

New Zealand weather and climate news

MetService focus

These clips come courtesy of MetService Library

Rangitata flooding: SH1 reopens after flooding

State Highway 1 across the flood-ravaged Rangitata River in South Canterbury has reopened.

The highway reopened at 6pm on Wednesday after being closed since late Saturday morning.

Weather relief allowing crews a 'good window' to clear South Island highway blockages

Stuff.co.nz

A period of settled weather help allow crews clear slips blocking several major routes across the South Island. MetService meteorologist Andrew ...

Red sky in morning: Bush fires bring spectacular sunrise to Hawke's Bay

New Zealand Herald

MetService Meteorologist Andy Best said the bright, red colours seen in sunrises and sunsets are caused by smoke haze raging across Australia.

Rivers dry out as temperatures soar towards 30C in Hawke's Bay

New Zealand Herald

MetService's Stephen Glassey said there has been a northwesterly flow over the country since Sunday which has been responsible for the warm and ...

Big early dry: Hawke's Bay farmers concerns high despite overnight downfall

New Zealand Herald

The big early dry is starting to hit home for Hawke's Bay farmers, despite patches of rain on the horizon. MetService meteorologist Andrew James said ...

Fire restrictions loom for dry Marlborough

Marlburians will face pre-Christmas fire restrictions and authorities are urging rural residents to take precautions to minimise the chances of a big blaze.

Warm and gusty November for Whanganui; wind continues in December

New Zealand Herald

Whanganui didn't scorch as Kawerau did during the first week of November - but our average temperature was 1degC higher than usual, MetService ...

Smoke and dust from Australia's bushfires turns New Zealand's glaciers pink

The bushfire smoke haze plaguing Sydney has tuned the sky an eerie shade of yellow and the sun a menacing hue of red.

But its effects are being felt far outside New South Wales.

Civil Defence searching for 80 abandoned rental cars on the West Coast

Civil Defence staff on the West Coast are searching for 80 rental cars that tourists abandoned this week.

Northland shows signs of drought as water restrictions spread in Far North

Dry conditions in Northland and north Auckland are turning into drought conditions after an unusually dry winter.

Mapping by Niwa, the National Institute of Water and Atmospheric Research, shows soils were "extremely" drier than normal and drought conditions were evident in some parts of Northland.

A brief reprieve from rain, but a wet weekend brings more flood risks

Stuff.co.nz

Metservice meteorologist Andrew James said the front that caused the heavy rain last week had largely moved on, and would be replaced by a gentler ...

Unprecedented carbon monoxide readings in Central Otago

Researchers at NIWA's Lauder atmospheric research station in Central Otago have measured prolonged carbon monoxide concentrations well above normal levels.

Principal atmosphere technician Dan Smale said the poisonous gas was a product of the New South Wales bushfires that have been burning for several weeks. Measurements were made with an instrument known as an in-situ FTIR gas analyser which sucks in air from a height of 10m.

MetOcean

Climate change: Oceans running out of oxygen as temperatures rise

Dec 08, 2019 07:50 am

A warmer world means oceans are able to hold less dissolved oxygen, which is bad news for many fish.

Dr Natalie Robinson

An interview with marine physicist Dr Natalie Robinson of NIWA, who specialises in polar oceanography. Natalie's research contributes to understanding the oceanic connection between ice shelves and sea ice.

In her work, Natalie tries to understand the “nitty-gritty” so that other people can use her findings to make better predictions of how the ice will respond to a warming ocean. Her favourite aspects of her job are carefully thinking about what data tells her, coming up with new ideas and going to Antarctica. Natalie's research helps climate scientists to better understand what is happening with the Antarctic sea ice and what this means for global warming.

Volcano alert/watch

Ruapehu mayor says safety systems may be reviewed after Whakaari/White Island eruption

Stuff.co.nz

Ruapehu District Mayor Don Cameron said he thinks there will be a review of ... "Any heightened activity at Ruapehu or Tongariro, Department of ... in volcanic activity and alert levels between 0-5 scale the volcanic activity, he said.

Two more dead; Govt says no to private recoveries

Police Minister Stuart Nash says the government would not be offering permission for private recovery operations.

Ngāti Awa to play a key role in the Whakaari / White Island recovery operation

Details about the Whakaari / White Island recovery process have been released by police, with Ngāti Awa front and centre of the operation.

Whakaari / White Island eruption: What scientists say about the volcano

The volcano is monitored by GNS Science and its GeoNet project - a geological hazard monitoring system.

A statement from GeoNet about 4.30pm that "an eruption occurred at 14.11 local time as an impulsive, shortlived event and affected the crater floor. Activity appears to have diminished since the eruption.

Why White Island erupted, and why there was no warning

Volcanologists at GeoNet, which operates a geological hazard monitoring system, described the eruption as impulsive and short-lived, with an ash plume that rose to about three kilometres above the vent.

White Island blew as scientists were trying to predict hydrothermal eruptions

White Island blew just as scientists were part-way through a million-dollar study investigating whether they could ever warn of such quick-fire, steam-driven eruptions.

When Aotearoa heats up from below

Primary schools practise fire and earthquake drills, and most people are aware they should head to higher ground in a tsunami.

However, some scientists in New Zealand are focused on a very different, albeit potentially much more destructive threat - volcanoes.

Extreme weather (and other news) – Australia and Pacific

Weird weather 'anomaly' making Sydney choke

WHY IS THIS HAPPENING? Meteorologists have said it's due to the combination of two climate drivers and the late arrival of another. The El Nino and ...

Smoke and bushfires are the new norm, so how do we beat the 'airpocalypse'?

While towns along the east coast battle the blazes threatening to devour their homes, Sydney is fighting a different enemy: the pall of smoke that's choking the city.

How the world has reacted to Sydney smoke haze: 'It looks like hell'

Media outlets around the world have reacted as more than 100 blazes burn across NSW and Sydney's sepia-toned sky – the result of harmful smoke pollution – becomes the new norm.

More than 700 homes lost in New South Wales fires

The fire danger remains elevated across large chunks of New South Wales despite a southerly wind change that brought temperatures down as it swept up the coast.

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

Meteorological officials prepare for timely Games weather predictions

ecns

Meteorological departments in Beijing and Hebei province have prepared enhanced weather services to support the 2022 Beijing Winter Olympic and ...

Chinese vice premier stresses stronger meteorological services

Xinhua

Chinese vice premier stresses stronger meteorological services ... sci-tech innovation and breakthroughs in core technologies, deepen reform and ...

Saudi Arabia Backs Investment in Wireless Sensors to Forecast Floods, Weather Conditions ...

Asharq Al-awsat English

This step comes in line with the Kingdom's attempt to support and bolster technical innovations and exerted efforts by private financing entities to ...

Hong Kong government says new technology is protecting city against extreme weather on scale of ...

Yahoo Singapore News

New technology is helping to protect Hong Kong's extensive shoreline with the city facing more extreme weather in the coming years, government ...

Extreme weather (and other news) – Americas and Europe

Flooding and coastal damages risking £12bn to UK economy

Rising sea levels, storms and flooding driven by climate change has placed more than £12bn of the UK's economy at risk, according to new findings from WWF which warns that almost 2.5 million homes in the UK will be at risk of flooding by 2050.

New Zealand research

EQC funds \$1 million of research to reduce disaster risk

EQC has announced \$1 million of funding for 16 research projects to help reduce the impact of natural hazards on New Zealanders' homes, towns and cities.

Winners of the 2020 EQC Biennial Awards will be looking at everything from new ways to detect signs of eruption in volcanoes, testing new building materials, investigating a newly discovered fault on the Hauraki Plains, to developing low-cost early earthquake warning sensor networks.

International news and research

Why Are Some People Really Mean To Weather Forecasters And Climate Scientists?

Forbes

After Hurricane Michael (2018), I wrote an open letter to the National Hurricane Center staff to thank them and all meteorologists for their service.

More and More Links Are Emerging Between Warming and Extreme Weather

Scientists found the fingerprints of warming on heat waves, torrential rains and other major events in 2018

Atmospheric river storms create \$1 billion-a-year flood damage

Posted: 04 Dec 2019 12:28 PM PST

Researchers found that flooding has caused nearly \$51 billion in damages to western states in the last 40 years. More than 84 percent of these damages were caused by atmospheric rivers (ARs), long narrow corridors of water vapor in the atmosphere capable of carrying more than twice the volume of the Amazon river through the sky.

Three Tropical Cyclones Lurk Near Africa and One Has Set a New Rapid Intensification Record

The Weather Channel

The tropics are getting crowded once again during this record season in the Indian Ocean as a phenomenon similar to a strong El Niño keeps waters ...

Homes plans for sites next to Met Office and Ikea revealed

Devon Live

The separate schemes will see 200 homes built at a site on Barton Road, right next to the Met Office, while a further 200 homes are proposed to be ...

Damaging rains from hurricanes more intense after winds begin to subside

Howling wind drives torrential rain sideways as tall, slender palms bow and tree limbs snap. As a hurricane approaches, its gale-force winds wreaking havoc as it nears the coast. Storm surges combine with the downpour, inundating the area with water.

Closing critical gap in weather forecasting

Scientists working on the next frontier of weather forecasting are hoping that weather conditions 3-to-4 weeks out will soon be as readily available as seven-day forecasts. Having this type of weather information--called subseasonal forecasts--in the hands of the public and emergency managers can provide the critical lead time necessary to prepare for natural hazards like heat waves or the next polar vortex.

What next for machine learning in weather forecasting?

ECMWF

Peter Düben is ECMWF's coordinator for artificial intelligence and machine learning activities. The use of machine learning in numerical weather

Ice in motion: Satellites capture decades of change

New time-lapse videos of Earth's glaciers and ice sheets as seen from space -- some spanning nearly 50 years -- are providing scientists with new insights into how the planet's frozen regions are changing.

Large atmospheric waves in the jet stream present risk to global food production

Researchers have discovered jet stream patterns that could affect up to a quarter of global food production.

Volcano F is the origin of pumice-rafts near Australia

Since August a large accumulation of pumice has been drifting in the Southwest Pacific towards Australia. Researchers have now identified the origin of this pumice raft. It is a so far nameless underwater volcano in Tongan waters.

Quack Kenyan weathermen cash in on floods misery

The Star, Kenya

The proposed Meteorological Bill proposes a three-year jail-term for quacks ... Currently, there is no specific law against quack meteorologists.

Weather companies

Buoyed by acquisitions, a Burnsville company is one of the world's leaders in weather information

Minneapolis Star Tribune

DTN provides a variety of weather services for agriculture, airlines and airports, utilities, shipping, and the sports and recreation industries, among ...

NOAA should be willing to buy weather data from private companies

Washington Post

The thesis of the Dec. 1 Business article “Weather is big business. And that could be trouble for the public.” was that public weather forecasting is ...

Why collaboration is not a collision when private weather companies work with the federal ...

Washington Post

The Washington Post published a story last week by Andrew Freedman titled “The weather is big business, and it's veering toward a collision with the ...

5G network

Study reveals many Kiwis believe urban myths, misinformation about 5G

New Zealand Herald

Others expressed fears about the technology damaging people, plants or ... did not show any threat to bees, weather forecasting equipment or people from 5G. ... A new plain-English Q&A about the new mobile technology, published ...

Aviation

FAA to Decommission Decades-Old System that Keeps Pilots Up to Date on Hazardous Weather

Nextgov

The Federal Aviation Authority is discontinuing a nonstop broadcast service that's been keeping pilots aware of dangerous weather during flights since ...

Blast off: Rocket Lab successfully launches 10th mission

New Zealand Herald

Rocket Lab has celebrated its 10th successful mission from its launch pad on the Mahia Peninsula. The mission was named "Running Out Of Fingers", ...

Business/Insurance

Tesco considers sale of Thai and Malaysian operations

BBC News

The UK's biggest retailer, Tesco, is considering a retreat from markets in Asia with the sale of its profitable operations in Thailand and Malaysia.

Communications/social media

The Weather Channel Uses Immersive Mixed Reality to Bring Weather to Life

MediaVillage

According to director of weather presentation Mike Chesterfield in a piece about this technology in Fast Company, "That was the first aha moment for ...

Satellites and radar

Formosat-7 weather data available for download: CWB

Taipei Times

Weather data collected through the Formosat-7 satellite system can now be downloaded through the Central Weather Bureau's (CWB) Taiwan ...

Tourism

Tourists visiting New Zealand need to be well-informed of risks, professor says

A professor of tourism says he's been told the tour operators on Whakaari / White Island are some of the most professional out of companies operating around volcanoes.

Transport/roading/shipping/freight

Road transport group blames lack of spending on roads after weather causes damage

The group representing the road transport industry blames a lack of investment in roading for the degree of damage caused by storms.

'Substantial disruption': Crucial bridge reopens, work continues to restore access on West Coast

As the waters receded, motorists queued for hours to cross a crucial bridge that reopened Monday following heavy rain, slips and flooding that wreaked havoc in the South Island.

Climate change / global warming / sea level rise

Pak fifth most vulnerable to climate change: Study

Deccan Herald

Pakistan ranked fifth among countries, which are most vulnerable to climate ... According to the Global Climate Risk Index, Pakistan lost 9,989 lives, ... (Thailand and Dominica) and one is an advanced economy (Puerto Rico).

Conferences and professional development

Disaster risk reduction in action : An upcoming Conference in Adelaide

Pathways to impact

Disaster risk reduction provides a path forward where 'business as usual' is no longer adequate. But what does that mean, and how do we take tangible action that leads to impact?

26-27 August 2020 | Adelaide Convention Centre | #ADRC20

The Australian Disaster Resilience Conference returns in 2020 to help the nation move forward with a new agenda for disaster risk reduction to build resilience. In its third year, the conference will address the theme: Disaster risk reduction in action: pathways to impact.

The conference invites abstracts on case studies, research, partnerships and good practice models that look at disaster risk reduction through cross-sector collaborations, and showcase initiatives bringing about change in business, not-for-profit, government, community, academia and emergency management.

Submit your abstract of no more than 300 words for a conference presentation on stage and/or a poster display in the AIDR Knowledge Centre. All contributions will be peer reviewed by the program committee with respect to the conference theme. The abstract portal closes Monday 10 February 2020.

=====

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.

December 10, 2019

News

[Last remaining glaciers in the Pacific will soon melt away](#)

December 9, 2019 - Phys.org

The last remaining tropical glaciers between the Himalayas and the Andes will disappear in the next decade—and possibly sooner—due to climate change, a new study has found.

[Read MORE](#)

[Report: Climate change is making specific weather events more extreme](#)

December 9, 2019 - NOAA

Scientists say these remarkable 2018 extreme weather events were made more likely by human-caused climate change, in new research published today in the Bulletin of the American Meteorological Society (BAMS).

[Read MORE](#)

[NASA examines Tropical Cyclone Belna's water vapor concentration](#)

December 9, 2019 - EurekAlert!

When NASA's Aqua satellite passed over the Southern Indian Ocean, water vapor data provided information about the intensity of Tropical Cyclone Belna.

[Read MORE](#)

[The Arctic atmosphere -- A gathering place for dust?](#)

December 9, 2019 - EurekAlert!

The atmosphere of the central Arctic is polluted with fine dust from Siberia and North America.

[Read MORE](#)

[How AI is helping spot fires faster](#)

December 5, 2019 - MSN.com

As wildfire season raged in California this fall, a startup a few states away used artificial intelligence to pinpoint the location of blazes there within minutes — in some cases far faster than these fires might otherwise be noticed by firefighters or civilians.

[Read MORE](#)

[Space budget boost puts Europe in lead to monitor carbon from space](#)

December 5, 2019 - Science

With the unexpected windfall, ESA will develop a reusable space cargo capsule, support the International Space Station until 2030, and join NASA in retrieving rocks from Mars.

[Read MORE](#)

[A Weirdly Perfect Cloud Curve Appeared Over the US](#)

December 5, 2019 - Gizmodo

A spectacular cirrus arc, which stretched from Nebraska to northern Minnesota and Canada, foreshadowed the recent winter storms in the Midwest and New England.

[Read MORE](#)

[Atmospheric river storms create \\$1 billion-a-year flood damage](#)

December 4, 2019 - Phys.org

Atmospheric rivers pose a \$1 billion-a-year flood risk in the West, according to a study released today.

[Read MORE](#)

[Sun's close-up reveals atmosphere hopping with highly energetic particles](#)

December 4, 2019 - Phys.org

Outbursts of energetic particles that hurtle out from the sun and can disrupt space communications may be even more varied and numerous than previously thought, according to results from the closest-ever flyby of the sun.

[Read MORE](#)

[Headlined by horrible Dorian and other freak storms, the 2019 Atlantic hurricane season is done](#)

December 4, 2019 - SFGate

The 2019 Atlantic hurricane season, the fourth in a row with above-average activity, was one we won't soon forget.

[Read MORE](#)

[Are You Dreaming of a White Christmas? A Look at the Chances in Your Backyard](#)

December 6, 2019 - WeatherNation

This map shows the historic probability of there being at least 1 inch of snow on the ground in the Lower 48 states on December 25 based on the latest (1981-2010) U.S. Climate Normals from NOAA's National Centers for Environmental Information (NCEI).

[Read MORE](#)

[Radar study targeting wind events at NASA, Air Force launch facilities](#)

December 6, 2019 - Livingston Ledger

Rockets rolling to their launch towers at both the Cape Canaveral Air Force Station and NASA's Kennedy Space Center in Florida (and the people who work on them) may soon be a little bit safer, thanks to research in the Atmospheric Science Department at The University of Alabama in Huntsville (UAH).

[Read MORE](#)

[Study: UM-led experiment closes critical gap in weather forecasting](#)

December 7, 2019 - TunisieSoir News

Researchers working on the next frontier of weather forecasting are hoping that weather conditions 3-to-4 weeks out will soon be as readily available as seven-day forecasts.

[Read MORE](#)

American Meteorological Society

=====

Thanks to our regular contributors