

New Zealand weather and climate news

Courtesy of MetService Library

MetService mentions

Camera on Auckland woman's Tesla captures lightning striking near friend's property

TVNZ

MetService recorded 1618 lightning strikes between 4.30am and 10.30am this morning in another active day of weather for those on the east coast of ...

Hawke's Bay weather: It'll be fine in Napier after heavy rain storm

New Zealand Herald

According to MetService's Hawke's Bay rural forecast, Thursday will open with cloudy periods, becoming fine with southwesterlies dying-out late in the ...

Crews to assess flood-hit Napier houses, with more rain forecast

Stuff.co.nz

MetService metrologist Dan Corrigan said the heavy rain watch lasts until 8pm Wednesday and there could be localised downpours of 25mm-35mm, ...

23 Napier properties significantly damaged and now 'uninhabitable' after floods

Stuff.co.nz

... damaged, with assessments continuing throughout the day, Hawke's Bay area commander for Fire and Emergency New Zealand, Ken Cooper said.

State of emergency as two months' rain falls on Napier in one day

Stuff.co.nz

A Search and Rescue team from Palmerston North will help assess the ... Fire and Emergency New Zealand area manager Ken Cooper said it ...

A climate for change: Napier flooding just a taste of what's to come

Metservice communications meteorologist Lisa Murray said because warmer air could hold more water, these weather systems could pack more of a punch.

New \$2.8m weather radar closer

Otago Daily Times

MetService spokesman Brad Monaghan said the weather radar equipment was now in place at the Hindon site, about 20km northwest of Dunedin.

Up to 2000 lightning strikes hit the North Island in two days

Wild weather continues to lash the North Island, with about 2000 lightning strikes recorded in the past two days.

More extreme events predicted in Tairāwhiti as climate changes - report

Droughts, fires, floods, farmers facing more pests and diseases, livestock stressed by heatwaves and a tide which keeps creeping up against the coast.

MetOcean

Marine heat wave possible in Northland this summer - and may bring ex-tropical cyclone

Northland could experience a marine heatwave this summer, prompting a warning from a marine biologist that it has the potential to affect food supply for both sea organisms and humans in the long term.

NIWA

Anatomy of a deluge: What caused Napier's big downpour?

A moisture-packed plume that yesterday dumped 463 per cent of Napier's monthly rainfall over the city in just a few hours was a glance at extreme events New Zealand can expect under climate change.

WMO

Caribbean has record-breaking heat season

Posted:

A number of heat records were broken in the Caribbean in 2020. Notably, in September, Dominica, Grenada and Puerto Rico broke their national/territorial all-time high temperature records. On...

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

The Brisbane hailstorm: What damage has it caused?

Insurance Business Australia

One weather event that might not have attracted as many headlines, yet still has the potential ... The first weekend of November saw a hailstorm hit Brisbane with ferocity, leading the Insurance Council of Australia (ICA) to declare the ...

Thunderstorm asthma threat subsides as storm system moves across Victoria

The risk of thunderstorm asthma across western Victoria has subsided, health officials say, with a weather system combining storms and a high pollen count moving to central Victoria.

International news and research

New cyclone forecasts: why impacts should be the focus of hazardous weather warnings

November 12 marks the 50th anniversary of Cyclone Bhola, the deadliest weather event on modern record.

When this storm made landfall over Bangladesh, it coincided with a lunar high tide. The subsequent storm surge killed at least 300,000 people.

Winds of Change Finally Hitting Large Weather Supercomputers

The Next Platform

“GPUs and machine learning are essential to our survival,” says **ECMWF** lead. We so often become fixated on what the top ranked supercomputers do ...

Weather companies

Aurora Mobile Enters into Strategic Partnership with Moji Weather to Accelerate User and Platform ...

GlobeNewswire

In addition, Moji **Weather** also provides **weather** service solutions to government agencies and enterprises across a wide **range** of industries, including ...

Aviation

Fly Coral gets go-ahead in French Polynesia

The French Polynesian government has granted a licence to a new airline being set up in Wallis and Futuna

Business/Insurance

ICNZ and EQC offer advice and assistance to flood-affected customers

Insurance Business New Zealand

Severe weather in the North Island triggered flooding and landslips in Napier on Monday, November 09, prompting insurers to come to the aid of their ...

Insurers Support Customers Affected By Severe Weather

Scoop.co.nz

Insurers are supporting their customers following the severe weather that continues to track over the North Island, resulting in flooding and landslips in ...

Climate change / global warming

Climate explained: why do humans instinctively reject evidence contrary to their beliefs?

Why do humans instinctively reject evidence contrary to their beliefs? Do we understand why and how people change their mind about climate change? Is there anything we can do to engage people?

These are three very significant questions. They could be answered separately but, in the context of climate science, they make a powerful trilogy.

Communications/social media

Science communication is more important than ever. Here are 3 lessons from around the world on what makes it work

It's a challenging time to be a science communicator. The current pandemic, climate crisis, and concerns over new technologies from artificial intelligence to genetic modification by CRISPR demand public accountability, clear discussion and the ability to disagree in public.

Energy and Mining

What's happening with the UK power market?

Energy Live News - Energy Made Easy

Weather forecasts look to be particularly important this year, with a high chance of La Nina potentially bringing colder weather to key demand hubs in ...

Farming/horticulture/Aquaculture

Ambitious salmon farming plan hits drawbacks

Ambitious plans to turn the open ocean into a multi-billion dollar seafood farming industry are edging closer to reality with the government's recent release of guidelines. But one company leading the way is finding unexpected obstacles.

New Sealord CEO steadying the ship in 2020's choppy waters

Taking the helm of one of the Southern Hemisphere's largest fishing companies in the midst of 2020 could be deemed a perilous ride for the average corporate land lubber.

Lightning

Have you ever seen lightning in slow motion? These US experts explore a striking subject in the outback

For most, lightning is simply a phenomenal and destructive display of nature, but for two researchers it is a puzzle of behaviour — especially where it chooses to strike.

Water

Wet weather: Heavy downpours sees Auckland's dam levels rise

New Zealand Herald

A Watercare spokeswoman said Auckland's dam storage levels went up about 5 per cent in the last week – from 66 per cent to just over 71 per cent full ...

Scottish Water Regulator Advises Auckland, New Zealand On Water Asset Management Plan

OOSKA News

A review of Watercare by the Water Industry Commission for Scotland (WICS), has found it performs better than other water companies but needs to ...

Journal and articles online

Contribution of mean and eddy momentum processes to tropical cyclone intensification

Michael T. Montgomery, Gerard Kilroy, Roger K. Smith, Nina Črnivec

Pages: 3101-3117 | First Published: 28 May 2020

A high-resolution, three-dimensional, numerical simulation of a rapidly intensifying tropical cyclone is used to extend basic knowledge on the role of mean and eddy momentum transfer on the dynamics of the intensification process. Examination of terms in both the tangential and radial velocity tendency equations provides an improved quantitative understanding of the dynamics of the spin-up process within the inner-core boundary layer and eyewall regions of the system-scale vortex. The analysis provides a novel explanation for inflow jets sandwiching the upper-tropospheric outflow layer that are frequently found in numerical model simulations.

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

Henrike Wilms, Martina Bramberger, Andreas Dörnbrack

Pages: 3326-3346 | First Published: 19 June 2020

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.

Recent upgrades to the Met Office convective-scale ensemble: An hourly time-lagged 5-day ensemble

Aurore N. Porson, Joanne M. Carr, Susanna Hagelin, Rob Darvell, Rachel North, David Walters, Kenneth R. Mylne, Marion P. Mittermaier, Steve Willington, Bruce Macpherson

Pages: 3245-3265 | First Published: 04 June 2020

In this article, we introduce a new configuration of the Met Office convective-scale ensemble, based on hourly time-lagging and extending to 5 days, and compare the benefits of this new ensemble configuration against the previous operational non-lagged ensemble configuration.

Assimilating visible satellite images for convective-scale numerical weather prediction: A case-study

Leonhard Scheck, Martin Weissmann, Liselotte Bach

Pages: 3165-3186 | First Published: 07 June 2020

Generating synthetic satellite images for visible channels like the Meteosat image of Germany shown here was until recently computationally too expensive for operational data assimilation, but has now become feasible. Here we present first results of the assimilation of such images in a convective-scale data assimilation system based on a local ensemble transform Kalman filter in a near-operational set-up. The main results are that cloud cover is strongly improved and we also see a beneficial impact on precipitation forecasts.

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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.

Sentinel-6 Michael Freilich Is Ready to Head Into Space

SciTechDaily - November 8, 2020

The newest addition to a long line of ocean-monitoring satellites is ready to head into space.

[A68 iceberg on collision path with South Georgia](#)

BBC News - November 5, 2020

The world's biggest iceberg, known as A68a, is bearing down on the British Overseas Territory of South Georgia.

[NASA Watches Sea Level Rise from Space, and Its Centers' Windows](#)

NASA - November 5, 2020

The two-thirds of Earth covered by water may jeopardize up to two-thirds of NASA's infrastructure built within mere feet of sea level.

[Florida braces for flooding and possible tornadoes after Tropical Storm Eta makes landfall in the Keys](#)

CNN - November 9, 2020

The Florida coast is bracing for Tropical Storm Eta after it pummeled the Florida Keys with life-threatening storm surge and flooding.

[Study on the Rapid Intensification of Hurricane Michael](#)

WeatherNation - November 5, 2020

Hurricane Michael was the first category 5 storm to hit the U.S. since Hurricane Andrew in 1992, with the third lowest pressure ever recorded for a landfalling storm in the Atlantic Basin.

[U.S. endured record wildfires, historic hurricanes in October](#)

Phys.org - November 9, 2020

Extreme weather events took the spotlight again in October as the nation saw raging wildfires, record hurricane activity and record snowfall in some parts.

[Effective government saves lives in cyclones, other disasters](#)

ScienceDaily - November 4, 2020

Effective national and local governments are associated with fewer deaths from tropical cyclone disasters -- even in countries with similar levels of wealth and development.

'Gargantuan' hail struck Libya last week. It was nearly 7 inches across.

The Washington Post - November 4, 2020

In a place that barely sees 10 inches of rain per year, Libya, a largely desert country in North Africa, isn't exactly a hotspot for severe weather. But atmospheric scientists are investigating an episode of "gargantuan" hail that pummeled Libya's capital city last week, with individual hailstones nearly 7 inches in diameter.

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Weather Eye with John Maunder

www.sunlive.co.nz/blogs/15124-tauranga-october-average-afternoon-temperatures-19132020.html

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