

New Zealand weather and climate news

MetService

Rain and snow batters south

7:12 AM Heavy rain is expected and a major tourist route is closed due to forecast snow.

Holidaymakers delighted with snowy Tekapo

Stuff.co.nz

Tekapo woke to a dusting of snow on Wednesday morning. MetService meteorologist **April Clark** said while the agency doesn't have an automatic ...

Mostly dry July for Timaru but wet weekend expected as school holidays end

Stuff.co.nz

"You guys have fared a lot better than those kids on the West Coast and in the North Island," **MetService** meteorologist **April Clark** said, on Wednesday ...

Heavy rain showers drench Palmerston North

Stuff.co.nz

MetService meteorologist **April Clark** said there was a moderate thunderstorm risk in Manawatū on Wednesday and the type of clouds that had formed ...

Snow closes South Island's Lewis Pass

Stuff.co.nz

The MetService issued a road snowfall warning on their website on Wednesday afternoon. It said up to 2 centimetres of snow may settle near the ...

Lightning hits retirement village as 5500 bolts hit New Zealand in heavy weather

Lightning striking a retirement village in Levin was one of 5500 lightning bolts that were recorded over central New Zealand on Sunday.

MetService meteorologist **Hannah Moes** said an active front was moving over the upper South Island and lower North Island early on Sunday morning.

More than 4500 lightning strikes hit New Zealand over 24 hours

New Zealand Herald

You could be forgiven for thinking the country has been stuck in an AC/DC music video with all the lightning strikes which hit over the weekend.

Dunedin-bound flight hit by lightning

Otago Daily Times

According to MetService, in the North Island there were scores of lightning strikes this morning, mostly around Wellington and Taranaki, while in the ...

Happy weather day: Take a day off from wild weather, New Zealand, but reprieve short-lived

New Zealand Herald

MetService meteorologist **Andy Best** said a "train of lightning strikes" passed across Northland's west coast at Baylys Beach between 12.45pm and ...

Northland lightning strike shatters windscreen of family car

Meteorologist **Peter Little** said lightning strikes to cars were extremely uncommon. The more usual places for strikes were trees, buildings or open fields.

Wild weather in Taranaki brings highway slip and power outages

Wild weather in Taranaki caused power outages and a road slip that blocked the main state highway for northbound traffic.

Two buildings, trees, trampoline damaged by Taranaki tornado

A tornado has torn through a New Plymouth suburb, damaging two buildings in its path.

Mt Ruapehu eruption alarms triggered by earthquakes and wind gusts

A "perfect storm" of earthquakes and high winds triggered Mt Ruapehu's eruption alarms on Sunday.

'Front after front': Wild week set to bring snow, downpours, gales

Another round of stormy weather is closing in, bringing snow to low levels, downpours, gales and possible tornadoes to some areas - and yet another battering from the elements is due later in the week.

WMO

Climate Action is central to Sustainable Development Goals

Posted:

A new report has been published on the progress towards meeting the targets of the 17 Sustainable Development Goals or SDGs, which commit countries to mobilize efforts to end all forms of poverty,...

Unprecedented wildfires in the Arctic

Posted:

Unusually hot and dry conditions in parts of the northern hemisphere have been conducive to fires raging from the Mediterranean to – in particular – the Arctic. Climate change, with rising...

ECMWF

Natural Gas - Weather Model Disagreement Creates Opportunity

Seeking Alpha

ECMWF-EPS is far more bullish than GFS-ENS, which is going to create an opportunity going forward. We believe "king euro" is likely to be correct, ...

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

More than 100 dead, millions displaced in floods across South Asia

A deadly monsoon is wreaking havoc across South Asia, leaving more than 100 people dead and displacing millions more.

'They ask us if we can make it stop raining or make it rain': Life as a weather forecaster in Singapore

CNA

SINGAPORE: Nestled in a corner of Changi Airport, sheltered from the hubbub of one of the world's busiest airports, is the Meteorological Service's ...

Tropical Storm Danas to bring flood risk to Philippines, Taiwan; China, South Korea and Japan

...

AccuWeather.com

"At this point, AccuWeather **meteorologists** believe it will remain a tropical storm and not achieve typhoon status," according to AccuWeather Senior ...

Extreme weather (and other news) – Americas and Europe

Barry could cause up to \$10B in storm damage, **meteorologists** predict

New York Post

Experts estimate that the total damage and economic loss caused by Tropical Storm Barry — which is set to deliver a punishing blow to the Gulf Coast ...

US officials to make disaster warnings faster, clearer about life-threatening events

Washington Post

“Sometimes **meteorologists** will criticize people for looking outside for a sign of the storm, but that's a very natural instinct.” Floods, tornadoes, wildfires ...

Greek storms kill six as 'extremely unusual' weather prompts state of emergency

Six people, including two children, have been killed and more than 100 others injured after gale-force winds, rain and hailstorms struck northern Greece, uprooting trees and collapsing roofs.

UK weather forecast – Three-month heatwave to start with 27C scorcher this week and warm ...

The Sun

Claire Kennedy-Edwards, senior meteorologist for The **Weather Company**, told Sun Online: "It is a much more settled outlook across the UK with ...

International news and research

Embry-Riddle Aeronautic University Chooses Baron for **Weather** Tracking

Campus Safety Magazine

Baron, a leading provider of critical weather solutions, announces that ... analysis and forecasting, **aviation weather**, and tropical meteorology classes.

Ammonia from agriculture influences cloud formation over **Asia**

Science Codex

Ammonia from agriculture influences cloud formation over **Asia** ... Sensing Division of KIT's Institute of **Meteorology** and Climate Research (IMK-ASF).

The **Weather** Is Worse, but Forecasts Keep Getting Better

Slate Magazine

Nothing is more banal than talking about the **weather**. ... In the current one, he turns his eye toward the **satellites**, equations, and algorithms—and, yes, ...

Indian Ocean causes drought and heatwaves in South America

Researchers have revealed that atmospheric waves originating from convection over the Indian Ocean had a dramatic impact on climate conditions over South America and South Atlantic, leading to drought and marine heatwaves. Importantly, these conditions are not a one-off and are likely to happen again.

Andrew Blum: The Weather Machine How we See into the Future

An accurate weather forecast can change history. The ability to get the weather right is getting better all the time with advances in computer simulations, satellites and global cooperation. But the outlook for access to that vital information is not so sunny. Journalist, author and weather geek Andrew Blum explains how weather prediction works and why it's under threat in his new book, *The Weather Machine How we See into the Future*

Ask the Weather Guys: Did the moon landing influence weather forecasting?

Madison.com

With specific respect to **weather forecasting**, the space race was responsible for enormous advances in satellite **technology** that now provide the ...

Aviation

Sudden turbulence that injured dozens on Sydney-bound flight is hard to predict

Stuff.co.nz

Pilots rely on data from weather balloons and other pilots to predict turbulence but there is less information on conditions over the ocean than for over ...

Why the turbulence that injured passengers on an Air Canada flight is hard to predict

Boston.com

The plane may have run into clear air turbulence, which is caused by wind ... Pilots rely on data from weather balloons and other pilots to predict ...

'Sudden and severe' turbulence wreaks havoc on Emirates flight from Auckland

Passengers were terrified, vomiting and injured following severe turbulence on an Emirates flight from Auckland to Dubai.

The "sudden and severe turbulence" left the business class cabin in tatters with Champagne bottles on the floor, food carts overturned, and even a fallen exit sign.

Meteorologists say airplane turbulence can strike out of the blue

Texarkana Gazette

NEW YORK—They literally don't see it coming. "Clear-air turbulence," which evidently jolted an Air Canada flight Thursday over the Pacific Ocean,

The Best Defense Against Clear Air Turbulence Injuries Like Those Aboard Air Canada Flight Is ...

Forbes

While airlines and pilots plan their flight paths to avoid weather systems that could cause a risk to passengers, clear air turbulence, known as CAT, ...

China's civil aviation industry sees steady growth in H1

Xinhua

Amid increasing flights and extreme weather conditions, the flight on-time performance reached 80.35 percent. In the first half of 2019, the total ...

Business/Insurance

Insurers will manage, survive climate change risks – expert

Insurance Business New Zealand

Recent reports have projected extreme **weather** events and flooding could ... Chapman Tripp believes it will be beyond the control of **business**. It noted ...

Unlikely Industries That Use Weather To Make Business Decisions

Forbes

It influences peoples' moods, behaviors and performance, which is why the information and data that **meteorologists** can provide business owners ...

Energy and Mining

Last summer's heatwave made **electricity** price forecasts look foolish. Will it happen again?

RenewEconomy

Last summer's heatwave made **electricity** price forecasts look foolish. In the end, unsurprisingly, neither **weather** or **demand** forecasting is that ...

Natural Gas Rises on **Weather**, Storm-Induced Disruptions

Yahoo Finance

The U.S. **Energy** Department's weekly inventory release showed a ... industrial sector **demand** even as the usage of natural gas-fired **power** to run ...

Farming/horticulture/Aquaculture

Vic Government details farm IoT trial **technologies**

IoTAustralia (blog)

Vic Government details farm IoT trial **technologies** ... Monitor **weather** conditions including air temperature, relative humidity, barometric pressure, wind ...

King Salmon seeks consent to farm in Cook Strait next year

King Salmon has lodged a consent application to begin salmon farming in Cook Strait to escape the warming inner-shore waters.

Government (regional and national)

Government boosts R&D funding for pre-profit firms

Stuff.co.nz

... funding, the Minister for Research Science and Innovation, **Megan Woods**, has announced. ... **New Zealand** cannot afford not to innovate.

Hydrology / Flooding

Flood prediction model developed

The duration of floods can be determined by river flow, precipitation and atmospheric blocking. Now an international team of researchers is offering a novel physically based Bayesian network model for inference and prediction of flood duration. The model also accurately examines the timescales of flooding.

Lightning

Tracking Lightning To Prevent Fire

KDRV

stormwatch 12 **meteorologists** track storms and lightning through forecast models, radars and weather cams. but to prevent fires, our chief ...

Fatal lightning strikes down this year, but don't let your guard down

Atlanta Journal Constitution

There's no obvious reason, **meteorologists** say. It could be that there's more public awareness to the dangers of lightning, or the technology advances, ...

Satellites and radar

Soyuz Rocket Launches Russia's Weather Satellite

Market Reports

Russia has been launching such **weather satellite** into space. The first one which was called Meteor-M No1 was launched by Russia in the year 2009.

Fresh \$18.7 million funding round puts PlanetiQ weather constellation back on track

SpaceNews

WASHINGTON — After years of delays, PlanetiQ says its constellation of commercial **weather satellites** will be ready to start launching in January ...

Transport/roading/shipping/freight

CSIR Signs Weather-Monitoring Deal With Transnet

Railways Africa (press release)

The CSIR recently announced the signing of a three-year, multimillion-rand contract with Transnet National **Ports** Authority (TNPA) for the maintenance ...

Thicker pavement is more cost effective down the road

Posted: 10 Jul 2019 10:20 AM PDT

Pavements, which are vulnerable to increased temperatures and excessive flooding due to sea level rise, can crack and crumble. Climate change can be a major contributor and as greenhouse gas emissions continue these issues are projected to accelerate. Researchers say because of this one of the best ways to extend the life cycle of roads, and keep future costs down, is to increase the thickness of asphalt on certain roads.

Road to Zero road safety plan needs strong government investment to work - AA

The government needs to commit to spending serious money if it wants its plan to radically cut the road toll to work, the Automobile Association says.

Drones will help economy take off

Scoop.co.nz

Drones are estimated to be worth up to \$7.9 billion to the economy, **Transport Minister Phil Twyford** said at the launch of the Government's plan for ...

Climate change / global warming / sea level rise

2050 climate: Wellington becomes Auckland, Auckland becomes Sydney

Wellington's 2050 climate will resemble Auckland's today – while Auckland will feel more like Sydney, scientists say.

David Attenborough on climate change

The UK must take radical action to meet its climate change targets, David Attenborough told a UK parliamentary committee this week. But he warned that ministers must carry the public with them because of the financial cost of meeting the goals. **Read more**

How climate change is affecting what we grow and eat

Farmers and scientists are finding new ways to keep food on the table as rainfall patterns move and heatwaves increase.

Cloud seeding / Geoengineering

Indonesian Government Plans To Create Manmade Rain To Solve Air Pollution Problem

VICE

“In 2015, Thailand successfully conducted a **cloud-seeding** test run in response to air pollution in Bangkok, removing the inversion layer,” Seto told ...

Emergency preparedness / disaster planning / resilience

Heatwave guide for cities

16 Jul 2019

Red Cross Red Crescent Climate Centre

International Federation of Red Cross and Red Crescent Societies

This example shows that cities can rise to the challenge of coping with more frequent and extreme heatwaves. Cities have a unique potential to adapt to changing heat risks through effective risk management at multiple levels within a city; connecting policies and incentives; and strengthening community adaptation capacity. All of these facets make it extremely important for cities to undertake heat-related risk analyses and to devise plans for reducing and managing risks. This guide is intended to be a basic introduction to this topic and a resource for cities to start planning for extreme heat.

Killer heat in the United States: climate choices and the future of dangerously hot days

16 Jul 2019

Kristina Dahl, Erika Spanger-Siegfried, Rachel Licker, Astrid Caldas, John Abatzoglou, Nicholas Mailloux, Rachel Cleetus, Shana Udvardy, Juan Deplet-Barreto, Pamela Worth

Union of Concerned Scientists

For this national analysis, extreme heat is measured according to the heat index, the combination of temperature and humidity that creates the “feels like” temperature.

The analysis includes four different heat index thresholds, each of which brings increasingly dangerous health risks: above 90°F, above 100°F, above 105°F, and "off the charts." (Off-the-charts days are so extreme they exceed the upper limits of the National Weather Service heat index scale, which starts topping out at or above a heat index of 127°F, depending on the combination of temperature and humidity.)

The report features three time frames—historical, midcentury, and late century—and three different scenarios of climate action.

Journal and articles online

Quarterly Journal of the Royal Meteorological Society

Relative contribution of soil moisture, boundary layer and microphysical perturbations on convective predictability in different weather regimes

Christian Keil, Florian Baur, Kevin Bachmann, Stephan Rasp, Linda Schneider, Christian Barthlott

First Published: 06 July 2019

Polar low variability and future projections for the Nordic and Barents Seas

Oskar A. Landgren, Yurii Batrak, Jan Erik Haugen, Eivind Støylen, Trond Iversen

First Published: 06 July 2019

Summertime mid-latitude weather and climate extremes induced by moisture intrusions to the west of Greenland

Cory Baggett, Sukyoung Lee

First Published: 06 July 2019

A Simple Ensemble Approach for More Robust Process-Based Sensitivity Analysis of Case Studies in Convection-Permitting Models

David L. A. Flack, Suzanne L. Gray, Robert S. Plant

First Published: 06 July 2019

Wind turning in the atmospheric boundary layer over land

Jenny Lindvall, Gunilla Svensson

First Published: 04 July 2019

Towards a more reliable historical reanalysis: Improvements for version 3 of the Twentieth Century Reanalysis system

Laura C. Slivinski, Gilbert P. Compo, Jeffrey S. Whitaker, Prashant D. Sardeshmukh, Benjamin S. Giese, Chesley McColl, Rob Allan, Xungang Yin, Russell Vose, Holly Titchner, John Kennedy, Lawrence J. Spencer, Linden Ashcroft, Stefan Brönnimann, Manola Brunet, Dario Camuffo, Richard Cornes, Thomas A. Cram, Richard Crouthamel, Fernando Domínguez-Castro, J. Eric Freeman, Joëlle Gergis, Ed Hawkins, Philip D. Jones, Sylvie Jourdain, Alexey Kaplan, Hisayuki Kubota, Frank Le Blancq, Tsz-Cheung Lee, Andrew Lorrey, Jürg Luterbacher, Maurizio Maugeri, Cary J. Mock, G.W. Kent Moore, Rajmund Przybylak, Christa Pudmenzky, Chris Reason, Victoria C. Slonosky, Cathy Smith, Birger Tinz, Blair Trewin, Maria Antónia Valente, Xiaolan L. Wang, Clive Wilkinson, Kevin Wood, Przemysław Wyszyn'ski

First Published: 03 July 2019

Routes to long-term atmospheric predictability in coupled ocean-atmosphere systems – Impact of the ocean basin boundary conditions

Stéphane Vannitsem, Roman Solé-Pomies, Lesley De Cruz

First Published: 02 July 2019

Quantifying the global impact of tropical cyclone-associated gravity waves using HIRDLS, MLS, SABER and IBTrACS

Corwin J Wright

First Published: 02 July 2019

Relationship between atmospheric blocking and warm season thunderstorms over western and central Europe

Susanna Mohr, Jan Wandel, Sina Lenggenhager, Olivia Martius

First Published: 02 July 2019

Internal interannual variability of the winter polar vortex in a simple model of the seasonally evolving stratosphere

L. A. Hatfield, R. K. Scott

First Published: 02 July 2019

Processes determining heat waves across different European climates

Philipp Zschenderlein, Andreas H. Fink, Stephan Pfahl, Heini Wernli

First Published: 02 July 2019

Extreme rainfall sensitivity in convective-scale ensemble modelling over Singapore

Aurore N. Porson, Susanna Hagelin, Douglas F.A. Boyd, Nigel M. Roberts, Rachel North, Stuart Webster, LO Jeff Chun-Fung

First Published: 02 July 2019

Trends in and closure of the Atmospheric Angular Momentum budget in the 20th century in ERA-20C

Menno A. Veerman, Chiel C. van Heerwaarden

First Published: 02 July 2019

On the sensitivity of a 4D-Var analysis system to satellite observations located at different times within the assimilation window

A.P. McNally

First Published: 01 July 2019

Dutch Fog: On the Observed Spatio-Temporal Variability of Fog in the Netherlands

Jonathan G. Izett, Bas J. H. van de Wiel, Peter Baas, J. Antoon van Hooft, Ruben B. Schulte

First Published: 01 July 2019

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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.

July 16, 2019

Get Connected

News

[Weather Blog: Could the Atlantic Tropical Season Get Busier?](#)

July 15, 2019 - News 13

The latest outlook shows that the El Niño phase that we have been in over the past several months may come to an end in another month or two.

[Read MORE](#)

[Flying With the Hurricane Hunters Into Barry's Heart](#)

July 14, 2019 - MSN.com

Like doctors taking a CT scan, the hurricane hunters from the National Oceanic and Atmospheric Administration, based in Lakeland, Florida, and their partners went to get a snapshot of the storm's insides on Thursday.

[Read MORE](#)

[Alexa, what's the weather like today?](#)

July 12, 2019 - Medium

Can Alexa predict the next thunderstorm and save us from the next global crisis?

[Read MORE](#)

[The Gathering Storm Over How Hurricanes Are Measured](#)

July 12, 2019 - The Washington Post

A number of destructive storms have underscored the inherent weaknesses in the Saffir-Simpson Hurricane Wind Scale, and efforts continue to try to replace it with something more useful.

[Read MORE](#)

[Colorado's Hail Storms Were The Most Expensive In The Country Last Year. You Could Pay the Price](#)

July 12, 2019 - Colorado Public Radio

It's become a regular summer event on the Front Range: Ink-black clouds sweep through and unleash hail on homes, cars and unsuspecting people.

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[The Weather Is Worse, but Forecasts Keep Getting Better](#)

July 11, 2019 - Slate

How weather-prediction models improve—and why they haven't made the weatherman obsolete.

[Read MORE](#)

[Fresh \\$18.7 million funding round puts PlanetiQ weather constellation back on track](#)

July 11, 2019 - SpaceNews

After years of delays, PlanetiQ says its constellation of commercial weather satellites will be ready to start launching in January thanks to \$18.7 million in new capital.

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[Through Smoke and Fire, NASA Searches for Answers](#)

July 11, 2019 - NASA

While NASA keeps an eye on today's fires, it also tackles the big-picture questions that help fire managers plan for the future.

[Read MORE](#)

[Ammonia from agriculture influences cloud formation over Asia](#)

July 11, 2019 - EurekAlert!

Climate researchers of KIT solve the puzzle of a huge aerosol layer in the atmosphere -- results will improve climate models.

[Read MORE](#)

[D.C.'s 'Historic' Flash Flood May Soon Be Normal](#)

July 10, 2019 - CityLab

One-hundred-year storms, of the kind that wreaked havoc on the nation's capital Monday, are expected to become 1-in-25-year events by mid-century.

[Read MORE](#)

[How Much Water Do Snowpacks Hold? A Better Way to Answer the Question](#)

July 15, 2019 - Phys.org

Oregon State University researchers have developed a new computer model for calculating the water content of snowpacks, providing an important tool for water resource managers and avalanche forecasters as well as scientists.

[Read MORE](#)

[The World's Largest Iceberg Is 2 Years Old Today, and Already Drifting Toward Its Doom](#)

July 12, 2019 - Live Science

Eighteen months of satellite images show iceberg A68 — currently the world's largest iceberg (and the 6th largest ever recorded) — drifting 150 miles north toward the currents of the Southern Atlantic Ocean.

[Read MORE](#)

[Why Barry dropped much less rain on the Gulf coast than forecasters expected](#)

July 16, 2019 - Vox

We can anticipate where storms will go, but their rain and wind are far more difficult to predict.

[Read MORE](#)

[The Long, Strange Trip to Becoming Hurricane Barry](#)

July 16, 2019 - Weather Underground

By the time we're finished with Barry, it will have traced a fascinating loop from its birth as a disturbance in the Plains to its last breaths as a remnant in the Midwest in over 10 days' time.

[Read MORE](#)

[Adrift in a melting Arctic](#)

July 13, 2019 - The Week Magazine

What the scientists discover during their year in the frozen north will help them forecast the future of the entire planet.

Read MORE

