

New Zealand weather and climate news

These clips come courtesy of MetService

MetService

Christchurch on track for gloomiest June on record, says MetService

Christchurch is tracking towards its gloomiest and darkest June on record, averaging less than one hour of sunshine per day so far this month.

<https://www.tvnz.co.nz/one-news/new-zealand/christchurch-track-gloomiest-june-record-says-metservice>

Tornado lifts Matamata boy George Jeffrey 2 metres into air

When George Jeffrey came face-to-face with a tornado, he didn't know what hit him.

The Matamata Intermediate School pupil was leaving school when he was caught in the twister that made an appearance throughout the Waikato town on Monday afternoon.

<https://www.stuff.co.nz/national/104825689/Tornado-lifts-Matamata-boy-George-Jeffrey-2-metres-into-air>

Frosty and foggy South on shortest day

The shortest day has brought another icy and foggy start for parts of the South, and below freezing temperatures mean take extra care on roads.

<https://www.odt.co.nz/regions/frosty-and-foggy-south-shortest-day>

Volcano alert

Civil Defence keeps closer eye on Mt Taranaki eruption risk

Mt Taranaki is "geologically-speaking due" and people need to be prepared for an eruption, the Taranaki Civil Defence says.

<http://www.radionz.co.nz/news/national/359980/civil-defence-keeps-closer-eye-on-mt-taranaki-eruption-risk>

MetOcean

Narrowing in on Southern Ocean eddies: Guest blog by NIWA staff writer Campbell Gardiner

A new modeling tool developed as part of the Deep South National Science Challenge is revealing fresh insights into Southern Ocean eddies and their influence on global climate.

<http://www.deepsouthchallenge.co.nz/news-updates/narrowing-southern-ocean-eddies-guest-blog-niwa-staff-writer-campbell-gardiner>

ABPmer Gives Free Access to Metocean Data and Statistics

ABPmer, a recognised authority in metocean data services, has recently launched its Global Data Explorer providing instant access to free metocean data and statistics. Using the data explorer enables users to discover the world's wind and wave climate, obtain free metocean analysis and download key metocean statistics.

<https://www.hydro-international.com/content/news/abpmer-gives-free-access-to-metocean-data-and-statistics>

Extreme weather (and other news) – Australia and Pacific

BOM declares a 50 per cent chance of El Nino this spring, possible dry and warm conditions ahead

Warm and dry — that has been the story of the season, and now there is a good chance that is set to continue for south-east Australia.

<http://www.abc.net.au/news/2018-06-20/bom-declares-a-50-per-cent-chance-of-el-nino-this-spring/9887644>

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

Frequent and hitherto unseasonal storms are going to be the new normal for India

As Sunita Narain points out, between 1980 and 2003, India saw nine convective storms that killed 640 people, and between 2003 and 2017, 22 such storms blew over India, killing 700.

<https://www.financialexpress.com/opinion/frequent-and-hitherto-unseasonal-storms-are-going-to-be-the-new-normal-for-india/1211292/>

Thunder storms alert: How extreme weather is costing India \$80 billion every year

India remains the fastest growing economy in the world, a poll by Reuters said recently. The finding also found mention in Union Finance Minister Arun Jaitley's latest blog, where he

lauded the 'phenomenal 7.7 per cent growth rate.' All this may be good news for Narendra Modi-led BJP government, but there's something that's slowly eroding the Indian economy and it has nothing to do with the government's policies.

<http://www.dnaindia.com/india/report-thunder-storms-alert-how-extreme-weather-is-costing-india-80-billion-every-year-2626982>

All you need to know about lightning strikes in India

It is a myth that lightning never strikes the same place twice. It is a thunderous killer which can strike any location more than once. Actually, over a long period of time, it is almost certain for lightning to revisit the same area and specially so in the tropics. Lightning causes loss of life, both human and animals and even has the potential to ignite fire. The buildings fitted with lightning arresters provide sufficient protection against direct lightning strike, but unguarded infrastructure and the living beings exposed in the open field become vulnerable to direct strike. - See more at: <https://www.skymetweather.com/content/weather-news-and-analysis/all-you-need-to-know-about-lightning-strikes-in-india/#sthash.DYBPqnbZ.dpuf>

International news and research

Something for the Comms team to consider - Beat dropping meteorologist drumming weather forecast

WFXG's meteorologist, Jay Jefferies, is quite the multi-tasker. He laid down a beat while laying out the forecast on Thursday. Jefferies has been challenging other meteorologists to show off their talents while doing the weather, and he's doing just that, leading the way

<http://www.rocketcitynow.com/news/beat-dropping-meteorologist-drumming-weather-forecast/1244024054>

Machine learning may be a game-changer for climate prediction

New research demonstrates that machine-learning techniques can be used to accurately represent clouds and their atmospheric heating and moistening, and better represent clouds in coarse resolution climate models, with the potential to narrow the range of climate prediction. This could be a major advance in accurate predictions of global warming in response to increased greenhouse gas concentrations that are essential for policy-makers (e.g. the Paris climate agreement).

<https://www.sciencedaily.com/releases/2018/06/180619173547.htm>

New model for gauging ice sheet movement may improve sea-level-rise predictions

Researchers discovered friction -- or 'basal drag' -- between ice sheets and the hard bed underneath has no influence on how fast glaciers flow.

<https://www.sciencedaily.com/releases/2018/06/180619122431.htm>

Ocean's heat cycle shows that atmospheric carbon may be headed elsewhere

A new study examined the global carbon cycle and suggests that scientists may have misgauged how carbon is distributed around the world, particularly between the northern and southern hemispheres. The results could change projections of how, when and where the currently massive levels of atmospheric carbon will result in environmental changes such as ocean acidification.

<https://www.sciencedaily.com/releases/2018/06/180619132843.htm>

James Roemer Announces Launch of New Platform for Forecasting Weather Risk, Hurricanes, and Commodity Price Trends: CLIMATECH®

SARASOTA, Fla.--(BUSINESS WIRE)--Commodity markets across the globe will be greatly affected by weather and crop conditions in the months ahead.

<https://www.businesswire.com/news/home/20180618005366/en/>

Reed Timmer captures incredible footage of rope tornado in Colorado

AccuWeather storm chaser Reed Timmer captured incredible footage of a rope tornado in Keensburg, Colorado on June 19.

<https://www.wzzm13.com/video/weather/accuweather/reed-timmer-captures-incredible-footage-of-rope-tornado-in-colorado/607-8165589>

WMO

Above average warmth, high impact weather continues

Global temperatures for the first five months of the year have been the highest on record for a La Niña year, according to the US National Oceanic and Atmospheric Administration. May 2018 was the fourth warmest May on record, the 42nd consecutive May and the 401st consecutive month above the 20th century average.

[Read more here](#)

Business development / commodities / infrastructure etc

AccuWeather restructures broadcast services division

AccuWeather has reorganized its broadcast solutions division, which includes its popular StoryTeller touchscreen and StormDirector+ weather software offering.

<http://www.newscaststudio.com/2018/06/20/accuweather-broadcast-solutions/>

Aviation

Weather pretty good for Saturday Rocket Lab launch at Mahia

Just days away from the first fully-commercial rocket launch from Mahia, weather conditions are "looking promising" for a Saturday launch.

https://www.nzherald.co.nz/business/news/article.cfm?c_id=3&objectid=12074472

Connected aircraft to save aviation industry \$15bn per year

LONDON — The connected aircraft, enabled by satellite communications, has the potential to save airlines \$15 billion annually in operational efficiencies and 21.3 million tons of CO2 emissions by 2035, according to first-of-its-kind research from the London School of Economics and Political Science (LSE) in association with Inmarsat, the world's leading provider of global, mobile satellite communications.

[http://saudigazette.com.sa/article/537245/BUSINESS/Connected-aircraft-to-save-aviation-industry-\\$15bn-per-year](http://saudigazette.com.sa/article/537245/BUSINESS/Connected-aircraft-to-save-aviation-industry-$15bn-per-year)

Transport/roading/shipping/freight

Shippers Council to partner NiMet on weather services for ships

However the council said it will only intervene when NiMet deliberately seeks support.

<https://www.dailytrust.com.ng/shippers-council-to-partner-nimet-on-weather-services-for-ships-257007.html>

Climate change / global warming / sea level rise

NZ's big climate question: do we cut all gases?

Experts have hailed New Zealand's ambitious new Zero Carbon Bill - but some question whether all types of greenhouse gas emissions should be slashed to nothing by 2050.

https://www.nzherald.co.nz/climate-change/news/article.cfm?c_id=26&objectid=12074549&ref=rss

Climate change minister James Shaw welcomes 'genuine' approach from Simon Bridges

Climate change minister James Shaw says he will consult National before taking proposals to cabinet to set up a Climate Change Commission and wants to involve them in the drafting of the law.

https://www.nzherald.co.nz/climate-change/news/article.cfm?c_id=26&objectid=12073046&ref=rss

Why National's climate U-turn is such a big deal — James Renwick

Climate change is not a partisan issue, and the need to take big steps to reduce emissions is urgent. So the opposition support for a Climate Change Commission is very welcome, writes climate scientist James Renwick on The Spinoff.

<https://www.sciencemediacentre.co.nz/2018/06/18/why-nationals-climate-u-turn-is-such-a-big-deal-james-renwick/>

Journals online

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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. Searchable archives are [available online](#).

Storm Tourism Is Booming Despite Quiet Tornado Alley

US News & World Report - 06/18/2018

a lifetime" to "the planet's most intense storms." From mid-April through July, storm chasers from across the Midwest and the world descend

NASA's Curiosity rover takes stunning selfie during massive dust storm on Mars

Fox News - 06/18/2018

so lucky, effectively going into sleep mode during the storm. "The storm is one of the most intense ever observed on the Red Planet," NASA

What Alabama Can Teach You about Storm Resilience

Next City - 06/18/2018

As climate change promises more frequent and intense hurricanes, alongside sharply rising recovery costs, the question has never been more

James Hansen Wishes He Wasn't So Right About Global Warming

US News & World Report - 06/18/2018

James Hansen wishes he was wrong. He wasn't. NASA's top climate scientist in 1988, Hansen warned the world on a record hot June day 30

Life in the fast lane: USU ecologist says dispersal ability linked to plants' life cycles

EurekAlert! - 06/17/2018

was supported by the National Science Foundation, the Centre for Ecology & Hydrology, the Australian Research Council and the U.K.'s Natural

Mars will come closer to Earth in the coming weeks than it has been in 15 years — here's how to see it

Markets Insider- Business Insider - 06/17/2018

and it takes up a quarter of Mars' surface area. "The storm is one of the most intense ever observed on the Red Planet," NASA said in a

'We just drove straight to the storm': CU Boulder flies drones in supercell storms

Boulder DailyCamera.com - 06/15/2018

University who plan to use the drone data to improve understanding and forecasting of tornadoes. "It's still very much an open question of:

This inflatable satellite could revolutionize disaster recovery

Metro - 06/15/2018

"It can work anywhere," Garzon said, and in a world where more intense storms might come more frequently — in New York City alone, experts

New method makes weather forecasts right as rain

EurekAlert! - 06/15/2018

and mesoscale model data," was published in the Journal of Hydrology. Funding was provided by the National Science Foundation (Award Numbers

To forecast winter rainfall in Los Angeles, look to New Zealand in the summer

EurekaAlert! - 06/15/2018

of NSF's Water, Sustainability and Climate Program, which funded the research, "Predicting drought in the Southwest U.S. is a critical issue

Why the Pine Island Glacier began to suddenly shrink

Earth.com - 06/15/2018

In 2015, a calving event abruptly shifted the edge of the ice shelf 20 kilometers toward the coast and greatly reduced the total area of the glacier's tongue.

Climate Change May Be Creating A Seafood Trade War Too

Forbes - 06/15/2018

One of the grand challenges that I find as a climate scientist is conveying to the public the "here and now" of climate change. For many

Air pollution has an understudied impact on public health

Salon.com - 06/15/2018

of the worst environmental disasters of the 20th century. Intense dust storms relentlessly pounded the southern Great Plains of the United

Large dust storms expected during 2018 monsoon

AZFamily.com - 06/15/2018

these epic dust storms one year and not another? Research among meteorologists has shown a connection between exceptional drought conditions

It's looking more likely we'll have another El Niño this season, weather service says

NBCNEWS.com - 06/15/2018

of tropical storm conditions away from the Atlantic Ocean, potentially reducing the number of storms this Atlantic hurricane season, which

Two-faced South Asian monsoons both propagate and purify pollution in the air

EurekAlert! - 06/14/2018

anticyclone, resulting from air rising in the monsoonal weather system, would carry air pollution emissions upward from South Asia. They

Charged cellphone vs. air conditioning: Survey asks which convenience you'd rather have after a hurricane

Sun Sentinel - 06/14/2018

the survey for the FAIR Foundation and the Get Ready, Florida! hurricane preparedness campaign. "People feel they'll get the best access to

How Much Daylight Will You Receive On The Summer Solstice?

Forbes - 06/14/2018

Sucking carbon out of the air won't solve climate change

Vox - 06/14/2018

But it might fill in a few key pieces of the clean energy puzzle.

UMass researchers to look at increased rain in the Arctic - The Boston Globe

The Boston Globe - 06/14/2018

When we think about global warming, our main concerns are often higher temperatures and rising sea levels, researchers say. But there's another impending threat in the Arctic region: dangerously high amounts of rain replacing the snow. In a three-year project funded by the National Science

South Asia seeks to improve flash flood early warnings

ReliefWeb - 06/14/2018

by the World Meteorological Organization, the U.S. National Weather Service, the Hydrologic Research Center, and the U.S. Agency for

Tornadoes Make Inaudible Sounds Before They Form, Detection Could Help with Storm Warnings

Newsweek - 06/14/2018

There was little proper warning issued for this severe weather and potential tornado, but new research on storm sounds could change this and

Antarctica's ice is melting 3 times faster than in 2007

The Seattle Times - 06/14/2018

has sometimes been a focus of attention for people who deny the science of global warming. "A lot of the argument has been made from

Assimilation of FY-3 data at the Met Office

Phys.org - 06/14/2018

Office has been working in collaboration with the China Meteorological Administration-National Satellite Meteorological Center (CMA-NSMC) to

Ocean waves following sea ice loss trigger Antarctic ice shelf collapse

ScienceDaily - 06/14/2018

Dr. Phil Reid, from the Australian Bureau of Meteorology, said the research identifies a previously under-appreciated link between sea ice

How will people move as climate changes?

Phys.org - 06/14/2018

coastal aquaculture is vulnerable to climate change, and this will probably have powerful nutritional and economic consequences. Nearly 60

Exclusive: Global warming set to exceed 1.5°C, slow growth - U.N. draft

Reuters US News - 06/14/2018

10 million fewer people in coastal areas to risks such as floods, storm surges or salt spray damaging crops. It says current government

When the river runs high

EurekaAlert! - 06/14/2018

at certain times into account would improve estimates of the consequences of global climate change on carbon cycling - given that the extent

Center offers help to deaf for hurricane season

Bay News 9 - 06/14/2018

a homeowner, one worry in Singh's mind this hurricane season is disaster preparedness. "For example evacuation zone announcements, the deaf

NASA encounters the perfect storm for science

Phys.org - 06/14/2018

global maps of the planet that track how storms evolve, not unlike weather satellites that track hurricanes here on Earth. NASA's two other

Extreme weather and natural disaster photos from around the world

Newsday - 06/13/2018

Okla., on May 10, 2017. Wednesday was the Center for Severe Weather Research group's third day in the field for the 2017 tornado season for

Hot, dry conditions help fuel fast-moving wildfires in the West

ABC7 Eyewitness News - 06/13/2018

which began as a hurricane, weakened to a tropical storm Wednesday morning, and continues to weaken. On Wednesday afternoon, the storm was

Seafloor cables that carry the world's internet traffic can also detect earthquakes

Science - 06/13/2018

Some 70% of Earth's surface is covered by water, and yet nearly all earthquake detectors are on land. Aside from some expensive battery-powered sensors dropped to the sea floor and later retrieved, and a few arrays of near-shore detectors connected to land, seismologists have no way of monitoring

Trapping carbon pollution underground for thousands of years is key to fighting climate change

Mashable - 06/13/2018

The storing of these emissions in the ground for thousands of years, or longer — a technology called Carbon Capture and Storage (CCS) — is a solution already employed in places like Norway's North Sea, but it has yet to be widely adopted.

Black Americans broke weather barriers during WWII, work still to go

The Press of Atlantic City - 06/13/2018

However, recent years have shown potential. The American Meteorological Society reports 1.9 percent of its members are black. The AMS, the

Rocks Under I-95 Present Odd, and Scary, Threat to Power Grid

Chron.com - 06/13/2018

take months to repair, according to Space Weather Prediction Center. Now Playing: New research suggests that solar prominences or solar '

Video by former state EMA director causing controversy over manufactured homes and severe weather

WMC Action News 5 - 06/13/2018

homes are safe in severe weather but some in the weather community say he doesn't have the research to back that up. "In some types of bad

Global warming cooks up 'a different world' over 3 decades

Colorado Springs Gazette - 06/18/2018

both growing coastal development and a span that included the most intense Atlantic storms on record. "The collective damage done by

Fairbanks, Alaska, Hits Coldest Temperature So Late in the Season in Almost 60 Years

Weather Underground - 06/13/2018

is on the way to close out the rest of the week. A winter storm warning has been issued by the NWS for the Brooks Range in northeast Alaska

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My latest Weather Eye by John Maunder *Seems a long time ago*

<https://www.sunlive.co.nz/blogs/12192-villach-1985-and-climate-change.html>

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Thanks to all our regular contributors

Bob McDavitt, Met Soc News Editor.