

New Zealand weather and climate news (MetService focus)

[Former TVNZ weather presenter proves she still 'has the magic' more than 30 years on TVNZ](#)

MetService today tweeted out an image of Allum presenting weather in the 70s, juxtaposed with an image of her having a crack with the latest ...

[Veronica Allum presents the weather on TVNZ's Top Half in 1986](#)

TVNZ

... playlist will load after this ad. Allum recently visited **MetService**, where she picked up the new presenting technology like "a pro". Source: YouTube ...

[More fog expected in Hawke's Bay as flights affected](#)

New Zealand Herald

MetService meteorologist Tom Adams said from Wellington the fog was expected to clear by the "middle of the day", assisted by an easterly.

[Kiwis urged to check flu-like symptoms experienced during pine pollen season aren't Covid-19](#)

TVNZ

Tom Adams, **MetService** meteorologist says heavy rain can take the pollen out of the air, but much of the country won't see rain for the next while.

[Weather records show extraordinary rainfall that led to Northland floods](#)

Stuff.co.nz

Northland's extreme rain event led to more than \$17.6 million damage to roads and local services, as well as thousands of **insurance** claims.

[Northland floods: Storm damage \\$17.6m-plus, as roads, classrooms remain closed](#)

Two weeks after Northland's [devastating floods](#), the cost of the clean-up is being estimated in the [tens of millions](#), and roads, classrooms and offices remain closed.

[Northland drought intensified flooding impact, road closures, expert says](#)

The [Northland floods](#), which poured into thousands of buildings and closed [hundreds of roads](#), were more destructive due to the [long-running drought](#) in the region, experts say.

[Cost Of Southland February Floods Grows To \\$29.6m To Support Customer Recovery](#)

Scoop.co.nz

The extent of damage caused by the February floods has been reaffirmed, with **insurance** customers receiving \$29.6 million for **weather** related losses.

[Next three months warmer than usual in north, chance of drenching northeasterlies](#)

Temperatures are "very likely" to be above average in the north and west of the North Island during the next three months, while a [continuing risk remains of heavy northeasterly rain](#) for the north and east.

[Mild weather marks the start of August in Hawke's Bay](#)

New Zealand Herald

However, **MetService** meteorologist Tui Mcinnes said there's a slight possibility of rain, most likely later on Saturday or Sunday, but it will be "a fleeting ...

[Static weather conditions over NZ](#)

SunLive

MetService has this trend continuing through the weekend for many. “A blocking high comes in and just sits there, dwindling all that the weather throws ...

[Auckland drought: No relief in August forecast with only showers ahead](#)

Hopes for a surprise end to [Auckland's water supply woes](#) have not been helped by the latest medium-term weather forecast.

[Auckland drought: Why floating desalination plants got the thumbs down](#)

One or even two huge floating desalination plants, to turn seawater into fresh water, were briefly considered as solutions to [Auckland's drought-driven water shortage](#).

[Seasonal outlook: Why Auckland may keep missing out on rain](#)

New Zealand Herald

... a La Nina forming up somewhere in the back half of the year, or our climate lingering in its current **EI Nino**-Southern Oscillation (ENSO) neutral state.

[‘The week that snowed’ – shedding new light on old weather records](#)

Take some old weather records. Add citizen scientists. Mix in machine learning from Microsoft's ‘AI for Earth’ project.

And what you end up with is something that might help predict future weather patterns.

MetOcean (and oceanmet, marine weather etc)

[Warmer Ocean Waters Impacting More Than The Environment](#)

Forbes

As the **meteorological** community continues to research and model **weather** data based on evolving climate conditions, we can continue to help keep ...

[Sharks are thriving at the Kermadec Islands, but not the rest of New Zealand, amid global decline](#)

A [recent global assessment](#) of shark populations at 371 coral reefs in 58 countries found no sharks at almost 20% of reefs and alarmingly low numbers at many others.

[New current that transports water to major 'waterfall' discovered in deep ocean](#)

An international team discovered a previously unrecognized ocean current that transports water to one of the world's largest 'waterfalls' in the North Atlantic Ocean: the Faroe Bank Channel Overflow into the deep North Atlantic.

[Danish consultancy launches offshore simulation tool](#)

reNEWS

... reanalysis of 30 years of **metocean** data. ERA5 data has been provided by the European Centre for Medium-Range Weather Forecasts, Lautec said.

NIWA

[Mild end to winter tipped for country](#)

New Zealand will experience a mild end to winter and remains on a “La Nina watch”.

Cold snaps and frosts should still be expected in typically colder locations, according to Niwa's seasonal climate outlook for the next three months.

WMO

[International team of scientists involved in Years of the Maritime Continent collaboration shows that social-media and newspaper reports reveal large-scale meteorological drivers of floods on Sumatra - BMKG](#)

Research meteorologists from Poland (Institute of Geophysics Polish Academy of Sciences, Collegium Civitas), USA (Naval Research Laboratory, Scripps Institution of Oceanography) and Indonesia (Agency...

[Arctic: heat, fire and melting ice](#)

Exceptional and prolonged heat in Siberia has fuelled devastating Arctic fires. At the same time, rapidly decreasing sea ice coverage has been reported along the Russian Arctic coast.

[With marine weather broadcast service by GK2A satellite, get weather information more easily even when you are offshore - Korea Meteorological Administration](#)

The Korea Meteorological Administration (KMA) has started marine weather broadcast service by GK2A satellite, Korea's second geostationary meteorological satellite, from July 23, 2020, which provides...

Volcano alert/watch

[White Island's 'volcanic unrest', smoke plume no cause for concern - experts](#)

Newshub

Over the past week, **White Island** has appeared to display a higher level of activity but GNS Science has revealed the plume is just due to a change of ...

[Volcanic Auckland: Which type of eruption happens where?](#)

Scientists have moved closer to creating a realistic picture of what types of eruptions could unfold around New Zealand's biggest city.

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

[From beach houses to villa alterations: Best Auckland architecture celebrated in NZIA awards](#)

The tiny hut on remote Raoul Island in the Kermadecs, by Bull O'Sullivan Architecture, is a weather station. "Simple concrete footings, welded stainless superstructure and a stainless-steel skin will ensure this vital piece of weather monitoring equipment lasts for decades to come," the jury said.

Extreme weather (and other news) – Australia and Pacific

[Erosion risks 'underestimated' as more wild weather forecast](#)

The Sydney Morning Herald

Coastal NSW faces the possibility of a third bout of wild **weather** in less than a month as **insurance** advisers warn the risks from multiple storms are ...

[BOM warns of flooding as WA's south coast gets first rain in years](#)

South coast farmers have recorded their first significant rainfall in years, with the Bureau of Meteorology warning of potential flooding overnight.

[Karratha faces a \\$6m clean-up bill after Tropical Cyclone Damien](#)

The cost of cleaning up after Tropical Cyclone Damien, which smashed into the Pilbara in February stands at \$5 million for the City of Karratha — and the job is not over yet, say local authorities.

[SA town records its lowest temperature as bureau forecasts rain and possible snow](#)

Parts of South Australia have shivered through icy temperatures overnight, with one south-east town recording its coldest minimum on record.

[Cold front brings snow to Tasmania as weather alert issued for damaging winds](#)

Snow and wild weather across Tasmania has caused power cuts and road closures, stranding dozens of vehicles — and the Bureau of Meteorology predicting damaging winds for much of the south and east.

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

[Several cities in Iraq reach 53°C amid intense heat wave](#)

The Weather Network

The **Weather Network** meteorologist Tyler Hamilton says that the sweltering conditions are courtesy of heat dome, which is a ridge of high pressure ...

[Growing floods toll hampers coronavirus efforts in South Asia](#)

Torrential downpours in the region, while critical to replenishing water sources, also cause death and destruction.

[An ancient submerged town reappears during a drought in the Philippines](#)

A 300-year-old town in the Philippines that was submerged to build a dam in the 1970s is visible again after drought caused the water to recede.

The once-bustling Old Pantabangan town in Nueva Ecija province has not been seen for almost half-a-century.

[Storm Sinlaku hits Thai north and northeast, flash floods affect over 1000 houses](#)

Pattaya Mail

Several provinces in **Thailand's** North and Northeast have been hit by torrential rains, ... The **Meteorological** Department has issued **weather** warnings.

Extreme weather (and other news) – Americas and Europe

['Is this really happening?': Meteorologist recalls Edmonton's deadly Black Friday tornado 33 years ...](#)

Edmonton Journal

Dan Kulak, a **meteorologist** with Environment Canada, said he was a student working a construction job at the time when the storm hit. “I was listening ...

[Climate change: UK weather records tumbled in 2019](#)

BBC Focus Magazine

“Whilst this may not sound like much, research using these **citizen science** records has shown this can have dire impacts further down the food chain. “ ...

[Deaths as storm slams US east coast](#)

Tropical Storm Isaias triggered rare tornadoes and knocked out power as it raced up the US East Coast on Tuesday (local time), killing at least one man in New York City and two others in North Carolina where a twister obliterated a mobile home park.

International news and research

[Hot ocean waters along East Coast are drawing in 'weird' fish and supercharging hurricanes](#)

Washington Post

Both short-term (back to the early 1980s) data drawn from **weather satellites** and longer-term (back to the late 1800s) indicators show significant ...

[China Recorded No Typhoons in July. That's Unusual.](#)

Sixth Tone

The parallels between 1998's and this year's unusual **weather** patterns are hard to ignore. ... are currently tracking a tropical disturbance in the **South China Sea** that could turn into a typhoon and make landfall Saturday in Hainan.

[Short wind turns with strong cooling effect](#)

Posted: 31 Jul 2020 07:26 AM PDT

Why is the sea surface temperature of the northern tropics in the summer months often lower than expected? New research shows that a short-term, wind-driven wave phenomenon provides very efficient vertical mixing and cooling of the upper water layer.

[CBI Books Meteorologist for Alleged Irregularities in Procurement of 12 Display Boards for IITM](#)

News18

Share this: The CBI has booked eminent **meteorologist** Gufran-Ullah Beig for alleged irregularities in procurement of 12 digital display boards for the ...

[Scientists reveal roles of wind stress and subsurface cold water in the second-year cooling of the ...](#)

Phys.Org

"ENSO [**El Niño**-Southern Oscillation] is the major mode of interannual variability in the tropical Pacific climate system," explains Dr. Feng, "and its ...

[Improving the accuracy of typhoon forecasts with radar data assimilation](#)

Phys.Org

... of radar **data**," says Tian. "We hope it will help improve the accuracy of small- and medium-scale weather forecasts in numerical **weather forecasting**."

[Germany-wide rainfall measurements by utilizing the mobile network](#)

Posted: 03 Aug 2020 09:01 AM PDT

Whether in flood early-warning systems or in agriculture - rainfall measurements are of great importance. However, there is a lack of accurate data for many regions in the world due to the fact that comprehensive measurements have so far been too expensive. Researchers have now succeeded in utilizing the commercial microwave link network operated by mobile network providers for Germany-wide rainfall measurements.

[NASA data helps new model predict big solar flares](#)

Posted: 31 Jul 2020 10:56 AM PDT

Scientists have developed a new model that successfully predicted seven of the Sun's biggest flares from the last solar cycle, out of a set of nine. With more development, the model could be used to one day inform forecasts of these intense bursts of solar radiation.

[Combating a pandemic is 500 times more expensive than preventing one, research suggests](#)

Posted: 28 Jul 2020 09:12 AM PDT

The failure to protect tropical rain forests has cost trillions of dollars stemming from the coronavirus pandemic, which has wreaked economic havoc and caused historic levels of unemployment in the United States and around the world, experts argue in a new article.

[India Meteorological Department Will Use Artificial Intelligence For Weather Forecasting](#)

Analytics India Magazine

For example, Doppler radar gauges precipitation in real-time, **weather satellites** furnish multispectral imaging, ground stations estimate wind and ...

[Space-age approach to natural disasters urged, with use of apps and drones](#)

ABC News

... active fire mapping, the detection of smoke and understanding **weather** conditions ... He also told commissioners, **satellites** could play a role in showing the extent ... He said part of the problem was Australia did not own a **satellite**.

[NASA Satellites Show Two Canadian Arctic Polar Ice Caps Gone as Predicted in 2017](#)

Nature World News

Two polar ice caps in the Canadian Arctic region have disappeared due to global warming and **climate** change, according to **satellite** images from ...

['Category 6' Uses Technology And Adrenaline To Research Extreme Weather Trends](#)

Forbes

Extreme **weather** is simultaneously dangerous and awe inspiring. In the wake of Hurricane Hanna making landfall in Texas a week ago, and with ...

Weather companies

[Cloud for Clouds: ClimaCell Leverages Cloud HPC to Deliver Weather Micro-Forecasting](#)

EnterpriseAI

Weather forecasting is a tricky, unforgiving business, and for ... forecasts, relying on upgraded cloud computing to quickly process disparate **data**.

Aviation

[Rocket Lab to Resume Electron Launches in August](#)

Space Ref

Press Release From: **RocketLab**. Posted: Friday, July 31, 2020. **Rocket Lab** today announced that it has received approval from the Federal Aviation ...

Climate change / global warming / sea level rise

[Climate change risks and opportunities outlined in government report](#)

The country's first national climate change risk assessment has identified 10 significant areas that need to be urgently addressed by the government in the next six years.

[How this Dutch city is redesigning itself for extreme heat](#)

“While we keep fighting climate change for coming generations, we have to adapt to climate change as we see the consequences of climate change today.”

[Calls for ‘managed retreat’ law due to climate change](#)

The review of the Resource Management Act has recommended that a new law be added to the books to handle adaptation to the impacts of climate change, Marc Daalder reports

[Unwelcome sea change: new research finds coastal flooding may cost up to 20% of global economy by 2100](#)

Over the past two weeks, storms pummeling the New South Wales coast have left beachfront homes at Wamberal on the [verge of collapse](#). It's stark proof of the risks climate change and sea level rise pose to coastal areas.

[Sir Jonathon Porritt: A decade to confront the climate emergency](#)

New Zealand-born environmental activist Sir Jonathon Porritt says climate breakdown is both an urgent challenge to our economic orthodoxy and our spiritual and material evolution as a species.

Communications/social media

[10 email alerts you'll actually want in your inbox](#)

Popular Science

Numerous weather forecasting services offer an email service free of charge, including AccuWeather and The Weather Network, but you can also set ...

[COVID-19 Sees Natural Hazard Awareness Information Taken Online](#)

In late March, as the nation went into lockdown for COVID-19, local hazard education providers AF8 (Alpine Fault magnitude 8) and East Coast Life at the Boundary (East Coast LAB) had hoped to be on the road, informing local communities about the risk posed by two of Aotearoa's most significant natural hazards, the Hikurangi subduction zone and Alpine Fault. But, as happened with so many parts of New Zealand life, the pandemic forced a change in approach and thinking.

[14-year-old from North Kingstown who's blind has amazing weather broadcasting skills](#)

Turn to 10

"I have an app for the blind that reads pictures, so that's how I get most of the weather graphics read to me which is really great," he said. "I have to ...

Covid-19

[Concerns New Zealanders becoming complacent about threat of second wave of Covid-19](#)

There are concerns Kiwis are becoming too complacent about the threat of a second wave of Covid-19 in New Zealand, with test numbers remaining very low.

Energy and Mining

[FirstEnergy : Meteorologist Help Prepare Utilities for Summer Weather](#)

marketscreener.com

Meteorologists like Tom Workoff constantly monitor the weather across our entire service territory to give as much warning as possible of potentially ...

[Harnessing wind data to help meet energy needs in Florida](#)

Posted: 30 Jul 2020 01:08 PM PDT

A new study shows how upcoming technological advances could make wind energy a hot commodity in the Sunshine State.

[MALI: Reuniwatt to build weather forecasting system for Fekola solar hybrid power plant](#)

AFRIK 21

The Canadian mining company has chosen Reuniwatt to install a **weather forecasting** system to optimise the operation of the future off-grid plant. As part ...

History

[Curious Questions: Who invented the weather forecast?](#)

Country Life

The tipping point came on the night of 25th and 26th October 1859 when a storm, the worst to hit the Irish **Sea** in the 19th century, destroyed 133 **ships**, ...

Innovation and technologies and AI

[India Meteorological Department to use AI in weather forecasting](#)

Deccan Chronicle

The NOAA said through this, it seeks to reduce the cost of **data** processing, and provide higher quality and more timely scientific products and services ...

Satellites and radar

[General Atomics to design Space Force weather satellite prototype](#)

SpaceNews

"EWS will demonstrate new **technologies** and lead to optimized future capabilities for effective **weather** prediction," Nick Bucci, General Atomics ...

[NASA-NOAA's Suomi NPP Sees Siberian Smoke Reach Alaska](#)

nasa.gov

The first JPSS **satellite**, now called NOAA-20, launched in November 2017. Suomi-NPP and JPSS **satellites** produce data used for **weather** forecasting ...

Space weather

[Breakthrough method for predicting solar storms](#)

Extensive power outages and satellite blackouts that affect air travel and the internet are some of the potential consequences of massive solar storms. These storms are believed to be caused by the release of enormous amounts of stored magnetic energy due to changes in the magnetic field of the sun's outer atmosphere - something that until now has eluded scientists' direct measurement. Researchers believe this recent discovery could lead to better 'space weather' forecasts in the future.

Transport/roading/shipping/freight

[Developing a new generation of e-navigation tools](#)

Riviera Maritime Media

Wärtsilä Navi-**Port** has been approved by class society Bureau Veritas and ... "We can create optimised routes according to **weather** information and ...

Weather in pictures

[See a typhoon swirl and a volcano erupt in same striking view from space](#)

CNET

Satellites can see the big picture of what's happening down on Earth. Japanese **weather satellite** Himawari-8 spotted an unusual pairing over the ...

Journal and articles online

[Probabilistic high-impact rainfall forecasts from landfalling tropical cyclones using Warn-on-Forecast system](#)

Nusrat Yussouf, Thomas A. Jones, Patrick S. Skinner

Pages: 2050-2065 | First Published: 10 March 2020

A 15 min cycled, convective-scale, ensemble-based data assimilation and prediction system, known as the Warn-on-Forecast System shows promise in predicting near-term 0–6 hr intense rainfall forecasts from landfalling tropical cyclones.

[Background error statistics in the Tropics: Structures and impact in a convective-scale numerical weather prediction system](#)

Joshua C. K. Lee, Xiang-Yu Huang

Pages: 2154-2173 | First Published: 12 March 2020

We investigate the structures and impact of the background error covariance matrix for a tropical convective-scale numerical weather prediction system, SINGV-DA, using pseudo-single observation tests. Horizontal and vertical structures may closely resemble an equatorial Kelvin wave. Month-long trial results suggest that weak mass–wind coupling, shorter horizontal length-scales for wind, and larger wind background error standard deviations in the structures may be desirable for tropical convective-scale data assimilation.

Sub-seasonal to seasonal prediction of rainfall extremes in Australia

Andrew D. King, Debra Hudson, Eun-Pa Lim, Andrew G. Marshall, Harry H. Hendon, Todd P. Lane, Oscar Alves

Pages: 2228-2249 | First Published: 18 March 2020

Bar graphs showing the area of Australia with significant concurrent Spearman rank correlations (p -value < .05) between mean and extreme rainfall indices and (a) Niño-3.4, (b) DMI, (c) north Australian SSTs, and (d) any of the three climate modes. The legend on the right indicates which bars correspond to which indices with mean rainfall in black, intensity-based indices in red, frequency-based indices in orange and a contribution-based index in blue.

The potential use of operational radar network data to evaluate the representation of convective storms in NWP models

Thorwald H. M. Stein, Robert W. Scovell, Kirsty E. Hanley, Humphrey W. Lean, Nicola H. Marsden

Pages: 2315-2331 | First Published: 25 March 2020

Operational radar networks can be used to study the characteristics of convective storms, including their 3D morphology and development throughout the day. Two 3D composite radar products are verified against high-resolution radar observations and are found to be reliable for analysis of storm structures using low reflectivity thresholds, but not for high thresholds associated with small-scale features such as convective cores. The 3D composite data (Radar) shed new light on the development of convective storms in convection-permitting NWP models (Model).
