

New Zealand weather and climate news

(MetService focus)

Thanks to MetService library for these clips

Hawke's Bay wakes to coldest morning of the year

New Zealand Herald

... of frost as temperatures dropped to -0.7 degrees Celsius in Napier and 0.6C for Hastings at 8am, MetService meteorologist Stephen Glassey said.

More sub-zero mornings on way

Otago Daily Times

MetService said five more days of a ridge covering the country means people can expect chilly or foggy mornings and bright sunny days extending to ...

Brrring on the weekend! Chilly weather to last to Sunday

New Zealand Herald

MetService meteorologist Tamara Vukfa said the icy temperatures were the result of longer nights throughout the winter months, with the chilliest time ...

Southern ski fields challenged by lack of snow

Newshub

"It's not until the third week of July that we see the westerly flow kick in," says MetService meteorologist Lisa Murray. "That's when it opens the door to ...

Weather: 'Heavy swells' to hit New Zealand

Newshub

"A very deep low pressure centre (926hPa) over the ocean near 69S has generated heavy swells," MetService meteorologist Andy Best says on ...

Thanks Australia - incoming ridge points to week-long stretch of calm weather for NZ

Stuff.co.nz

Goodbye rain, hello sunny skies and frosty mornings. A high pressure system rolling in from Australia looks set to deliver an extended period of clear ...

Think today was cold? Looking back on NZ's coldest day

Otago Daily Times

Another big snow year was 1930, when, according to weather historian Erick Brenstrum, writing in New Zealand Geographic, bad weather followed a ...

Icy start to day, especially in North Canterbury, central Otago

RNZ

MetService is also expecting frosts tomorrow with several centres, including Blenheim, Masterton and Taupō in the negatives this morning.

Brrrr, it's chilly this morning: Frost and fog bring warning to drivers

New Zealand Herald

For Auckland, MetService recorded a dip to 3C overnight - one of the region's coldest nights so far this year. Drivers are being warned to take extra ...

Goodbye 'McMansions', hello compact living: What life in New Zealand could be like in 2039

In 20 years where will we live? And what will we be living in? Brittney Deguara looks at what life could be like.

Life as we know it will change.

Problematic rentals, sprawling family homes, overpopulated cities, and inefficient public transport might be left behind.

MetOcean

New study maps how ocean currents connect the world's fisheries

It's a small world after all -- especially when it comes to marine fisheries, with a new study revealing they form a single network, with over \$10 billion worth of fish each year being caught in a country other than the one in which it spawned.

Māori as oceanographers - Funding secured for cross-cultural ocean knowledge network

The Mātangaireira Waka Trust, has secured \$100,000 to strengthen capacity amongst Māori to help improve ocean health through the sharing of cross-cultural ocean knowledge. The Trust was one of 31 successful applications to the Te Pūnaha Hihiko: Vision Mātauranga Capability Fund, administered by the Ministry of Business, Innovation and Employment.

ECMWF

The ECMWF operational ensemble reanalysis–analysis system for ocean and sea ice: a description of the system and assessment by Hao Zuo, Magdalena Alonso Balmaseda, Steffen Tietsche, Kristian Mogensen, and Michael Mayer <https://www.ocean-sci.net/15/779/2019/>

Short Summary: OCEAN5 is the fifth generation of the ocean and sea-ice analysis system at ECMWF. It was used for production of historical ocean and sea-ice states from 1979 onwards and is also used for generating real-time ocean and sea-ice states responsible for initializing the operational ECMWF weather forecasting system. This is a valuable data set with broad applications. A description of the OCEAN5 system and an assessment of the historical data set have been documented in this reference paper.

WMO

Training Course on Aeronautical Meteorology for NMHSs of the Southwest Pacific Island States and Territories in Singapore

The Meteorological Service Singapore (MSS), in collaboration with the WMO, conducted the first run of the Training Course on Aeronautical Meteorology for National Meteorological and Hydrological...

This posting includes an audio/video/photo media file: [Download Now](#)

WMO signs agreement with World Ocean Council

The World Ocean Council (WOC) and the World Meteorological Organization (WMO) have signed a memorandum of understanding on “long-term cooperation in support of marine meteorological and oceanographic...

Sergej Zilitinkevich named as 2020 IMO Prize laureate

Sergej Zilitinkevich has been named as the winner of the prestigious International Meteorological Organization (IMO) Prize for his outstanding contribution to meteorology and climatology and...

Volcano alert

Airplane alert due to volcanic ash in the Kurils

NHK WORLD

Japan's weather officials are warning aircraft flying over northern Pacific areas to be careful of volcanic ash following an eruption of a volcano in the ...

White Island sulphur level 2nd highest since measurements began

The volcanic alert level of Whakaari White Island has been lifted to level two this evening, after moderate unrest.

5000 evacuated after PNG volcano erupts

More than 5000 people have been evacuated after Mt Ulawun in Papua New Guinea's West New Britain province erupted yesterday.

RUSSIA'S RAIKOKE Volcano Erupts...

WDRB (blog)

Several satellites—as well as astronauts on the International Space ... the stratosphere typically have the greatest effects on aviation and climate.

Extreme weather (and other news) – Antarctica and offshore

PM's chief science adviser urges 'overarching umbrella' for Antarctic science sector

Too many Antarctic science organisations are competing for attention, the prime minister's chief science adviser says.

New Iceberg Creeps Toward Open Ocean

The Weather Channel

New Iceberg Creeps Toward Open Ocean. weather.com. Satellites have monitored iceberg A-68's movement since it calved from the Larsen C ice ...

Extreme weather (and other news) – Australia and Pacific

Temperature rises will make Brisbane a 'difficult place to live' within 30 years, report finds

An alarming report has found temperature increases from climate change and urban growth will make Brisbane "a difficult place to live" within the next 30 years, and more people will be at risk of dying from extreme heat.

Weather data made specific to Australian crops and conditions

Queensland Country Life

The technology from IBM uses data from The Weather Company with the aim of helping farmers become more productive, improve yield forecasting ...

Probability of El Nino in near term downgraded by Australian Meteorologists

AgriCensus

An El Nino generally brings drier weather to Australia and Southeast Asia, negatively impacting large palm plantations and wheat crops, while ...

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

Manila Water inks deal with weather data provider

BusinessWorld Online

MANILA Water Co., Inc. said it tapped Weather Solutions, Inc. as its exclusive ... Under the agreement, Weather Solutions will provide Manila Water with ... operations can leverage on advanced technologies that can make reporting ...

Meteorological Dept launches thunderbolt mascot to mark its 77th anniversary

ThaiVisa News

Meteorological Dept launches thunderbolt mascot to mark its 77th ... and to commemorate the originator of meteorological affairs in Thailand.

Urban Singapore's agritech role lies in SE Asia's 71m small farms

The Business Times

Firstly, Singapore as a home to corporate innovation labs; secondly, as a provider of early stage venture capital for technology development; and ...

Up to 26 storms forecast for Cambodia's rainy season, five or six to overflow Mekong ...

Eleven Myanmar

“Generally, the storms that take place in the South China Sea mostly occur from mid-August to mid-October. According to weather forecasts, from ...

Meteorologists recorded temperature record Asian

www.MICEtimes.asia (press release)

Experts of the world meteorological organization confirmed that recorded in 2016 in Kuwait is 53.9 degrees Celsius occupy the first place in Asia in the ...

NiMet Regional Training Centre Gets WMO Accreditation

Leadership Newspaper (press release) (blog)

The Regional Training Centre (RTC) of the Nigerian Meteorological Agency (NiMet) ... meteorology, agricultural, hydro, aeronautical and marine meteorology. ... Training in NiMet, formerly the Nigerian Department of Meteorological ...

Use official weather data: Met office

Times of Oman

Muscat: As the temperature continues to rise across the Sultanate, the Public Authority for Civil Aviation (PACA) is urging motorists to rely on official ...

India to overtake China as world's most populous country

While China deals with a sharply declining birth rate, India's population continues to boom. By 2027, that will see India crowned the most populous country on earth, according to a new United Nations report.

Extreme weather (and other news) – Americas and Europe

'Storms on Steroids': Severe Weather Warnings in 2019 Already Higher than All of 2018 for ...

NBC 10 Philadelphia

"Going back to mid-to-late July last year, all but two months have been above normal and those two below were pretty close," meteorologist Sarah ...

Targeted by tornadoes: Minnesota has had 1800 twisters since 1950; North Dakota, 1600

West Central Tribune

On a recent June day, Harlan Kirkeide stood near his business in Mentor, ... The public also is generally more aware of severe weather, thanks to ...

France Heatwave: Three People Dead Of Suspected Cold Water Shock Amid 40C Temperatures

Three people have died on beaches across the south of France amid a heatwave which has seen temperatures soar to at least 40C.

The so-called Saharan Bubble has been linked to the deaths, with one man in his 70s dying of suspected “thermic shock” after experiencing cardiac arrest in calm water.

Europe in grip of powerful heatwave

French authorities announced school closures and traffic restrictions as swathes of Europe continued to wither under a powerful heatwave.

The UK's big flooding problem is only going to get worse

Climate change is making extreme rainfall more common, while more homes are still being built on floodplains. The result? Even worse flooding in the future

Met Office reveals 'half a month's worth of rain' falls in Edinburgh in 3 hours

The Scotsman

Met Office forecaster Craig Snell said 44.4mm (1.8ins) of rain was collected at the Gogarbank weather station between 1pm and 4pm this afternoon.

International news and research

MeteoSwiss to Improve Weather Forecasting with Cray CS-Storm Supercomputer

insideHPC

MeteoSwiss to Improve Weather Forecasting with Cray CS-Storm ... us to develop advanced, data-intensive modeling methods and techniques.

Baron Announces New Weather Forecasting Model

AVweb

In addition, Baron's new model also features more weather products than the old model – including over 25 different weather data parameters.

Why Weather Forecasting Keeps Getting Better

The New Yorker

At four-fifteen on the morning of June 4, 1944, Group Captain James Martin Stagg, a meteorologist for the British military, arrived at the library of a ...

Party City is not alone, meteorologists also struggle with the ongoing helium shortage

AccuWeather.com

The shortage in available helium is affecting others as well, including meteorologists who use weather balloons to collect important weather data.

Clouds dominate uncertainties in predicting future Greenland melt

New research suggests that the representation of clouds in climate models is as, or more, important than the amount of greenhouse gas emissions when it comes to projecting future Greenland ice sheet melt.

New evidence on the reliability of climate modeling

For decades, scientists studying a key climate phenomenon have been grappling with contradictory data that have threatened to undermine confidence in the reliability of climate models overall. A new study settles that debate with regard to the Hadley cell, a tropical atmospheric circulation widely studied by climate scientists because it controls precipitation in the subtropics and also creates a region called the intertropical convergence zone, producing a band of major, highly-precipitative storms.

How trees affect the weather

New research find that some plants and trees are prolific spendthrifts in drought conditions -- 'spending' precious soil water to cool themselves and, in the process, making droughts more intense.

Conceptual model can explain how thunderstorm clouds bunch together

Understanding how the weather and climate change is one of the most important challenges in science today. A new theoretical study presents a new mechanism for the self-aggregation of storm clouds, a phenomenon, by which storm clouds bunch together in dense clusters. The researcher used methods from complexity science, and applied them to formerly established research in meteorology on the behavior of thunderstorm clouds.

'An impressive storm': Researchers find the 'mother ship' in Nebraska

Omaha World-Herald

Often called a “mother ship,” it was an example of a supercell, which spawns the ... Volatile weather this year has proved a bonanza for storm-chasing ...

Aviation

Aviation leader to the CAA: 'Let's focus on the issues that are killing people

An aviation group and pilots are worried that problems continue at the Civil Aviation Authority where there has been staff turnover 30 per cent higher than the state service average during the past year.

Etihad Installs SITAOnAir's EFB Weather Awareness Solution on 100+ Aircraft

ASIATravelTips.com

Etihad Airways has deployed SITAOnAir's EFB Weather Awareness Solution ... aava Resort & Spa in Khanom, Thailand - Interview with Kati Hakkinen, ...

World Meteorological Congress Showcases the Importance of Weather Intelligence in Aviation

Connected Aviation Today

Last week, the World Meteorological Organization (WMO)'s Eighteenth ... changes and trends in weather intelligence technologies and innovation.

Rocket Lab looks to hire another hundred staff in New Zealand

New Zealand Herald

"We need another hundred staff here in New Zealand and more in the United States," Rocket Lab founder and CEO Peter Beck says. His company has ...

Business/Insurance

Hot weather spells windfall for AC repair shops in the UAE

Gulf News

AC maintenance companies said they have seen a 150 per cent increase in demand over the past few days even as residents battle hot and humid ...

Extreme Weather & the Domestic Supply Chain

EBN

Increasingly intense weather (and an increasingly intense conversation around ... In the lead-up to a hurricane, ports are bombarded with intense rain.

Lifelines for Better Development

Resilient infrastructure is about people. Particularly in developing countries, infrastructure disruptions are an everyday concern that affects people's well-being, economic prospects, and quality of life.

There is a significant economic opportunity from investing in resilient infrastructure: the overall net benefit of doing so in developing countries would be \$4.2 trillion over the lifetime of new infrastructure.

For infrastructure investors, governments, development banks and the private sector the message is clear: rather than just spending more, also spend better

Communications/social media

Why the "chance of rain" forecast causes so much confusion

WQAD.com

We're in the business of communicating the weather and what works best isn't the way we've always done it. When a Meteorologist calls for "Pops," it ...

Energy and Mining

Woods defends 100% renewable power target

June 21 (BusinessDesk) - The government is defending its 100 percent renewable electricity target against criticism that it risks distracting efforts from cheaper and larger emission reduction efforts elsewhere.

Wild Weather Is Endangering World's Oldest Form of Clean Power

Bloomberg

Wild Weather Is Endangering World's Oldest Form of Clean Power be a viable business," said Tor Syverud, Aquila's head of hydropower investing.

Tailings dams failure risks range from high to extreme in audits by Australian mining giants

ABC Local

Risks relating to tailings dam failures across Australia, ranging from high to extreme, have been identified in self audits conducted by major mining ...

More energy needed to cope with climate change

A new study found that by mid-century climate change will increase the demand for energy globally, even with modest warming.

UK's offshore wind sector spurred by £100m initiative

A 10-year, £100m industry-funded programme has been launched today (24 June) to spur the growth of the UK's offshore wind sector and benefit UK businesses.

Study forecasts even with modest warming, global energy demand to increase by mid-century

Green Car Congress (blog)

Whether future warming will cause the demand for energy to increase or ... Global warming & extreme hot weather is already creating pressure on ...

Government (regional and national)

Public Services to receive biggest change in 30 years

The Public Service sector is set to receive its biggest change in 30 years, in an attempt to better unify government agencies to solve problems.

Health

Climate change, climate action, and links to public health in New Zealand

The urgency around climate change, and the drive to stop the warming as soon as possible, has become much more visible recently.

The urgency around climate change, and the drive to stop the warming as soon as possible, has become much more visible recently. This talk will survey the science of what's happening and what we have to do to meet the Paris Agreement goals. It will also touch on some of the public health issues associated with a changing climate.

Professor James Renwick has 40 years' experience in weather and climate research, especially large-scale climate variability and climate change, including impacts on New Zealand and the Antarctic. He has been a Lead Author for several rounds of the Intergovernmental Panel on Climate Change (IPCC) Assessment Reports and is actively involved in communication activities.

A link to this presentation can be found here:

<https://www.youtube.com/watch?v=XNhAlNY4yxk&feature=youtu.be>

History

The Arctic during World War II: Three polar stations bring victory closer

Arctic.ru (press release)

The Soviet people waged a fierce battle against the Nazi invaders in the air, on land and at sea. Ordinary Soviet citizens working as meteorologists at ...

Lightning

Researchers connect lightning with gamma-ray phenomena in clouds

University of Tokyo graduate student Yuuki Wada with colleagues from Japan have discovered a connection between lightning strikes and two kinds of gamma-ray phenomena in thunderclouds. The research suggests that in certain conditions, weak gamma-ray glows from thunderclouds may precede lightning bolts and their accompanying gamma-ray flashes.

Lightning protection system ensures Naia terminals' safety

Business Mirror

“The Ninoy Aquino International Airport has 20 lightning arresters upgraded in 2016 to ... Apart from the Naia, lightning alert levels are also imposed in different territories, such as Hong Kong, Australia and Brunei, among others.

Satellites and radar

China offers customised weather satellite services to BRI countries

Telegraph.co.uk

22 countries want to install the application software platforms of China's Fengyun satellites for weather forecasting, as well as climate and environment ...

Inside the Room Where They Control the Weather Satellites

WIRED

New American weather satellites have been prone to delays, mishaps, and ... For a journalist eager to see up close how weather satellites work, and ...

SpaceX rocket to carry satellites that will improve Australia's weather forecasting

ABC News

"Once the satellites complete their kind of in-orbit check-out period the data will start flowing into our real-time operational systems and we will be ...

Transport/roading/shipping/freight

Impacts Of Weather On The Transportation Of Goods And Packages

Forbes

Weather patterns all over the world can cause ripple effects in the way objects are transported between and within countries, and the amount of time it ...

New road safety strategy to focus on reducing deaths and injuries

A new road safety strategy called Vision Zero which begins next year will focus on reducing deaths and injuries, rather than the number of crashes.

Lost at sea: At least 18 Singaporeans have died in regional waters since 2007

The Straits Times

He warned that Sumatra squalls will also bring strong winds from the Strait of Malacca to the South China Sea. "The swells may hit boats from the side, ...

The Government plans to pump money into developing coastal shipping facilities

New Zealand Herald

Although details are still sparse at this stage, Transport Minister Phil Twyford said this morning a funding announcement would be made before next ...

Why 'Planes, Trains And Automobiles' Are Chasing Big Data

Forbes

Google Earth is a great example of how big data can be used to inform businesses about weather changes. The National Ecological Observatory ...

Space weather

Northern lights' 'social networking' reveals true scale of magnetic storms

Magnetic disturbances caused by phenomena like the northern lights can be tracked by a 'social network' of ground-based instruments, according to a new study.

Climate change / global warming / sea level rise

How climate change impacts the economy

Phys.Org

Warmer temperatures, sea level rise and extreme weather will damage ... The demand for energy will increase as power generation becomes less ...

Do ice cores help to unravel the clouds of climate history?

For the first time, an international research team has investigated atmospheric ice nucleating particles (INPs) in ice cores, which can provide insights on the type of cloud cover in the Arctic over the last 500 years. These INPs play an important role in the formation of ice in clouds and thus have a major influence on the climate.

New research shows an iceless Greenland may be in our future

New research shows that Greenland may be ice-free by the year 3000. This research uses new data on the landscape under the ice to make breakthroughs in modeling the island's future. The findings show if greenhouse gas concentrations remain on their current path, the melting ice from Greenland alone could contribute as much as 24 feet to global sea level rise by the time it disappears.

Melting of Himalayan glaciers has doubled in recent years

A newly comprehensive study shows that melting of Himalayan glaciers caused by rising temperatures has accelerated dramatically since the start of the 21st century.

Journal and articles online

Application of the Warn-on-Forecast system for flash-flood-producing heavy convective rainfall events

Nusrat Yussouf, Kent H. Knopfmeier

Version of Record online: 20 June 2019

The NOAA National Severe Storm Laboratory's Warn-on-Forecast (WoF) project is developing a storm-scale ensemble data assimilation and prediction system to provide short-term probabilistic forecasts of high-impact weather. WoF probabilistic guidance will enhance the ability of operational forecasters to provide the public with more accurate and longer warning lead times for severe thunderstorms, heavy rainfall, flash floods, tornadoes, and other hazardous weather. This study explores the application of an experimental WoF system in 0–6-hr probabilistic forecasts of flash-flood-producing heavy rainfall events.

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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.

June 25, 2019

News

[Historic SpaceX launch creates never-before-seen nighttime spectacle](#)

June 25, 2019 - AccuWeather.com

SpaceX's third-ever Falcon Heavy rocket launched early Tuesday from Florida, carrying 24 satellites in a complex government mission from Kennedy Space Center.

[Read MORE](#)

[Inside the Room Where They Control the Weather Satellites](#)

June 25, 2019 - Wired

The best, most global data comes from satellites. But not all weather satellites are equal.

[Read MORE](#)

[Some trees can make droughts worse](#)

June 24, 2019 - Popular Science

A growing body of research suggests that trees help shape regional weather patterns.

[Read MORE](#)

[WPAFB Weather Flight offers a meteorological view on tornado outbreak](#)

June 23, 2019 - Dayton Daily News

As sirens signaled Airmen's families out of bed and sent night-shifters off their posts ahead of a half-mile-wide, EF-3 twister on May 27, the 88th Operations Support Squadron's Weather Flight stayed in their office seats, eying two ruthless splotches – storm cells – inch across their monitors.

[Read MORE](#)

Party City is not alone, meteorologists also struggle with the ongoing helium shortage

June 21, 2019 - AccuWeather.com

Helium is the second-most abundant element in the universe, but some contractors are struggling to capture this finite resource.

[Read MORE](#)

Meteorologists discuss how to warn the public about extreme weather

June 19, 2019 - Columbia Journalism Review

When it comes to weather, there is no universal understanding of cautionary language, and no single standard for alerting TV viewers—a fact that should raise more concern than it does.

[Read MORE](#)

Impacts of Weather on the Transportation of Goods and Packages

June 25, 2019 - Forbes

Weather patterns all over the world can cause ripple effects in the way objects are transported between and within countries, and the amount of time it takes to transport the goods and parcels.

[Read MORE](#)

Its Not a Coincidence that Many Meteorologists, Especially Those on TV, Are Wearing Stripes Today

June 25, 2019 - The Weather Channel

Launched in 2018, this growing campaign builds on a set of imagery developed by University of Reading climate scientist Ed Hawkins: colored stripes that portray a century-plus of global warming at a single glance.

[Read MORE](#)

Colorado Got Almost 2 Feet of Snow on the First Day of Summer

June 25, 2019 - CNN

Summer solstice, you say? Nearly July? Judging from the almost 2 feet of snow in Colorado, Mother Nature doesn't seem to care.

[Read MORE](#)

Virtual reality helps scare residents to flee looming storms, research says

June 21, 2019 - Reuters US News

Virtual reality simulations work better than traditional alerts in motivating people to evacuate ahead of hurricanes, research said on Friday, part of efforts to improve alert methods as the risk of extreme weather increases.

[Read MORE](#)

Do ice cores help to unravel the clouds of climate history?

June 20, 2019 - EurekAlert!

For the first time, an international research team led by the Leibniz Institute for Tropospheric Research (TROPOS) has investigated atmospheric ice nucleating particles (INPs) in ice cores, which can provide insights on the type of cloud cover in the Arctic over the last 500 years.

[Read MORE](#)

Inside the Everest expedition that built the world's highest weather station

June 20, 2019 - PressFrom

Climate scientists Baker Perry and Tom Matthews, along with a team of Sherpas, built an automatic weather station at the Balcony on Mount Everest.

[Read MORE](#)

Hurricane detectives comb archives for clues to storms past — and those to come

June 20, 2019 - The Post and Courier

As scientists work on putting together an accurate picture of how climate change will alter hurricanes and tropical storms, some researchers are going backward in time — but the data they find is no less valuable.

Read MORE

The Weatherman Who Could Save Your Life

June 21, 2019 - OZY

Today, he's recognized the world over as one of the faces of climate prediction in India — but not everyone agrees with his methods.

Read MORE

Conceptual model can explain how thunderstorm clouds bunch together

June 25, 2019 - EurekAlert!

A new theoretical study from associate professor, Jan Härter, at the Niels Bohr Institute, University of Copenhagen, presents a new mechanism for the self-aggregation of storm clouds, a phenomenon, by which storm clouds bunch together in dense clusters.

Read MORE

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My latest WeatherEye from John Maunder

<https://www.sunlive.co.nz/blogs/13472-tropospheric-temperatures-1979-to-may-2019.html>

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