

First, We ask all Met Society members to look up at the sky and observe two minutes of silence this **Friday** to remember the victims of last Friday's senseless crime against humanity in Christchurch.

See

<https://www.stuff.co.nz/national/christchurch-shooting/111469453/two-minutes-of-silence-for-shooting-victims-what-you-need-to-know>

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

*(MetService focus)*

### **Polar vortex helping forecasters predict New Zealand weather**

MetService meteorologist Georgina Griffiths said the good news this week was SAM was likely to remain mostly positive for the next couple of weeks. It was difficult to get a clear signal of Sam's intentions beyond that.

### **An indecisive weather front bringing rain across the central South Island**

MetService meteorologist Angus Hines said the reversing front situation was certainly "a bit unique".

### **Cyclones and other natural disasters hit hard in the Pacific**

Lisa Murray, Head of Weather Communication at Met Service says that until 1953, only female names were used by the US National Weather Service.

### **Muggy days to stick around for Rotorua**

New Zealand Herald

According to MetService meteorologist April Clark, the warm, moist air creating the muggy conditions is being brought down the North Island from the ...

### **Muggy nights in store for Tauranga**

New Zealand Herald

According to MetService meteorologist Andy Best, the moist air creating the muggy conditions is being brought down the North Island from the Pacific.

## *Others*

### **'Bone' cloud appears above Whangarei**

Newshub

A bizarre 'bone' cloud seen above Whangarei last weekend has meteorologists baffled. One photo, taken by Sharron Cleary at 5:30pm on Sunday ...

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

#### **Hanergy's Thin-film Solar Panels to Aid Meteorology Research in Antarctic**

APN News

The signing ceremony was held at Chinese Academy of Meteorological ... further down for a wider application of thin-film solar power technologies.

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

#### **Flash flooding kills 50 in Papuan capital**

As many as 50 people have died as a result of flash flooding in Papua.

The deaths have been recorded in Jayapura regency, near Indonesia's border with Papua New Guinea.

### **'Monster' El Nino a chance later this year, pointing to extended dry times**

The Sydney Morning Herald

They considered parallel years, such as 2014 when a near-El Nino was reached before conditions revived a year later, creating one of the three most ...

### **Vanished wet season of 1952 has eerie similarities to NT's current dry spell**

The Northern Territory's wet season, or lack thereof, may be one for the record books.

The Bureau of Meteorology believes Darwin could be on track for its driest wet season on record, measuring 890 millimetres of rainfall — just over half the average.

### **Heatwatch: increasing extreme heat in Townsville**

20 Mar 2019

Mark Ogge, Bill Browne, Travis Hughes

The Australia Institute

Increasing extreme heat will have profound impacts on people, industries and ecosystems in Townsville. CSIRO and Bureau of Meteorology projections estimate that the average number of days over 35 degrees each year could increase fivefold by 2030 and reach over one hundred days per year by 2090 without strong climate policies. Almost two hundred nights per year could to remain above 25 degrees by 2090, a level considered dangerous to human health.

**Death toll from Papua flooding rises, amid fears for children**

Indonesian officials say the death toll from flooding and landslides in Papua has risen to 89, while dozens of people remain missing.

**Australia: Tropical Cyclone Trevor forms, on track to target northern Queensland this week**

AccuWeather.com

Newly formed Tropical Cyclone Trevor is expected to take aim and bring dangers to the Cape York Peninsula in northern Queensland, Australia, this ...

**Cyclone Veronica forms off WA coast, with warning 'strong system' set to reach Pilbara**

A low-pressure system to the north of Western Australia has rapidly intensified into a category two cyclone, with a blue alert issued for a stretch of the Pilbara coast.

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

**Why is it raining so much in the UAE? Here's the answer**

Khaleej Times

The recent spate of downpours can be attributed to the success of cloud seeding, a process of enhancing the amount of precipitation in clouds and to ...

**Air Force participates in royal rainmaking operation**

ThaiVisa News

BANGKOK, 15 March 2019 (NNT) - The Air Force has sent cloud-seeding planes to participate in a royal rainmaking operation for 2019 to relieve the ...

**Never seen so much rain': Zimbabweans struggle with storm floods**

Death toll rises as cyclone Idai wrecks roads, bridges in Zimbabwe, leaving passengers stranded and villagers isolated.

### **Cyclone Idai: Mozambique survivors desperate for help**

Mozambique's port city of Beira is reeling from the damage inflicted by Cyclone Idai.

### **A new UAE rain study is focusing on fog**

Abu Dhabi World

An initiative led by a UAE Research Program for Rain Enhancement Science awardee will study local fog and clouds to potentially enhance rainfall in ...

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

#### **Canada's Earliest Heat Wave Ever Is Forecasted To Hit This Week**

MTL Blog (blog)

According to The Weather Network, Canada is set to see the earliest heat wave on record this week, with some provinces expected to see a couple ...

#### **Nebraska Flooding Seen from Space in Dramatic Detail**

A new series of before-and-after images shows the ongoing flooding in Nebraska in jaw-dropping detail.

The images, created by the European Union's Earth-observation program, Copernicus, show rivers turned to lakes and farms and towns underwater. The record flooding is the result of a "bomb cyclone" that struck the central U.S. last week. The term refers to a storm that forms outside of the tropics in which atmospheric pressure drops very rapidly.

### **International news and research**

#### **Rising CO2 Levels Could Wipe Out Stratocumulus Clouds, Accelerating Climate Change**

Stratocumulus clouds spread out like puffy cotton balls in orderly rows above the ocean in the sub-tropics. The low-hovering clouds provide the planet shade and help keep Earth cool. But in a new study published this week, researchers say that rising carbon dioxide levels in the atmosphere could wipe out these clouds. The discovery means that, under "business as usual" emissions scenarios, Earth could heat up 14 degrees Fahrenheit within a century.

#### **We're The Geeks Who Have Protected the Public From Weather Extremes For 100 Years**

Newsweek

In the 21st century, the societal impact of the meteorology community is vast, extending well beyond the daily “should I take my umbrella today?”

### **The 'Frozen Chosen': What's it like to live, work in the northernmost permanently inhabited place on Earth?**

Not many people could imagine braving a location situated in a climate so extreme that it is considered unsuitable for human habitation.

Once you factor in the snow that falls all year round, the 24 hours of darkness during frigid winter months and the mere 508-mile distance from the North Pole, it's no wonder that so few people live and work in the northernmost permanently inhabited settlement on Earth – Alert, located in the most northerly Canadian territory of Nunavut.

### **When does a winter storm become a bomb cyclone?**

The Conversation US

What, then, distinguishes a “bomb” from a run-of-the-mill cyclone? The term was coined by famed meteorologists Fred Sanders and John Gyakum in a ...

### **How Bomb Cyclones Are Changing The Way We Talk About Weather**

Texas Standard

“What I think has happened is that you have a lot of meteorologists that you see interacting on Twitter or different social media platforms, and now ...

### **How Analytics Is Ushering In A Smart Weather Forecasting Industry In India**

Analytics India Magazine

The data needed for weather forecasting is the data like barometric ... Himanshu Goyal of The Weather Company said at Cypher 2018, “After few ...

### **Meteorologists Are Among Female Scientists Wearing Purple On Pi Day. Here's Why?**

Forbes

NWA along with the American Meteorological Society (AMS) are critical actors in the U.S. weather enterprise. The NWA Twitter site explained ...

### **Top 10 weird weather and science words and phrases**

WKRG News 5

Polar Vortex is a real weather term that's been used by meteorologists for dozens of years, since way before the Internet. It's a band of very high wind ...

### **Leeds most common weather phrases revealed: Which do you use?**

Yorkshire Evening Post

The British Science Association has partnered with Operation Weather Rescue to tap into our passion for the weather with a citizen science project ...

### **The Trinity Tests: When Atomic Development Meant Betting Whether Earth Would Catch On Fire**

Newsweek

Teams of meteorologists were called in; smoke experiments were conducted; flocks of brightly-colored weather balloons were released and observed ...

### **Launching a weather balloon in a snow storm isn't glamorous**

The Weather Network

A hapless scientist struggled to launch a weather balloon in the middle of a blizzard sweeping through Rapid City, South Dakota Wednesday.

### **Why are cyclone paths so difficult to predict?**

Some cyclones seem to hurtle straight into the coast while others drunkenly stagger about, stalling, changing direction and even going back upon themselves.

### **National Weather Service offering free local weather spotter training classes**

Kearney Hub

Meteorologists who predict the weather use a variety of technologies to help make those forecasts. They also rely on a human aspect to fill in the ...

**WMO**

### **WMO supports Sustainable Climate Information Services**

As the recognition of the dependence between climate change and variability and human welfare grows, climate action continues gaining importance on the global development agenda

## **World Meteorological Day celebrates the Sun, the Earth and the Weather**

The Sun, the Earth and the Weather is the theme of this year's World Meteorological Day. It highlights the role of the Sun in delivering the energy that powers all life on Earth, and drives the...

### **Art**

#### **Art and climate roadshow tackles the big stuff**

"The arts can be a disrupter, successfully challenging incumbent values and ideas, including how we innovate technology and sustainable urban design as well as re-imagining the fundamental systems we base the way we make and consume things with disregard for planetary boundaries."

On a practical level that means taking to the road with climate scientists, Professors James Renwick and Dr Tim Naish, from Victoria University and then inviting local artists and educators to join a panel discussion.

### **Aviation**

#### **Space port 'could be feasible' in NZ in 10 years**

New Zealand is positioning itself to be a leader when it comes to space tourism.

Business Facts Today (blog)

According to this study, over the next five years the Aviation Weather Forecasting Services market will register a xx% CAGR in terms of revenue, the ...

### **Communications/social media**

#### **KTBS 3 unveils the Mega 3 Storm Team Jr. Weather Watchers Center at Sci-Port**

KTBS

The center is for all ages and place where children can interact by watching themselves live on TV with weather graphics, experience the tornado ...

### **Apps We Love: Weather Apps**

CPAPracticeAdvisor.com

We surveyed the CPA Practice Advisor community this month to find out which apps our friends use when they're trying to stay on top of the weather.

## **Energy and Mining**

### **\$9 million funding to enhance short term forecasting of wind and solar farms**

Mirage News

The portfolio of 11 projects will involve a range of weather forecasting technologies including onsite cloud cameras that can predict the timing and ...

### **Vestas team forecasts more precision in Australia**

reNEWS

Vestas and its wholly-owned energy analytics solution provider Utopus ... weather forecasts and meteorological data to deliver more accurate energy ... system stability by balancing the energy supply and demand in the market.

## **History**

### **150 Women in 150 Words 1918–1967 Edith Farkas**

Meteorologist (1921-1993)

A female pioneer in the largely male field of meteorology, Edith Farkas came to New Zealand as a Hungarian refugee after the Second World War. Her qualifications weren't recognised, and she had to return to university for a MSc in physics before she could begin work at the New Zealand Meteorological Service.<sup>1</sup>

<https://royalsociety.org.nz/150th-anniversary/150-women-in-150-words/1918-1967/edith-farkas/>

## **Satellites and radar**

### **Weather Radar will Fulfill Public Safety Missions**

i-HLS - Israel Homeland Security

The model combines, for the first time, two weather radar technologies – the one that reads data quickly and the one that reads data in great detail, ...

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

### **Weather's Biggest Blind Spot: Helios in Transportation**



Harris Geospatial Solutions

To resolve this weather blind spot, Helios creates a new foundational weather sensor network from CCTV traffic cameras to detect “road weather”.

### **France battling to contain six-mile fuel slick after cargo ship carrying 2000 cars sinks**

The Independent

The ship was carrying over 2,000 vehicles, 365 shipping containers, ..... metric tonnes of oil were spilled when a ship broke up in stormy weather.

### **An Analysis of MSC Zoe's Container Loss**

The Maritime Executive

The six hourly published Sea Surface weather charts from 31.12.2018 00:00 UTC to 02.1.2019 06:00 UTC from metoffice.gov.uk are available to me ...

### **Roads vs extreme weather: how to design more resilient roads**

Infrastructure Magazine

Roads vs extreme weather: how to design more resilient roads ... weather, and some of the new sustainable materials and technologies we can use.

### **Innovation and technologies (inc data and new products)**

### **Meteorological Agency starts development of AI-based system to predict windy events in Japan**

The Japan Times

The Meteorological Agency's research arm recently began developing an artificial intelligence-based system to predict high-wind events severe ...

### **5G cell service may come at price of weather safety in US**

The Weather Network

5G cell service may come at price of weather safety in U.S. .... that usage of those transmission frequencies will interfere with satellites' ability to track ...

### **Technology Reveal: How Does ClimaCell Predict the Weather More Accurately**

PRNewswire (press release)

ClimaCell's proprietary weather forecasting systems are being used by blue-chip companies, emerging technologies, and software developers alike.

Weather startup ClimaCell out to prove IoT can make forecasts accurate, save lives

Firstpost

All this data feeds into real-time weather forecasts that ClimaCell metes out to its customers — from airlines to rideshare launch companies like ...

### **Weather in pictures**

### **What the historic Midwest floods look like from space — and from the ground**

“This really is the most devastating flooding we’ve probably ever had in our state’s history,” Nebraska’s governor said.

Climate change / global warming / sea level rise

### **Climate change: Call to tackle future risk to Auckland's poorest communities now**

Community leaders want an early focus on protecting Auckland's poorer suburbs, which new reports show are the most vulnerable to climate change risks.

### **Extreme heat, disease and rising seas: how climate change threatens Auckland**

Aucklanders could be suffering an equivalent of three months of extra-hot days within only a century's time - with residents in southern and western suburbs likely to be hit the hardest.

### **Dramatic rainfall changes for key crops predicted even with reduced greenhouse gas emissions**

Posted: 11 Mar 2019 02:31 PM PDT

Even if humans radically reduce greenhouse gas emissions soon, important crop-growing regions of the world can expect changes to rainfall patterns by 2040. In fact, some regions are already experiencing new climatic regimes compared with just a generation ago. The study warns that up to 14 percent of land dedicated to wheat, maize, rice and soybean will be drier, while up to 31 percent will be wetter.

### **Cloud seeding / Geoengineering**

### **How does cloud seeding work?**

ABS-CBN News

As water shortage in the country worsens due to a prevailing dry spell, the agriculture chief has ordered regional offices to conduct cloud-seeding ...

### **Professional interest**

#### **Sea Level Rise & New Zealand's Future**

How much land will we lose to the rising ocean, and what will it cost us? Local Government New Zealand has recently released its report, *Vulnerable: The quantum of local government owned infrastructure exposed to sea level rise*, which quantifies the replacement value of local government infrastructure exposed to sea level rise. The study details the type, the quantity and the replacement value of infrastructure exposed with different levels of rise severity, from half a meter to three metres. How bad could it get? Very bad: more than \$14 billion of local government owned assets are exposed at a 3.0 metre increment of sea level rise.

LGNZ's report is intended to result in stakeholders working together to ensure the long-term resilience of critical infrastructure. At its core, this analysis is about turning a challenge into an opportunity. Study co-author Thomas Simonson will present these findings in detail at a lunch time lecture, and take questions from the audience.

When: Thursday April 18th 12:30pm – 1:30pm  
Where: Rutherford House lecture theatre 2 (RHLT2)

### **Journal and articles online**

#### **Meteorological Applications**

##### Accepted Articles

Accepted, unedited articles published online and citable. The final edited and typeset Version of Record will appear in the future.

##### Spatial Distribution of Secular Trends in Rainfall Indices of Peninsular Malaysia in the Presence of Long-Term Persistence

Najeebullah Khan, Sahar Hadi Pour, Shamsuddin Shahid, Tarmizi Ismail, Kamal Ahmed, Eun-Sung Chung, Nadeem Nawaz, Xiao-Jun Wang

First Published: 14 March 2019

##### Observed changes in climate extremes in Nigeria

Imoleayo E. Gbode, Oluwafemi E. Adeyeri, Kaah P. Menang, Joseph D. K. Intsiful, Vincent O. Ajayi, Jerome A. Omotosho, Akintomide A. Akinsanola

First Published: 12 March 2019

## **Quarterly Journal of the Royal Meteorological Society**

### Early View

Online Version of Record before inclusion in an issue

### Examining relationships between cloud-resolving model parameters and total flash rates to generate lightning density maps

Christophe Bovalo, Christelle Barthe, Jean-Pierre Pinty

Version of Record online: 05 March 2019

Lightning density maps are produced in a cloud-resolving model using two methods: with an explicit lightning scheme and based on calibrated proxies. These proxies (graupel mass, updraught volume for  $w > 10$  m/s, precipitating and non-precipitating ice mass flux product and maximum updraught) are related to lightning rate densities through linear relationships. Results are illustrated on the 24 September 2012 case over France. It shows that the total graupel mass is a good estimator of lightning activity.

## **Quarterly Journal of the Royal Meteorological Society**

### Accepted Articles

Accepted, unedited articles published online and citable. The final edited and typeset Version of Record will appear in the future.

### Statistical post-processing of dual-resolution ensemble forecasts

Sándor Baran, Martin Leutbecher, Marianna Szabó, Zied Ben Bouallègue

First Published: 07 March 2019

### A spatially explicit and temporally highly resolved analysis of variations in fog occurrence over Europe

Sebastian Egli, Boris Thies, Jörg Bendix

First Published: 07 March 2019

Occurrence and Detection of Impact Multipath Simulations of Bending Angle

Xiaolei Zou, Hui Liu, Ying-Hwa “Bill” Kuo

First Published: 06 March 2019

Statistical generation of SST perturbations with spatio-temporally coherent growing patterns

Daisuke Hotta, Yoichiro Ota

First Published: 04 March 2019

The impact of spin up and resolution on the representation of a clear convective boundary layer over London in order 100m grid-length versions of the Met Office Unified Model.

H.W. Lean, J.F. Barlow, C.H. Halios

First Published: 04 March 2019

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**Journal of Applied Meteorology and Climatology - Volume: 58, Number: 3 (March 2019)**

ARTICLES

Assessing Wind Data from Reanalyses for the Upper Midwest

Jacob J. Coburn

Heat Waves in Florida: Climatology, Trends, and Related Precipitation Events

Shealynn R. Cloutier-Bisbee, Ajay Raghavendra, and Shawn M. Milrad

Gamma Drop Size Distribution Assumptions in Bulk Model Parameterizations and Radar Polarimetry and Their Impact on Polarimetric Radar Moments

Katharina Schinagl, Petra Friederichs, Silke Trömel, and Clemens Simmer

Meteorological Impacts on Commercial Aviation Delays and Cancellations in the Continental United States

Christopher J. Goodman and Jennifer D. Small Griswold

Past and Projected Freezing/Thawing Indices in the Northern Hemisphere

Xiaoqing Peng, Tingjun Zhang, Yijing Liu, and Jing Luo

The Application of an Evolutionary Programming Process to a Simulation of the ETEX Large-Scale Airborne Dispersion Experiment

David Werth, Grace Maze, Robert Buckley, and Steven Chiswell

Regional Decadal Climate Predictions Using an Ensemble of WRF Parameterizations Driven by the MIROC5 GCM

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Evaluation of the Ventilation Index in Complex Terrain: A Dispersion Modeling Study

Michael T. Kiefer, Joseph J. Charney, Shiyuan Zhong, Warren E. Heilman, Xindi Bian, John L. Hom, and Matthew Patterson

Turbulence Variations in the Upper Troposphere in Tropical Cyclones from NOAA G-IV Flight-Level Vertical Acceleration Data

John Molinari, Michaela Rosenmayer, David Vollaro, and Sarah D. Ditchek

Weather Simulation Uncertainty Estimation Using Bayesian Hierarchical Models

Jianfeng Wang, Ricardo M. Fonseca, Kendall Rutledge, Javier Martín-Torres, and Jun Yu

An Investigation of Cold-Season Short-Wave Troughs in the Great Lakes Region and Their Concurrence with Lake-Effect Clouds

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Trends in Instrument Flight Rules (IFR) Conditions at Major Airports in the United States

Scott E. Stevens

Quality and Value of Seasonal Precipitation Forecasts Issued by the West African Regional Climate Outlook Forum

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Bulletin of the American Meteorological Society - Volume: 100, Number: 2 (February 2019)

MAP ROOM

Tornado Debris from the 23 May 2017 "Tybee Tornado"

Alan W. Black, John A. Knox, Jared A. Rackley, and Nicholas S. Grondin

## ESSAY

### Is Precipitation a Good Metric for Model Performance?

Francisco J. Tapiador, Rémy Roca, Anthony Del Genio, Boris Dewitte, Walt Petersen, and Fuqing Zhang

## ARTICLES

### The Northern California Wildfires of 8–9 October 2017: The Role of a Major Downslope Wind Event

Clifford F. Mass and David Ovens

### A Call for the Evaluation of Web-Based Climate Data and Analysis Tools

Kristin VanderMolen, Tamara U. Wall, and Britta Daudert

### A Scale to Characterize the Strength and Impacts of Atmospheric Rivers

F. Martin Ralph, Jonathan J. Rutz, Jason M. Cordeira, Michael Dettinger, Michael Anderson, David Reynolds, Lawrence J. Schick, and Chris Smallcomb

### The Ozone Water–Land Environmental Transition Study: An Innovative Strategy for Understanding Chesapeake Bay Pollution Events

John T. Sullivan, Timothy Berkoff, Guillaume Gronoff, Travis Knepp, Margaret Pippin, Danette Allen, Laurence Twigg, Robert Swap, Maria Tzortziou, Anne M. Thompson, Ryan M. Stauffer, Glenn M. Wolfe, James Flynn, Sally E. Pusede, Laura M. Judd, William Moore, Barry D. Baker, Jay Al-Saadi, and Thomas J. McGee

### Partnering Research, Education, and Operations via a Cool Season Severe Weather Soundings Program

Keith D. Sherburn, Matthew D. Parker, Casey E. Davenport, Richard A. Sirico, Jonathan L. Blaes, Brandon Black, Shaelyn E. McLamb, Michael C. Mugrage, and Ryan M. Rackliffe

### NCAR's Real-Time Convection-Allowing Ensemble Project

Craig S. Schwartz, Glen S. Romine, Ryan A. Sobash, Kathryn R. Fossell, and Morris L. Weisman

## MEETING SUMMARIES

Polar Low Workshop

Günther Heinemann, Chantal Claud, and Thomas Spengler

Defining Uncertainties through Comparison of Atmospheric River Tracking Methods

Christine A. Shields, Jonathan J. Rutz, L. Ruby Leung, F. Martin Ralph, Michael Wehner, Travis O'Brien, and Roger Pierce

Data-Driven Scientific Workflows: A Summary of New Technologies and Datasets Explored at the Unidata 2018 Workshop

Kevin H. Goebbert, John T. Allen, Victor A. Gensini, and Mohan Ramamurthy

**Weather**

Volume 74, Issue 3

Late winter weather 2018

Pages: E1, 78-96, i-iv, 97-116, E2-E4

March 2019

Cover Information

Cover Information

First Published: 14 March 2019

In this issue of Weather

In this issue of Weather

Paul Knightley

Pages: E1 | First Published: 14 March 2019

Weather news

Weather news

Pages: 78 | First Published: 14 March 2019

Editorial



Editorial

Paul Knightley

Pages: 79 | First Published: 14 March 2019

Special Issue Article

Atmospheric analysis of the cold late February and early March 2018 over the UK

Katie Greening, Amy Hodgson

Pages: 79-85 | First Published: 14 March 2019

Mean 850hPa temperatures (K) from 21 to 28 February (Source: Physical Sciences Division, NOAA/ESRL.)

Research Article

The very deep cold pool of 27 February–1 March 2018 – historical precedents and perspective

Edward Graham, Jonathan D. C. Webb

Pages: 85-91 | First Published: 14 March 2019

Short Article

A study of freezing precipitation in Devon

Keith Fenwick

Pages: 92-93 | First Published: 01 November 2018

Cross section of solid precipitation that fell on Thursday 1 March into Friday 2 March in Uffculme, Devon.

Photographs

Snow and ice in March 2018

Pages: 94 | First Published: 14 March 2019

Snow and ice in March 2018

Pages: 95 | First Published: 14 March 2019

Weather images

Weather images

Pages: 96 | First Published: 14 March 2019

Weather log

January 2019 Dry with seasonable temperatures; sunny in north, dull in southwest.

Pages: i-iv | First Published: 14 March 2019

Short Article

A hair ice observation in Devon

James Robbins, Philip Gill

Pages: 97 | First Published: 20 April 2018

Hair ice

Research Article

Severe weather and snow conditions on Cairngorm summit in February to March 2018

Mike Kendon, Mark Diggins

Pages: 98-103 | First Published: 01 November 2018

Instruments on Cairngorm summit, showing ultrasonic anemometers, whip and screen-mounted thermistors and humidity sensors in housing tubes.

Special Issue Article

Snow cover and low temperatures in February and March 2018

Jim Galvin, Mike Kendon, Mark McCarthy

Pages: 104-110 | First Published: 14 March 2019

This article examines snow depths and low temperatures during the two snowy outbreaks of February and March 2018 in the United Kingdom and Ireland. In both nations, the cold spell was a very significant event. This report was compiled from information supplied by the Met Office and Met Éireann.

Short Article

The cold outbreak of 26 February to 3 March 2018

Andy Matthews

Pages: 111-115 | First Published: 14 March 2019

Photographs

Photographs

Pages: 115 | First Published: 14 March 2019

Society news

Society news

Pages: 116 | First Published: 14 March 2019

Inside Cover Photographs

A tractor attempts to clear snow from the A523 near Bosley, Cheshire

Pages: E2 | First Published: 14 March 2019

A dusting of snow surrounds the Dart Estuary at Dartmouth, Devon

Pages: E3 | First Published: 14 March 2019

Following heavy snowfall, freezing rain during the night of 1–2 March 2018 over south Devon produced some unusual effects

Pages: E4 | First Published: 14 March 2019




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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.

March 19, 2019

News

"It Was a Little Surreal": Forecasters Flee as Tornado and Flood Target National Weather Service Offices   

March 19, 2019 - The Washington Post

Twice last week, local Weather Service offices were forced to go offline to escape Mother Nature's fury.

[Read MORE](#)

Mozambique Destruction 'Massive and Horrifying' After Cyclone Idai; Hundreds Dead, Thousands of Homes Destroyed

March 19, 2019 - The Weather Channel

Mozambique's central port city of Beira continues to pick up the pieces days after it was battered by tropical Cyclone Idai. The cyclone has killed hundreds across three countries: Mozambique, Malawi and Zimbabwe, the Associated Press reports. Hundreds more are missing.

[Read MORE](#)

Four Lessons from "Bomb Cyclone" Flooding in the Great Plains

March 19, 2019 - Forbes

A panel of experts was convened to gather perspective on the forecast, the messaging, and perceptions about this event. Four lessons emerged.

[Read MORE](#)

Most of Nebraska Under State of Emergency as "Historic" Floodwaters Ravage Midwest

March 19, 2019 - The Washington Post

Nebraska, Iowa and Wisconsin have declared states of emergency after the most powerful late-winter storm in a decade unleashed torrents of rain that melted snow, overtaking rivers and levees in powerful surges.

[Read MORE](#)

Flooded U.S. Air Force base underscores climate risk to security: experts

March 18, 2019 - Yahoo! News

Flooding at a U.S. Air Force base in Nebraska that damaged buildings and forced the removal of a plane integral to the nation's nuclear attack response highlight the risks climate change poses to national security, experts said on Monday.

[Read MORE](#)

[Volunteers sought 'to fill in weather puzzle' to help variety of public, private fields](#)

March 17, 2019 - Tulsa World

Organizers of a grass-roots weather observation network are seeking volunteers to measure precipitation — an effort, they say, that could help everyone from insurance adjusters to farmers to emergency management officials.

[Read MORE](#)

[Around the world in 34 pictures: Young people march for action on climate change](#)

March 15, 2019 - Quartz

Young people skipped school and took the streets in more than 100 countries, begging leaders for action on climate change.

[Read MORE](#)

[Air Pollution Kills More People Than Smoking](#)

March 14, 2019 - Pacific Standard

A new study, published this week in the European Heart Journal, has found that it also kills twice as many people as previously thought—surpassing even smoking-related deaths.

[Read MORE](#)

[Traces of Radioactive Particles From Massive Solar Storm Discovered in Greenland Ice](#)

March 13, 2019 - The Epoch Times

Evidence of an unusually huge solar storm that battered the Earth, showering it in radioactive particles more than 2,500 years ago, has been discovered by scientists beneath the Greenland ice sheet.

[Read MORE](#)

When Will A Massive Solar Storm Knockout Our High-Tech Society? That Depends On Who You Ask

March 13, 2019 - Forbes

In the past, a massive once-a-century solar storm could pass without incident, but now it could knock out the electrical grid, communication systems, and satellites.

Read MORE

We're The Geeks Who Have Protected the Public From Weather Extremes For 100 Years

March 13, 2019 - Newsweek

In the 21st century, the societal impact of the meteorology community is vast, extending well beyond the daily "should I take my umbrella today?" Meteorologists today come from a wide array of disciplines, together working to observe, understand, and predict the behavior of the weather, water, and climate system that surrounds us.

Read MORE

Particulate matter pollutes the air above Africa

March 12, 2019 - EurekAlert!

Explosive population growth, urbanization and a growing economy - the air over West Africa is exposed to a lot of stress.

Read MORE

What Happens When a Cyclone Becomes a 'Bomb'?

March 13, 2019 - Pacific Standard

Blizzards in March, when our thoughts start turning to spring, are never good news. But warnings of "bomb cyclones" take the intensity to a new level.

Read MORE

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March 14, 2019 - Forbes

March 14 is Pi Day, which celebrates the mathematical constant  $\pi$  (pi). In 2019, many women rallied around the day as #DressForStem Day. What is that, and why is it so important?

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[Another Superstorm? How the 2019 Bomb Cyclone Compared to the March 1993 Superstorm](#)

March 19, 2019 - The Weather Channel

The central U.S. was slammed by a powerful bomb cyclone, Winter Storm Ulmer, bringing to mind similarities to other intense systems, including the March 1993 Superstorm.

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