

## **Remember to put your clocks back!**

Daylight saving ends this Sunday, 4 April, which means the clocks go back by one hour at 3am. It's also a great time to check your smoke alarms are working and make sure you have updated supplies in your emergency kit. For more info about smoke alarms, head to the [Fire and Emergency NZ website](#). For info on how to prepare for an emergency, visit [WREMO's website](#).

## **New Zealand weather and climate news (MetService focus)**

### **Weather: Deluge soaks North Island with more rain possible overnight**

New Zealand Herald

**MetService** meteorologist Peter Little said the wet, unsettled weather is expected to get worse in a number of places tonight. The forecaster has issued ...

### **Weather: Severe thunderstorms, heavy rain forecast for much of the North Island**

Stuff.co.nz

**MetService** meteorologist Tahlia Crabtree said we've had a period of settled weather recently, but "this week is going to be a lot wetter". The stormy ...

### **Eyes on the skies: Wet weather in Taranaki due to clear for the weekend**

Stuff.co.nz

**MetService** meteorologist Ashlee Parkes said the region was in for a very wet five days, but it should clear by Friday afternoon. Currently, a heavy rain ...

### **Weather: Severe thunderstorms and wet weather set to continue**

A severe thunderstorm watch is in place for Taranaki as wild, wet weather continues to sweep the country.

### **Fire Service flooded with calls after deluge pounds Rotorua**

A sudden thunderstorm that hit Rotorua on Thursday night resulted in a flood of call-outs for firefighters in the city and nearby communities.

### **Thunderstorms rattle Wellington overnight, flooding reported amid wild weather**

MetService metrologist Dan Corrigan said the heaviest rainfall in the Wellington region was between 11pm and 12pm on Wednesday evening with 15 to 20mm falling over the hour.

### **'Mother nature's energy drink': Why NZ is getting soaked**

A week of wet, muggy weather is being delivered to much of New Zealand courtesy of a pulse of tropical moisture that one meteorologist has likened to "mother nature's energy drink".

### **Car stuck in flood water after heavy rain in Hamilton**

Stuff.co.nz

The car had to be towed and **Fire and Emergency New Zealand** also attended to assist the person. Stormy weather was predicted to bring periods of ...

### **Weather better by Easter, but sparkling autumn days in short supply during long weekend**

Stuff.co.nz

The **MetService** forecast for Thursday. This week's rain and gloom should be mostly gone by the Easter break, but sparkling autumn days could be ...

### **Easter Weekend: Extra busy traffic expected this weekend, summer weather forecast for some**

New Zealand Herald

**MetService** forecaster Sonja Cooper said Good Friday should start off relatively fine for the upper North Island, with a southerly change creeping up ...

### **NIWA**

### **Niwa used oil and gas money to research whales**

Should a government research organisation worried sick about climate change take money from petroleum companies to fund research into whales? It's complicated. Will Harvie reports.

### **WMO**

### **20th Typhoon Committee Attachment Training course at the RSMC Tokyo – Typhoon Center**

Posted:

The 20th ESCAP/WMO Typhoon Committee Attachment Training course was held online from 9 to 11 March 2021. The Regional Specialized Meteorological Centre (RSMC) Tokyo – Typhoon Center has run...

## **Early warnings protect lives on Africa's Lake Victoria**

Posted:

A successful four-year project in East Africa has demonstrated how improved weather, water and climate services save lives and livelihoods and support socio-economic development of vulnerable...

## **Development of Indian Submerged Tsunami Buoy System - CHATUR**

Posted:

National Institute of Ocean Technology, Ministry of Earth Sciences (MoES), Government of India, designed and tested submerged tsunami buoy system as an alternative to conventional DART surface...

## **African Ministerial Conference on Meteorology appoints new Bureau**

Posted:

The 5th African Ministerial Conference on Meteorology (AMCOMET-5) Session took place virtually on 17 March 202. It was preceded by the technical segment on 16 March. The Session elected its new...

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

### **Australia flood loss hits A\$438m, to drive higher reinsurance costs**

Artemis.bm

... the Insurance Council of Australia (ICA). The ICA's tally of claims filed due to the flooding and severe weather catastrophe across parts of New South ...

### **'Wilful ignorance': Flood-hit Australia urged to rethink climate adaptation**

As climate change impacts worsen, Australia's population is exposed to more severe floods, droughts and bushfires, while action to protect people and their homes lags

### **Seriously ugly: here's how Australia will look if the world heats by 3°C this century**

Imagine, for a moment, a different kind of Australia. One where bushfires on the catastrophic scale of Black Summer happen almost every year. One where 50°C days in Sydney and Melbourne are common. Where storms and flooding have violently reshaped our coastlines, and unique ecosystems have been damaged beyond recognition – including the Great Barrier Reef, which no longer exists.

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

### **Korea blanketed by powerful yellow dust storm**

An extraordinarily strong yellow dust storm originating from the inland deserts in northern China blanketed all of South Korea on Monday, prompting authorities to issue a yellow dust warning for Seoul and almost all parts of the country.

## **Extreme weather (and other news) – Americas and Europe**

### **Two tornadoes merged in Texas. Weather satellites show how it happened.**

One cannibalized another. Then it strengthened.

### **Peru updates US\$5.3bn reconstruction plan for regions hit by El Niño**

BNamericas English

Peru's reconstruction authority RCC has amended its investment plan for the regions that were affected by the devastating 2017 **El Niño** floods, which ...

## **International news and research**

### **Meteorology, Tides, And Big Ship Stuck In The Suez Canal**

Forbes

Like the rest of the world, I am paying attention to the large container ship stuck in the Suez Canal. It is a fascinating story at the intersection of our engineered society and nature. However, it is also more than that

### **Lindsey: American weather forecasting model becoming world's best**

Santa Maria Times

"This upgrade also establishes a strong foundation for further planned enhancements that will allow for the assimilation of even more **data** into the model ...

### **Probing wet fire smoke in clouds: Can water intensify Earth's warming?**

A new instrument that samples smoke from megafires and scans humidity will help researchers better understand the scale and long-term impact of fires -- specifically how far and high the

smoke will travel, when and where it will rain, and whether the wet smoke will warm the climate by absorbing sunlight.

### **Weather Service Internet systems are crumbling as key platforms are taxed and failing**

Washington Post

a flood at its **data** center in Silver Spring, Md., that has stripped access to key ocean buoy observations; and; multiple outages to NWS Chat, its program ...

### **Weather companies**

### **Grupo Climatempo and Somar Meteorologia merge to create the largest meteorology company in ...**

PR Newswire UK

Marcos Massari, CEO of Somar Meteorologia said, "The merger of Somar and Climatempo adds immense value to the market. We will gain **technical** ...

### **Climate change / global warming**

### **Japan's Kyoto cherry blossoms peak on earliest date in 1200 years, a sign of climate change**

During an exceptionally warm March in Japan, the cherry blossoms in Kyoto peaked on Friday, the earliest in more than 1200 years of records. The bloom fits into a long-term pattern towards earlier spring flowering, a compelling indicator of climate change, experts say.

### **Covid-19 / Business**

### **The Covid-19 reset: What now for business in the 'nice, kind, hermit kingdom'?**

For years, we've been taking ever-more desperate measures to put New Zealand on the map through everything from cringe-inducing American talk show appearances to endless *Hobbit* sequels.

In the end all it took was for us to shut ourselves off.

### **Covid-19 / Wellbeing**

### **Covid 19 coronavirus: Where are NZ's most vulnerable places?**

New Zealand's vulnerability to Covid-19 has been laid out in maps showing major cities - but also remote communities - among the most threatened spots.

In a just-published study, Dr Jesse Wiki and Canterbury University colleagues pulled together a mix of risk factors to get an unprecedented picture of our susceptibility.

## **El Nino / La Nina**

### **La Nina over as Pacific temperatures return to normal: BOM**

AgriCensus

BOM changed its ENSO (**El Nino**–Southern Oscillation) Outlook to inactive after being in La Nina since October, adding that normal conditions are ...

## **Health**

### **Flu vaccine roll-out set to start for over 65s, rest of NZ to wait longer than usual**

The country's influenza vaccine roll-out will begin in mid-April for those 65 and older, with record amounts of flu jab secured.

### **Ministry revises timeframe for this year's influenza immunisation rollout**

The Ministry of Health has revised the timeframe for this year's rollout of the influenza immunisation programme, due to begin in two weeks.

## **Innovation, Technologies and AI**

### **Google Maps wants to help users avoid getting stuck in the rain**

Fortune

The **weather** data will be provided by The **Weather** Company, the **weather** forecasting company **IBM** bought in 2016 in a deal reportedly worth \$2 ...

## **Water**

### **Jordan's worsening water crisis a warning for the world**

Posted: 29 Mar 2021 05:03 PM PDT

Prolonged and potentially destabilizing water shortages will become commonplace in Jordan by 2100, new research finds, unless the nation implements comprehensive reform, from fixing leaky pipes to desalinating seawater. Jordan's water crisis is emblematic of challenges looming around the world as a result of climate change and rapid population growth.

## Journal and articles online

### **Cutoff low over the southeastern Pacific Ocean: a case study**

Nelson Quispe-Gutiérrez, Vannia Aliaga-Nestares, Diego Rodríguez-Zimmermann, Martí Bonshoms, Raquel Loayza, Teresa García, José Mesia, Ricardo Duran and Sara Olivares

A cutoff low (COL) was identified over the southeastern Pacific Ocean at 30°S 90°W, which moved towards the northeast (close to Peru), favouring unusual rainfall on the central coast (Chosica 9.0°S, 77.8°W) with 37 mm over the span of 6 h (5 April 2012) compared to the monthly average of 0.9 mm. During the event, the humidity advection came from the Amazon basin and the northern coast. At the same time, trade winds from the southeast changed direction towards the northwest, influenced by the presence of the COL, favouring humidity and heat advection, which favoured convection. This event resulted in the loss of human lives, several injured people and infrastructure damage.

[Abstract](#) | [Full Text](#) | [PDF \(9 MB\)](#) Open Access Article

### **Severe convection-related winds in Australia and their associated environments**

Andrew Brown and Andrew Dowdy

Damaging winds related to severe thunderstorms are a dangerous hazard for people and infrastructure. Observations of these damaging wind events are relatively limited, which is not ideal for examining their average chance of occurrence for risk assessment applications. Here we analyse atmospheric environments related to thunderstorms that produce severe wind gusts, based on gridded data throughout Australia over many years. This is intended to help enable improved preparedness for severe winds and the damages they can cause.

[Abstract](#) | [Full Text](#) | [PDF \(923 KB\)](#) Open Access Article

### **Interdecadal modulation of the effect of ENSO on rainfall in the southwestern Pacific**

Tony Weir, Ravind Kumar and Arona Ngari

The Interdecadal Pacific Oscillation modulates the strong relationship between rainfall and the El Niño Southern Oscillation (ENSO, measured by the Southern Oscillation Index) in Australia. This paper analyses 100 years of observed rainfall to examine how this relation extends across the Pacific Islands. We find little modulation in Vanuatu, Fiji and (especially) Cook Islands, places where movement of the South Pacific Convergent Zone (driven by ENSO) has a direct influence on rainfall, which is not the case in Australia.

[Abstract](#) | [Full Text](#) | [PDF \(1.5 MB\)](#) Open Access Article

### **The Antarctic ozone hole during 2018 and 2019**

Andrew R. Klekociuk, Matthew B. Tully, Paul B. Krummel, Stuart I. Henderson, Dan Smale, Richard Querel, Sylvia Nichol, Simon P. Alexander, Paul J. Fraser and Gerald Nedoluha

The behaviour of the annual Antarctic ozone hole provides insights for monitoring the effectiveness of the Montreal Protocol and for understanding interactions between ozone depletion and climate. Here, the factors underlying the relatively large Antarctic ozone hole of 2018 and the much smaller hole in 2019 are examined. The difference in the severity of ozone depletion between the two years is ascribed to inter-annual variability in meteorological conditions.

[Abstract](#) | [Full Text](#) | [PDF \(7.4 MB\)](#) Open Access Article

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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.**

Joint International Climate Communiqué

RMetS - March 23, 2021

A global community of 43 national meteorological societies and organisations working on climate and sustainability have released a Joint International Climate Communiqué on World Meteorological Day 2021 (23 March).

Using AI to better understand natural hazards and disasters

ITU - March 24, 2021

As the realities of climate change take hold across the planet, the risks of natural hazards and disasters are becoming ever more familiar. Meteorologists, aiming to protect increasingly populous countries and communities, are tapping into artificial intelligence (AI) to get them the edge in early detection and disaster relief.

Deadly Alabama tornado 'supercell' spotted in satellite imagery

Space.com - March 26, 2021

Here's the view from the GOES East satellite.

World-leading CubeSat satellites launched

Phys.org - March 24, 2021

The M2 mission, a collaboration between UNSW Canberra Space and the Royal Australian Air Force (RAAF), brings together emerging technologies that deliver advanced capabilities in Earth observation, maritime surveillance, and satellite communications.

Hawai'i Is Officially the Best Place on Earth to See Rainbows, According to Science

Smithsonian Magazine - March 25, 2021

The islands' abundance of sunlight and water, combined with their geographical location, make rainbows a common occurrence on the islands.

Once-in-a-century UK wildfire threats could happen most years by end of century

ScienceDaily - March 24, 2021

Study shows extent to which likelihood of wildfire development in UK will increase under climate change.

Meteorology, Tides, And Big Ship Stuck In The Suez Canal

Forbes - March 28, 2021

As a scientist with an eye on Earth system science, it is interesting to see the varying roles that atmospheric and marine sciences are playing in the ordeal.

Two tornadoes merged in Texas. Weather satellites show how it happened.

The Washington Post - March 24, 2021

March 13 didn't feel like tornado weather in the Texas Panhandle — it was cool and foggy, with temperatures only in the 60s. But that didn't stop more than a dozen tornadoes, including some significant ones, from touching down amid a dynamic atmospheric setup.

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Weather Eye with John Maunder

see

[www.sunlive.co.nz/blogs/15493-world-meteorological-day-23-march-2021.html](http://www.sunlive.co.nz/blogs/15493-world-meteorological-day-23-march-2021.html)

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