

A note from the MetService Librarian

After 10+ years of bringing you the library panui covering the entire spectrum of weather this country can produce, it's only fitting the final bulletin compiles the media reporting of a polar blast.

Yes, gentle readers you read that right. The **final** bulletin. I am soon to depart the fifth floor and the wind rocked hillsides of Kelburn for the gentler climes of Boulcott St.

From now on you will need to be self sufficient in monitoring topics of interest and if, between now and my departure in a fortnight, you need some assistance setting up alerts for topics you monitor, or need some guidance on newsletters to subscribe to, please let me know and I'll point you in the right direction.

In those immortal words of Douglas Adams "So long and thanks for all the fish"  
L.

## **New Zealand weather and climate news**

### **Courtesy of MetService library for the last time**

#### **MetService mentions**

Polar blast: Lower North Island now under heavy snow watch, roads closed as snow falls in the  
...

New Zealand Herald

**MetService** has now updated its forecast with heavy snow forecast across main centres of the South Island and across the Cook Strait, from Wellington ...

#### **Wellington braces for more severe weather after capital escapes worst predictions overnight**

Damage to properties on Wellington's south coast has not been as severe as predicted after being battered by 6 metre swells and polar winds overnight, but swells are again expected to rise this morning.

#### **Weather: Antarctic polar blast sweeps New Zealand, huge waves hit Wellington coast**

\* Snow, heavy seas, freezing temperatures as polar blast sweeps north

\* State of emergency declared in Wellington with waves of up to 6.5m overnight

- \* High tide is due to hit affected bays on the capital's south coast at 9.22am
- \* Auckland endures one of coldest nights of years, temperatures plunge to 1C
- \* Desert Rd closed by snow, icy conditions across state highway network in South Island
- \* Cook Strait ferries, some flights cancelled

### Massive waves prompt warning for Wellington

Otago Daily Times

The country's coastline is at risk of enormous and dangerous swells, possible flooding and erosion, **MetService** said. This video by Conrad Conrad Vaka ...

### Snow touches down in Taranaki town for the first time in 10 years

Stuff.co.nz

The **MetService** said temperatures in the region were below five degrees Celsius this morning, but felt like -2. It's the first time snow has settled in the ...

### Weather warning: 41 hours of pounding waves heading for Wellington, temperature to drop to near ...

Stuff.co.nz

**MetService** has issued an explainer video of how big waves work. Wellington's emergency team is switching its focus from Covid to the towering waves ...

### Snow trouble for some but welcomed by skifields

Otago Daily Times

Despite the worst of the weather having passed, the **MetService** is urging motorists to be cautious of icy conditions this morning. While the snow was ...

### Cold weather: Aucklanders endure 'one of the coldest nights of the year'

New Zealand Herald

**MetService** Meteorologist, Mmathapelo Makgabutlane said Aucklanders can expect a chilly morning with temperatures having dropped into the "low ...

### New Zealand shivers as polar blast forces temperatures below zero across the country

Newshub

**Metservice** forecaster Gerard Bellam told Newshub St Arnaud in Nelson Lakes took first prize for the coldest temperature, hitting -4.7C. Blenheim was ...

Thunderstorm snow risk for Banks Peninsula, Chch - **Metservice** says worst still to come for some

Otago Daily Times

**MetService** meteorologist April Clark it is beginning to ease in Otago and Southland but more adverse weather is still to come for much of the South ...

Weather warning: Wellington facing worst tidal storm in eight years, temperature to drop to near ...

Stuff.co.nz

**MetService** has issued an explainer video of how big waves work. Wellington could be in for the worst tidal storm in eight years, according to forecasts by ...

Desert Road and SH4 closed as polar blast lashes central North Island

New Zealand Herald

**Metservice** has issued a heavy snow watch for a chunk of the central North Island including Raetihi, Ohakune, Waiouru and Taihape. According to the ...

State highways closed due to black ice from Kohatu to Murchison, and Takaka

Stuff.co.nz

**MetService** Meteorologist April Clark said frosty conditions overnight led to the black ice, with St Arnaud dropping to -1.2 degrees, while Takaka Hill ...

Snow starting to fall on Hawke's Bay hills

New Zealand Herald

**MetService** expected snow down to 500 metres today, with a road snowfall warning issued for State Highway 5, the road between Napier and Taupō.

Inside the forecast room, where the big calls are a matter of life and death

The Spinoff

MetService head of **weather** communications **Lisa Murray** was, ironically, attending the National Emergency Management Conference at Te Papa in ...

Snowfall in Dunedin and an increased chance of snow at sea level in Christchurch

Stuff.co.nz

Check the MetService Severe Weather Warnings page to see how this might affect you. Snow has arrived in Dunedin and more could be on the way. A ...

Snow warning for Desert Road

New Zealand Herald

MetService says to expect 5cm-10cm of snow to settle on the road, mainly about southern parts of the road. Waka Kotahi NZTA has asked motorists to ...

Winter blast hits parts of Southland, Air NZ flights cancelled to and from Invercargill

Stuff.co.nz

MetService meteorologist Peter Little said the windy and wet weather conditions were because of a "strong southerly flow from Antarctica" which was ..

Weather: Snow starts falling as 'punch of cold air' from polar blast moves up country

Stuff.co.nz

MetService is warning of a chance of heavy snow above 200m in some areas of Southland, Central Otago and Fiordland, and in Clutha, through into ...

Highways closing, 'brutal' windchill on way

Otago Daily Times

MetService forecaster Gerard Bellam last night said an active cold front would "ooze up" the South Island from the Antarctic, bringing bitterly cold winds ..

Snow blast shuts off Dunedin

Strong winds and snow in the hill suburbs of Dunedin caused the closure of the Northern Motorway from Dunedin to Waitati last night, and conditions looked set to get worse before getting better.

Weather: Wellingtonians affected by past storms warned to prepare for polar blast, swells by staying with friends

People living on Wellington's south coast and the Wairarapa coast who have been affected by bad storms in the past are being advised to leave home ahead of Tuesday's expected polar blast.

Snow dump coming for Desert Road - motorists advised to think twice before setting out

Police have urged motorists planning to head through the central North Island over the next few days to consider if their trip is really necessary, following a series of severe weather warnings from MetService.

Wet weekends bending weather perception and set to continue

Stuff.co.nz

Rain for the month in the Nelson area has been just around the average, but **MetService** meteorologist Angus Hines said every weekend so far had at ...

Town in King Country plunges to -3.5C as Waikato wakes to icy morning

Stuff.co.nz

... was the coldest city in the country on Thursday morning, sitting at -2.8C, but feeling like -6C as people headed to work, according to **MetService**.

Firefighters aid contractors after roof uplifts in Levin winds

Firefighters have rushed to help a contractor after a roof lifted off a new building in Horowhenua.

Levin station officer Andy Collins and his firefighters were called to Tainui St just before 4pm after a contractor called for help when the roof of a new build lifted off a house on Monday.

**Auckland tornado: Why it happened, and why we weren't warned**

MetService meteorologist Lewis Ferris said while the conditions in which thunderstorms and tornadoes form can be forecast, "the ability to pinpoint when and where it will occur is not possible".

## Tornadoes hit too fast to predict - **meteorologist**

RNZ

NIWA **meteorologist** Richard Turner said predicting such events were challenging. "Our technology in terms of our numerical weather forecasts are ...

## Auckland tornado 'very significant' for New Zealand – **meteorologist**

TVNZ

The tornado which tore through parts of Auckland this morning was “very significant” for New Zealand, according to MetService **meteorologist** Peter ...

## **Rain brings much needed recharge to dry Wairarapa, Hawke's Bay soils**

The rain that caused havoc on the East Coast over the past few days has been a boon for the unusually dry soils in Wairarapa and Hawke’s Bay that have been sorely in need of a recharge.

## Urban **meteorologist**: Smart traffic lights another tool to help avoid emissions from idling vehicles

Newstalk ZB

Auckland University urban **meteorologist** Jennifer Salmond says this could be trialled here, alongside bus drivers being asked to cut their engines off ...

## **MetOcean (and oceanmet, marine weather etc)**

### **Operational High Resolution Hydrodynamic Forecast Model for Cook Strait**

MetOcean Solutions has recently operationalised a high-resolution hydrodynamic forecast model for the wider Cook Strait region and Marlborough Sounds, New Zealand. The Cook Strait region represents the main artery between the North and South Island, while the Marlborough Sounds is the hub of New Zealand aquaculture, with 2,153 ha of marine farms that product more than 50,000 tonnes (live weight) per year of Kuku, or green-lipped mussels.

### Major Ocean-Observing **Satellite** Starts Providing Science Data

Jet Propulsion Laboratory

The difference in when the products become available balances accuracy with delivery timeliness for tasks like forecasting the **weather** and helping to ...

## New Ocean Data Flowing In

NASA

The map above shows sea surface height anomalies (3.5 centimeter ... It is one of two satellites in the Copernicus Sentinel-6/Jason-CS (Continuity of ... at the European Organisation for the Exploitation of Meteorological Satellites of ...

## **MetraWeather**

### Maynilad partners with MetraWeather for data analysis

BusinessWorld Online

**MAYNILAD Water** Services, Inc. has tapped international weather intelligence provider MetraWeather to improve its climate data analysis and ...

### Maynilad taps int'l firm to improve forecast and climate data analysis

Manila Bulletin

West Zone concessionaire **Maynilad Water** Services, Inc. (Maynilad) tapped the services of international weather intelligence provider MetraWeather ...

## **NIWA**

### Winter's bite increasingly toothless

Dunedin and Wanaka are among Otago hot spots in a mild start to winter seemingly set for the record books.

An expected short, sharp shock of cold weather early next week would take some heat out of June, Niwa meteorologist Ben Noll said, but it was expected to be the warmest June in New Zealand's records.

### What makes Wellington a 'top contender' for the windiest city in New Zealand and the world?

The capital's nickname, Windy Welly, really encapsulates its most recognisable quality.

“It's frequently windy in Wellington,” said NIWA forecaster Tristan Meyers.

### Polar blast: The science behind NZ's deep freeze

It's a bit chilly out there, right?

New Zealand is in the grip of a polar blast, delivered straight from the Antarctic ice shelf, that's brought snow to low levels across the country, closed highways, and grounded flights.

But, rather than being any rare phenomenon, a Niwa meteorologist says this system is just what a traditional New Zealand winter should feel like from time-to-time.

## **WMO**

### **WMO Executive Council endorses unified data policy**

Posted:

Free exchange of Earth system data vital to strengthen observing system and meet increased demand for services in era of climate change GENEVA, 24 June 2021 - In a milestone decision, the World...

### **Climate Risk and Early Warning Systems mobilizes more funding**

Posted:

The Climate Risk and Early Warning Systems (CREWS) Initiative is mobilizing an additional US\$ 28 million to deliver early warning systems in Least Developed Countries (LDCs) and small island...

### **Drought report calls for new management approach**

Posted:

Drought has directly affected 1.5 billion people so far this century, more than any other slow-onset disaster. This number will grow dramatically because of climate change, environmental degradation...

### **Executive Council approves hydrology action plan**

Posted:

The WMO Vision and Strategy for Hydrology and its associated Action Plan has been endorsed by Executive Council, reflecting the need to improve water monitoring and management in the face of growing...

### **Warming stripes show that climate change is here and now**

Posted:



Broadcast meteorologists and climate scientists are uniting on June 21 – the Summer/Winter Solstice – for Show Your Stripes day to raise awareness of the urgent need to act on climate change. UN...

### **Arctic PASSION seeks to improve observing systems**

Posted:

WMO's Global Cryosphere Watch community is supporting a new international project to strengthen observing systems in the Arctic in the face of rapid climate and environmental change. The European...

### **June ends with exceptional heat**

Posted:

An exceptional and dangerous heatwave is baking the Northwestern USA and Western Canada in areas which are more synonymous with the cold. Temperatures are likely to reach as high as around 45.0°C by...

### **International Hydrographic Bureau turns 100**

Posted:

The International Hydrographic Bureau has marked its 100th anniversary, with speeches and activities celebrating a century of global collaboration. Hydrography is the branch of applied sciences...

### **MONITOR – an application supporting crisis management institutions - IMGW-PIB**

Posted:

Extreme weather phenomena take a rapid and often unpredictable course. Hazard information must therefore be accurate, fast, and legible. The Institute of Meteorology and Water Management – National...

### **Extreme weather (and other news) – Antarctica and offshore islands**

### **Ozone pollution has increased in Antarctica**

Posted: 16 Jun 2021 06:40 AM PDT

Ozone is a pollutant at ground level, but very high in the atmosphere's 'ozone layer,' it absorbs damaging ultraviolet radiation. Past studies have examined ozone levels in the Southern

Hemisphere, but little is known about levels of the molecule in Antarctica over long periods. Now, researchers have analyzed more than 25 years of Antarctic data, finding that concentrations near the ground arose from both natural and human-related sources

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

#### Between a rock and a hard place: A Fijian village stares down climate change

After two catastrophic cyclones in three years, the village of Drue faces a life-changing decision.

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

#### Earlier flood forecasting could help avoid disaster in Japan

Posted: 18 Jun 2021 10:40 AM PDT

Researchers have revealed that a newly developed forecasting system can accurately predict flood locations 32 hours in advance. Extreme rainfall events are occurring increasingly frequently; such accurate and timely flood warnings will help to minimize their impact by providing time for measures to protect people and property.

#### Nepal floods kill 17, leave 22 missing

StockNewsWorld

Normal public life is being disrupted by the catastrophic **weather**. ... This time some **meteorologists** from South **Asia** were warning Nepal in advance.

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

#### 'Jaw-dropping' forecast is warning sign of climate change's future impact in Washington, scientists ...

Seattle Times

Climate scientists and **meteorologists** say the forthcoming heat wave — which could persist into next week — is a manifestation of climate change and a ...

London weather warning: Intense lightning storms smash capital - **Met Office** alert

Daily Express

This comes as a reported tornado tore through Barking in London, demolishing a wall and ripping trees apart. The **Met Office** warns: “Slow-moving ...

**Met Office** launched 'extreme heat' warnings after record heatwave deaths in 2020

centralfifetimes.com

Dr Will Lang from the **Met Office** told a virtual Local Government Association (LGA) briefing that red and amber warnings can now be issued for areas ...

Europe may face warmest summer in 3 years – **Weather Company**

Montel

Europe may face warmest summer in 3 years – **Weather Company**. PowerWeather. 18 Jun 2021 01:56. Photo: Shutterstock.com. Julia Demirdag.

Four tornadoes confirmed to have hit Quebec in one day

Insurance Business Canada

In its **weather** summary released Friday, the agency identified the four tornadoes. The first was a storm that hit St-Valentin, Quebec with winds at 115 ...

Intense heat wave blisters US Northwest with record temperatures

CNBC

The National **Weather** Service forecast high temperatures climbing to more than 30 ... Sluggish **business** was another consideration, he added.

Pacific Northwest faces one of its most severe heat waves in history

The Washington Post

The **Weather Network**, a Canada-based weather news organization, cautioned the heat wave could produce “the warmest day in history for some ...

## **Five dead and hundreds injured after rare tornado rips through several towns and villages in Czech Republic**

Emergency workers and residents combed through wreckage in southern Czech Republic on Friday after a tornado ripped roofs off buildings and sent cars flying through the air, killing at least five people and injuring hundreds.

### **International news and research**

#### High stakes and high stress, forecasting tornadoes can take psychological toll

The Washington Post

Many meteorologists who live in tornado-prone parts of the country have had to issue warnings for their own neighborhoods or remain on the job while ...

#### Expanding Mesonet **Weather Network** To Focus On Soil Moisture

Yankton Daily Press

Temperature at a depth of 4 inches is measured in bare soil plot to the right of the station and is the standard for those managing conventional till .

#### Siberian Heat Wave Nearly Impossible Without Human Influence

EcoWatch

By Michael Allen. Last year was hot. NASA declared that it tied 2016 for the hottest year on record, and the **Met Office** of the United Kingdom said it ...

#### **New models predict fewer lightning-caused ignitions but bigger wildfires by mid century**

Posted: 16 Jun 2021 04:15 PM PDT

Human-caused wildfire ignitions in Central Oregon are expected to remain steady over the next four decades and lightning-caused ignitions are expected to decline, but the average size of a blaze from either cause is expected to rise, modeling suggests.

#### Producing better forecasts and saving lives: OU lands \$208 million to continue tornado research

Oklahoman.com

That way, **meteorologists** can issue warnings based on a forecast rather than ... from the research phase to being used operationally in **meteorology**.

### Comparing the Canadian and European Approaches to the Patentability of Computer-Implemented ...

Lexology

While the EPO continues to follow a “**technological** contribution” approach to ... However, if that same **weather forecasting** data is used to automatically ...

### UNIST signs cooperation MoU with National Institute of **Meteorological** Sciences

EurekAlert

... **Meteorological** Administration) and fine dust (Ministry of Environment) via the sharing of observational research of real-world data and **technologies** ..

### **Antarctic Circumpolar Current flows more rapidly in warm phases**

Posted: 24 Jun 2021 08:44 AM PDT

Our planet's strongest ocean current, which circulates around Antarctica, plays a major role in determining the transport of heat, salt and nutrients in the ocean. An international research team led by the Alfred Wegener Institute has now evaluated sediment samples from the Drake Passage.

### **East Antarctic summer cooling trends caused by tropical rainfall clusters**

Posted: 23 Jun 2021 11:17 AM PDT

A study uncovers a new mechanism linking climate trend in Antarctica to rainfall occurrences in the tropics

### **More intense and frequent thunderstorms linked to global climate variability**

Posted: 22 Jun 2021 01:29 PM PDT

Large thunderstorms in the Southern Great Plains of the U.S. are some of the strongest on Earth. In recent years, these storms have increased in frequency and intensity, and new research shows that these shifts are linked to climate variability.

**Weather companies**

NBC rolling out new graphics that lets peacock's true colors shine a bit

NewsCastStudio

The weather graphics at many NBC O&Os, including WMAQ, have been quietly updated over the past months to a look that better matches Look S. A .

## **Aviation**

Long-haul flights a 'maybe' by early 2022 - Air NZ boss

Kiwi travellers wanting to fly beyond Australia and the South Pacific may be in luck by early 2022.

Air New Zealand chief executive Greg Foran spoke to business leaders in Hamilton on Tuesday, prior to Wellington's covid scare, and gave his predictions on the shape of international travel over the next 12 months.

The **weather's** effects on commercial drones may hinder their widespread use

Tech Xplore

The **weather conditions** most likely to prevent drone use are precipitation ... for these applications is diminished if **weather** prevents them from **flying**.

**Rocket Lab** wins contract for Mars mission

New Zealand Herald

**Rocket Lab** has been awarded a contract to design and build two Photon spacecraft for a scientific mission to the Red Planet that could shed light on ...

Turbulence could have caused crash

Sudden turbulence may have contributed to the in-flight break-up of a Robinson helicopter near Queenstown in 2015, a crash investigator says.

The Detail: Aotearoa's space business is booming

Stuff.co.nz

Artists rendition of **Rocket Lab's** Proton spacecraft orbiting Mars. The Detail is a daily news podcast produced for RNZ by Newsroom and is published on .

## Rocket Lab set to launch world's first wooden satellite

New Zealand Herald

A **Rocket Lab** spokeswoman said the satellite 'WISA WOODSAT' would be designed and built on Finland, but will be launched from Mahia no earlier ...

## **Business/Insurance**

### Insurers receive over 300 claims after South Auckland tornado

Insurance Business New Zealand

Read more: ICNZ: Severe **weather** claims hit record high in 2020. “The images I've seen out at Wiri, I've never seen anything like that. It's just ...

### More than 300 **insurance** claims follow Saturday's Auckland tornado

Stuff.co.nz

“With further bad **weather** forecast, our priority has been to assess damage to broken windows and roofing, so people's homes can be secured as quickly ...

### Easier access to more **weather** data can drive **insurance** growth

PropertyCasualty360

**Weather** events exponentially increase their risk and, potentially, costs from losses. Crop **insurance** is one of the only ways for farmers to mitigate ...

### Extreme weather to push property insurance higher -Hippo CEO

Reuters

June 22 (Reuters) - Extreme weather events and shortage of labour and materials for repairs will push property insurance rates higher in the next .

### The link between data quality and sales productivity

If you want your business to better leverage its data to enhance sales productivity, Tunc Bolluk suggests three steps to take as a priority. [Read more.](#)

### Consumers still committed to shopping local

More than a year after the pandemic first hit our shores, Kiwi consumers are continuing to make a concentrated effort to shop at and support local businesses.

## **Climate change / global warming**

### **Call to decolonise climate adaptation research – Expert Reaction**

Expert Reactions | Published: 18 June 2021

Science has published a special issue on climate-induced relocation, including [an editorial](#) calling to decolonise research in the field to help Indigenous Peoples define their future in a climate-altered world.

### Study finds NZ sea levels have risen at nearly double the rate Govt data shows

A landmark study has found sea levels in New Zealand over the past few decades have risen at almost double the rate reported by the Ministry for the Environment.

### New climate science program to meet climate challenges

Climate science will need to continue to be at the heart of policy to mitigate and adapt to climate change, says the Met Office as it announces a new scientific programme.

### Warming stripes show over 100 years of climate change at a glance

Monday, June 21st 2021, 6:04 pm - A British climatologist who wanted to illustrate climate change in a clear and simple way created the “warming stripes.” The overly simplified visual representation went viral.

## **Communications/social media**

### **Work on new public broadcaster continuing at pace**

Work on a new public media organisation continues at pace, but the head of the governance group says it's not about "smashing" RNZ and TVNZ together.

### New public media entity not just about 'smashing' RNZ and TVNZ together

Work on a new public media entity continues at pace, but the head of the governance group says it's not about "smashing" RNZ and TVNZ together

### Four ways to incorporate LinkedIn into your marketing strategy

OPINION: A lot of businesses are looking for helpful ways to use LinkedIn in their marketing.



I contacted social media marketing expert Spencer X

## **Energy and Mining**

Businesses face six figure power bill increases

Otago Daily Times

Some Christchurch businesses are being hit by massive rises to their power bills as dry weather and a natural gas shortage wreak havoc in the ...

Global **power** grids pushed to breaking point by summer heat and rising **demand**

The Japan Times

The extreme **weather** — even before the onset of hurricane and typhoon seasons — highlights the real world impact of climate change. Higher ...

## **Farming/horticulture/Aquaculture**

**Fish efficiency research building block for '\$3 billion industry'**

Five years of research into fish feeding efficiency is just the start of cooperation between business and science to grow a billion-dollar industry, sector experts hope.

## **Fire**

The Importance of a Dedicated Wildfire **Weather Network**

Transmission & Distribution World

We look at how a dedicated wildfire **weather network** can increase grid resiliency with enhanced situational awareness and improve operational ...

## **Health**

Health co-benefits need to be adequately considered in the Climate Change Commission's final advice

The Climate Change Commission's final advice to the Government made incremental improvements by acknowledging a broader range of evidence on the health co-benefits of climate change mitigation actions.<sup>1</sup> However, its economic analyses fail to incorporate the economic value of these health co-benefits which could well result in net savings to society from responding to climate change.

## History

The John B. King was a Canadian ship that exploded when lightning struck

Yahoo News Canada

This Day In Weather History is a daily podcast by The **Weather Network** that features stories about people, communities, and events and how weather .

## Innovation, Technologies and AI

The Future Use of Artificial Intelligence in **Weather** Prediction

AZoRobotics

This has led to an increasing reliance on **machine learning** in Earth and environmental sciences — collectively known as Earth sciences, with significant ...

AI Offers More Advanced Warning of Ozone Air Quality Issues

Technology Networks

"Applying deep learning to air quality and **weather forecasting** is like searching for the holy grail, just like in the movies," said Choi, who is a big fan

**IBM** to launch AI tools to mitigate biased online advertising algorithms

Little Saigon Collective

Fairness should be a part of the plan as they rebuild it, he added. It is worth noting that the Watson Advertising unit of **IBM** distributes ads on The **Weather** ...

Predicting construction delays with smart technologies

MEED

Oracle Construction and Engineering Connect will discuss how data science, AI and analytics will lead the industry into the next era of construction excellence

### **Satellites and radar**

NOAA to replace GOES17 **satellite** ahead of schedule

SpaceNews

SAN FRANCISCO – The National Oceanic and Atmospheric Administration announced plans June 25 to move its geostationary **weather satellite** ..

### **Transport/roading/shipping/freight**

Wartsila, Weathernews bring advanced **weather forecasting** to ships

Ship Technology

With automated navigation and route planning functions through weather avoidance **technology**, vessel operators will be able to minimise risks. It will ...

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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.

Use of additional data improves regional weather forecasts

Phys.org - June 23, 2021

Several recent studies show that passive microwave (PMW) radiance observations from polar orbiting satellites are critical to input into both global and regional weather prediction models.

Tiny Satellites Could Help Warn of the Next Big Hurricane

WIRED - June 25, 2021

A constellation of nanosats could improve our understanding of the world's most dangerous storms.

Incredible before-and-after imagery shows impact of California wildfires and drought

CNN - June 24, 2021

Remarkable satellite images captured a year apart illustrate the severity of the California drought and the impact of the 2020 Bobcat Fire and Ranch 2 Fire in Los Angeles County.

It's 118 degrees in the Arctic, which sure seems bad

Mic - June 22, 2021

According to satellite images taken by the European Union, it appears that surface temperatures have reached 118 degrees in Siberia. Yes, that Siberia.

Fires Rage in Arizona

NASA Earth Observatory - June 21, 2021

Exceptional drought has gripped much of Arizona for months. In June 2021, a potent heat wave sent temperatures soaring above 115°F (46°C) on multiple days. Now extreme fires are raging throughout the state.

Water meters help scientists quantify river runoff

Phys.org - June 24, 2021

The study was published in the Bulletin of the American Meteorological Society and was based on data from an observational network of 'water meters' at mountain outlets in the Third Pole.

Atmospheric science is overwhelmingly white. Black scientists have ignited a change

Science Magazine - June 24, 2021

Nearly 90% of geoscience doctorate holders are white, and by Morris's count, there are no more than seven Black atmospheric scientists in tenured positions in the country's major academic departments.

A more sustainable human-nature relationship

EurekAlert! - June 28, 2021

Lehigh University engineer Y.C. Ethan Yang is part of a multidisciplinary team of researchers developing a climate risk modeling framework to improve resilience of power systems with support from an Alfred P. Sloan Foundation grant.

Researchers develop a model to better understand the forces that generate tsunamis

Phys.org - June 21, 2021

The word "tsunami" brings immediately to mind the havoc that can be wrought by these uniquely powerful waves.

Satellite images show extreme drought drying up California reservoirs

CNN - June 18, 2021

As extreme drought continues to choke the southwest, new satellite images are showing the significant effect it's having on California's reservoirs -- many have critically low water levels.

Climate coverage booms, but still pales compared to weather

Axios - June 22, 2021

Climate-focused news initiatives are pushing media outlets to devote more coverage to the way climate change impacts extreme weather events.

Our tornado warning system has come a long way, but it could be better

USA Today - June 16, 2021

The National Weather Service's goal is to provide a minimum of 13 minutes of average warning lead time. It's at about nine minutes now.

Bill, Once a Tropical Storm, Is Expected to Weaken Further

The New York Times - June 19, 2021

The weather system, the second named storm of the Atlantic hurricane season, was expected to dissipate on Wednesday.

As The West's 'Mega-Heat Wave' Peaks, Satellite Imagery Reveals Explosive Growth of Wildfires

Discover Magazine - June 17, 2021

Exacerbated by climate change, record-setting hot and dry conditions are smothering a vast area.

Siberian Heat Wave Nearly Impossible Without Human Influence

Eos - June 17, 2021

A new study finds that the exceptional temperatures seen in Siberia in the first half of 2020 would have been extremely unlikely without anthropogenic climate change.

High stakes and high stress, forecasting tornadoes can take psychological toll

The Washington Post - June 22, 2021

Tornadoes can have profound effects on meteorologists who issue warnings for them, especially when lives are lost.

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Weather Eye with John Maunder

<https://www.sunlive.co.nz/blogs/15745-tauranga-average-afternoon-temperatures-may-19132021.html>

<https://www.sunlive.co.nz/blogs/15766-building-cathedrals-of-europe-climate-factor-my-latest-weathereye.html>

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Thanks to our regular contributors.