

New Zealand weather and climate news

MrtService mentions

Rain coming for most but no drought breaker; gales in eastern South Island

"There's good news for a lot of the southern and western parts of the South Island. That front tomorrow will bring a reasonable amount of rain," MetService meteorologist Andy Downs said.

Smoke from Australian bush fires reaches New Zealand

MetService forecaster Peter Little said smoke had been blown across the Tasman Sea on north-west winds in the mid-level of the atmosphere.

Maniototo fires close roads, threaten buildings

MetService forecaster Sarah Hadden earlier said fine conditions were forecast for the next 12 hours, with a strong northeasterly building. A southerly tomorrow afternoon was expected to bring rain.

Sunny 30 degree days and starry nights on horizon for NZ

Although autumn has arrived, it's still going to feel like high summer for residents in Blenheim, Alexandra and Ashburton this week.

MetService meteorologist Sarah Haddon said Blenheim would reach 30C on Monday.

The heat won't be beat: NZ to stay warm over autumn

Above-average temperatures that have worsened fire-making conditions in bone-dry Nelson look set to stay for the next three months, meteorologists say.

"Basically in the next five days, there's virtually nothing of note for Nelson in terms of rain – it looks very dry," MetService meteorologist Georgina Griffiths said.

World Weather With Eric Brensturm (yes, that was their spelling)

Eric Brensturm is back with a slice of his vast weather knowledge. Tonight we're taking a look at The Little Ice Age and its impact on the settlement of North America by the Spanish and English in the 1500's and 1600's.

MetOcean Mentions

Suffering in the heat: the rise in marine heatwaves is harming ocean species

In the midst of a raging heatwave, most people think of the ocean as a nice place to cool down. But heatwaves can strike in the ocean as well as on land. And when they do, marine organisms of all kinds – plankton, seaweed, corals, snails, fish, birds and mammals – also feel the wrath of soaring temperatures.

The Ocean Is Running Out of Breath, Scientists Warn

Widespread and sometimes drastic marine oxygen declines are stressing sensitive species—a trend that will continue with climate change

The impact of wave physics in the CMEMS-IBI ocean system Part A: Wave forcing validation by Romain Rainaud, Lotfi Aouf, Alice Dalphinnet, Marcos Garcia Sotillo, Enrique Alvarez-Fanjul, Guillaume Reffray, Bruno Levier, Stéphane LawChune, Pablo Lorente, and Cristina Toledano <https://www.ocean-sci-discuss.net/os-2018-165/>

Short Summary: This paper highlight the adjustment of the wave physics in order to improve the surface stress and thus the ocean/wave coupling dedicated to Iberian Biscay and Ireland domain. The validation with altimeters wave data during the year 2014 has shown a slight improvement of the significant wave height. Statistical analysis of the results of the new and old versions of the wave model MFWAM is examined for the three main ocean regions of the IBI domain.

NIWA

World weather modelling & NIWA's supercomputer

Kathryn discusses the latest developments in world-wide weather forecasting, and New Zealand's role in it, with [Jon Petch](#), a senior executive from the UK Met Office. New Zealand is one of five countries combining forces to predict weather patterns around the globe, thanks to NIWA's supercomputer. An international conference on the future of weather forecasting and climate modelling is taking place in Wellington this week, focusing on the [UK Unified Model Partnership](#), which has been used for predicting the majority of the world's weather for the past five years and allows forecasters to make predictions from hours out, to centuries.

How NeSI and NIWA help the UK Met Office develop next generation weather analysis tools

Interpolation is ubiquitous in climate and weather models. Alexander Pletzer and Wolfgang Hayek at NeSI have developed a new interpolation method that will improve the UK Met Office's ability to forecast weather events.

Summer was New Zealand's third-hottest on record

New Zealand has just experienced its third-warmest summer in history, according to official Niwa climate figures.

Critical need for accurate forecasting, climate experts visiting Wellington say

The fighting of the Nelson fires is an example of critical weather forecasting in action, climate experts say.

An international climate change partnership, the global Unified Model, was renewed at Te Papa by international experts for continued research to cope with a changing climate.

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

Turkey sets up meteorological station in Antarctica

A team of Turkish researchers established the observation station in Antarctica, which will provide meteorological data such as wind speed, pressure and global solar radiation for two years.

Extreme weather (and other news) – Australia and Pacific

Cyclone season highlights Pacific's disaster-prone world ranking

Unicef says the current cyclone season drives home the latest data showing the Pacific is the most disaster-prone region in the world.

The Madden-Julian oscillation is one reason cyclones are steering clear of WA in 2019

By this time last year, a series of cyclones and tropical lows had dumped an unprecedented amount of rain on Western Australia's Kimberley, causing major flooding in the region.

Emergency alert for Vic lightning fires

Lightning has sparked multiple fires in a Victorian state park, with some residents being told it is too late to leave.

Victorian bushfires: 2,000 firefighters battle blazes as third emergency warning issued

Fire crews rush to build containment lines ahead of cold change expected to bring gusty winds and dry lightning

Why Victoria's bushfires generated their own lightning

There are few sights more terrifying for a firefighter: a vast, dark storm cloud brewing above a bushfire, shooting out lightning.

Victoria's Mount Baw Baw has bushfires and snow all in the same week

From a bushfire emergency to a light dusting of snow, Victoria's Mount Baw Baw has experienced some wild weather over the last few days.

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

ArabiaWeather: rain in Amman on Thursday more than two years worth on other Arab capitals

The head of Arabia Weather, Osama Tarifi, revealed the amounts of rain that fell on the Kingdom during the day on Thursday, as Jordan was affected by a fourth grade weather depression.

Mini heatwave to hit northern Thailand next week

ThaiVisa News

Forecasters have said that due a high pressure weather system, temperatures in upper and northern Thailand could reach 39 degrees Celsius during ...

Iran Meteorological Organization picks first female chief

Transport and Urban Development Minister Mohammad Eslami appointed Sahar Tajbakhsh as IMO director, replacing Davood Parhizkar.

Tajbakhsh holds PhD degree in meteorology, enjoys more than 20 years of working experience at IMO as deputy director for research affairs. She has served as faculty member of the IMO research center and executive director of international conference on climate change.

Extreme weather (and other news) – Americas and Europe

Met Office appeals for help digitalising records to help it understand UK weather patterns

The Met Office is appealing to members of the public to help it collate millions of weather records to give forecasters a better understanding of how the UK's climate works.

Italian insurer places \$51 million cat bond for severe weather risks

Italian insurer UnipolSai Assicurazioni SpA has completed a €45 million (\$51.2 million) catastrophe bond protecting it against a range of severe weather risks in Italy, Willis Towers Watson PLC said Friday.

It's Official: Hay Fever Season Has Started Already – And Might Last For Months

“The pollen season could feel it has lasted longer, given it started earlier.”

With more dark clouds in horizon, Russian Arctic meteorologists get almost a billion for studies of the weather

It is allocated from the government’s reserve fund and is to strengthen Arctic weather forecasting.

Four Forecast And Messaging Takeaways From The Southern Tornado Outbreak

This past weekend a swarm of devastating tornadoes ripped through parts of Alabama, Florida and Georgia. According to Accuweather.com, "This was the deadliest tornado outbreak in the U.S. since May 2013, when a massive and devastating tornado killed 24 people in Moore, Oklahoma."

Tornadoes in the Southeast are getting worse -- and they're often the deadliest

(CNN)In recent years, scientists have noticed an increased frequency of tornadoes in the Southeast, carving a deadly path in what's called Dixie Alley.

BBC Weather: BARRAGE of weather systems to unleash SNOW and rain across Europe

SNOW is set to strike western Europe this week as a series of weather systems hurtle towards the continent and unleash heavy rain and devastating winter conditions.

International news and research

High CO2 levels can destabilize marine layer clouds

Computer modeling shows that marine stratus clouds could disappear if atmospheric CO2 levels climb high enough, raising global temperatures.

Amazon forest: Areas with higher rainfall variability are more resilient to climate change

The Amazon rainforest has evolved over millions of years and even through ice ages. Yet today, human influences and global climate change put this huge ecosystem at risk of large-scale dieback -- with major consequences for its capability as a global CO2 sink. New research now

reveals a key player in shaping the resilience of the Amazon, and finds that regions with generally higher rainfall variability are more resilient to current and future climate disturbances.

[Why it's hard to pin the UK's oddly warm February on climate change](#)

Extreme weather events are being made more common by climate change. Scientists, of course, need more proof. But the general public really don't

[Hurricanes offer climate pointers: Violent storms leave clues in their damaging wake](#)

Scientists hope violent storms leave clues in their damaging wake on severe weather's world impact.

The hurricanes that pounded Puerto Rico in 2017, blasting away most of its forest cover, may give scientists clues to how the world will respond to climate change and increasingly severe weather.

[A 'Dragon Aurora' Appeared in the Sky Over Iceland, and NASA Is a Little Confused](#)

A gargantuan green dragon hisses in the sky over Iceland. Either "Game of Thrones" really upped its production budget for its final season, or the sun belched a barrage of charged particles into our atmosphere again.

[Tornado Terror- Meteorologists' worst fears captured in new podcast](#)

March 1 kicks off arguably the most active weather season, as tornado outbreaks begin to increase in the Southeast part of the country. It's also a time when those whose duty is to warn the masses of killer storms –recall their scariest moments while on the air, during storm coverage.

WHNT News 19's Jason Simpson is one of five veteran meteorologists who talked openly, in a new podcast that debuts today, "Tornado Alert: Emotional Trauma." You can catch the podcast by clicking below.

['There will be 1,075 tornadoes': Weather vendor's prediction draws scrutiny](#)

Popular weather vendor AccuWeather took the meteorological community by storm Tuesday, releasing its highly specific outlook for the 2019 tornado season. "AccuWeather predicts there will be 1,075 tornadoes in 2019," their piece begins, adding that Oklahoma, Kansas, Texas and southern Nebraska have the highest risk of twisters this spring.

[Air Force vet finds UAlbany the perfect spot for weather risk-management startup](#)

The company has served a variety of industries

In 1999, Don Berchoff helped re-engineer the way the U.S. Air Force responds to disagreeable weather.

NOAA delays launch of 'next generation' weather forecast model and names new acting head

The National Oceanic and Atmospheric Administration will not debut its "next generation" weather forecasting model in March, as planned.

NASA and NOAA emphasize value of commercial Earth science data

WASHINGTON — The new acting administrator of NOAA and the retiring head of NASA's Earth sciences division praised the potential of commercial satellite data purchases to augment their own satellite systems.

Q&A: How data science improves weather forecasting

If the weather forecast is accurate, you might want to thank a little-known data scientist in Ohio. Eric Floehr is a computer scientist who's ForecastWatch software has become the industry standard for businesses.

Five Years of Global Precipitation Measurement Satellite Data

[NASA] Five years ago last week on Feb. 27, 2014, the Global Precipitation Measurement (GPM) Core Observatory, a joint satellite project by NASA and the Japan Aerospace Exploration Agency (JAXA), lifted off aboard a Japanese H-IIA rocket. Since then, the cutting-edge instruments on GPM have provided advanced measurements about the rain and snow particles within clouds, Earth's precipitation patterns, extreme weather and myriad ways precipitation around the world affects society. Among the uses of GPM data are helping to forecast disease outbreaks in developing countries, producing global crop reports and identifying endangered Amazon river basins.

Team wins UCAR award for tool that could improve weather forecasting

BOZEMAN -- When a hail storm unleashes on Montana's plains, a precise warning an hour or more in advance could allow ranchers to lead livestock to shelter, gardeners to bring in potted plants and residents to protect vehicles and other valuables.

A faster, more accurate way to monitor drought

A new drought monitoring method allows scientists to identify the onset of drought sooner, meaning conservation or remediation measures could be put into place sooner. The new

method uses thermal stress -- the difference between air and surface temperatures at a site -- as a drought indicator.

India's stubble burning air pollution causes USD 30 billion economic losses, health risks

India's air pollution made headlines around the globe last year. Researchers estimate the economic and health cost of air pollution caused due to stubble burning at USD 30 billion per year in a new research -- the first to arrive at these estimates.

Drought, heat and fire leave massive tree graveyards on all continents (The Science Show, ABC RN)

We've heard that encouraging the growth of trees is a simple method of sucking carbon dioxide out of the atmosphere. Trees convert atmospheric carbon dioxide into wood. But we are headed in the wrong direction

WMO

Climate research for the 21st century

The achievements and future directions of the are outlined in a Nature Climate Change interview with Professor Dame Julia Slingo, who led a comprehensive review of the WMO co-sponsored programme.

WMO seeks to develop the first global atmospheric deposition maps of pollutants

Increasing levels of airborne pollutants deposited either through gravity (i.e. free-falling) or washed out by rain can result in detrimental effects to crops, human health and vulnerable ecosystems...

Regional Information for Extreme Events: An Early Career Perspective

The paper emerged from discussions during the three-day Young Earth System Scientists - Young Hydrologic Society (YESS-YHS) workshop, which was conjointly held with the Global Energy and Water...

WMO Update: 50-60% chance of El Niño within next 3 months

There is a 50-60% chance of El Niño developing by May 2019, although it is not expected to be a strong event, according to the latest update from the World Meteorological Organization (WMO). Sea...

AMCOMET calls for greater investment in Africa to improve weather and climate services

Posted:

The African Ministerial Conference on Meteorology (AMCOMET) has issued a call for greater investment by national governments and development partners, in weather, climate and water services in order...

Aviation

Gold Coast Airport's new severe weather landing infrastructure

Gold Coast Airport has switched on its Instrument Landing System (ILS), aimed at helping pilots land during severe weather conditions.

Operation of the ILS, which brings to an end more than a decade of preparation and installation work on the project, is expected to reduce the number of diversions into the airport during adverse weather conditions.

Air Canada rumoured to be launching Auckland-Vancouver route

Air Canada looks set to launch a seasonal Auckland-Vancouver service from December 12.

Boulder scientists flying in rough conditions to improve aviation forecasting

As much of the country is still enduring wintry conditions, scientists involved in a Boulder-based field campaign are flying through some of the worst of it, collecting data aimed at improving forecasts and weather models for those working in aviation.

Air Dynasty crash in Nepal raises a question—again—why so many choppers are going down in the country | #AsiaNewsNetwork

Kathmandu (The Kathmandu Post) - The crash of an Air Dynasty helicopter in the eastern mountain region of Taplejung on Wednesday—killing all seven aboard—is the second fatal chopper crash in Nepal's skies in just six months.

7 different types of turbulence and how pilots navigate this nuisance while flying

New reports warn air turbulence could become more common because of climate change, but according to experts, turbulence isn't usually something for airline passengers to worry about.

Business/Insurance

Freak weather 'will make life harder for business'

First we had the Beast from the East, then the joint hottest summer on record, and now February winter temperatures have soared to all-time highs (although those balmy conditions came to an end on Thursday).

Communications/social media

Tweets tell scientists how quickly we normalize unusual weather

What kinds of weather do people find remarkable, when does that change, and what does that say about the public's perception of climate change? A study examined those questions through the lens of more than 2 billion US Twitter posts.

Spare me your sunny disposition about the weather and just give us the facts

OPINION: "A cracker of a day", "Your weather is looking fine", "beautiful clear skies", "once that cloud clears off it's looking good", "showers in Fiordland but decent day for rest of Aotearoa" and even insensitively during drought and fire "wet in the south of the South Island and another lovely sunny day in Nelson/Tasman".

Farming/horticulture/Aquaculture

New Zealand Agricultural Climate Change Conference

New Zealand's most important agricultural conference on climate change for two years will be held in Palmerston North on April 8-9. It will bring together scientists, government policy advisors, farmers and industry leaders to discuss the theme of meeting the challenges of climate change with respect to farming.

Health

2015-2016 El Niño triggered disease outbreaks across globe

The 2015-2016 El Niño event brought weather conditions that triggered regional disease outbreaks throughout the world, according to a new study.

Thunderstorm asthma: revealing a hidden at-risk population

Authors: Clayton-Chubb D et al.

Summary: These researchers surveyed staff and volunteers regarding the nature and extent of respiratory symptoms among healthcare workers during the Melbourne epidemic thunderstorm asthma event; the survey was completed by 511 respondents, mostly female, from a potential pool of ~9000. Symptoms suggestive of asthma during the Melbourne

epidemic thunderstorm asthma event were reported by 25.6% of respondents, among whom most did not seek professional medical help. Among respondents reporting symptoms, 43.9% and 73.5% had histories of asthma and allergic rhinitis, respectively. Strong predictors of symptoms included a history of allergic rhinitis (odds ratio 2.77 [$p < 0.001$]), a history of asthma (1.67 [$p = 0.037$]) and Asian ethnicity self-identification (3.24 [$p < 0.001$]); predominantly being indoors did not protect against symptoms.

Comment: This article links into the review on 'Underdiagnosis and overdiagnosis of asthma'. In 2016, more than 3500 patients needed treatment for thunderstorm asthma overwhelming the health system and leading to ten deaths from asthma. This survey was performed among 9000 staff and volunteers of Eastern Health. The low response rate of 6% opens the study up to selection bias. Of the 500 staff who responded, more than half reported a history of atopy, including allergic rhinitis, and about a quarter experienced asthma symptoms during the thunderstorm. The authors' bottom line: a background of allergic rhinitis or grass pollen allergy increases the risk of developing thunderstorm asthma.

Reference: Intern Med J 2019;49:74–8

Abstract

Heatwave misperceptions lead to danger

South Australians don't see heatwaves as serious events and warnings do little more than 'trigger' common-sense behaviours like turning on the air-conditioner, new research from the University of Adelaide shows.

History

Four Women Who Changed The Field Of Meteorology

In 2017 I wrote about Klara Dan von Neumann, a "hidden figure" of history that played a significant role in pioneering modern weather prediction. Her story, like so many others, are tucked away in obscurity. As with many groups, contributions of women are typically underrepresented in history books or written from very narrow perspectives.

Hydrology / Flooding

Local Flood Forecasting Has Been Dangerously Imprecise—That's About to Change

Scientists are crafting clearer, faster ways to warn of serious damage from flooding

Lightning

Signals from distant lightning could help secure electric substations

Side channel signals and bolts of lightning from distant storms could one day help prevent hackers from sabotaging electric power substations and other critical infrastructure, a new study suggests.

Lucky escape for fishermen off Broome coast after fishing rod struck by lightning

A trio of fishermen are lucky to be alive after a lightning storm at sea struck a fishing rod attached to their boat.

Kim Ford said he and two friends left the Broome coast early this morning, eager to begin fishing again after a period of poor weather.

Transport/roading/shipping/freight

Weather-responsive intersections could ease traffic congestion

Cities could ease congestion and improve safety during snowstorms by tweaking the timing of traffic lights to take road conditions into account.

Injuries after a 'sudden, extreme gust of wind' causes a cruise ship to tilt on its side

Sure, it's normal for a cruise ship to rock amidst the choppy waters at sea. But passengers aboard Norwegian Cruise Line's Escape described the listing they experienced on Sunday as "unusual," when speaking to [CNN](#).

project44 Extends Advanced Visibility Platform with Ocean Visibility

CHICAGO--(BUSINESS WIRE)--Mar 5, 2019--project44 announced today the availability of ocean visibility on the project44 Advanced Visibility Platform. Ocean visibility enables shippers, including beneficial cargo owners (BCOs), freight forwarders (FFWs) and third-party logistics firms (3PLs), to track North American-bound container shipments as they arrive in port for shipment, travel across the ocean and are discharged from vessels to be moved onto rail or trucks. Such broad and detailed ocean shipment visibility has previously been unattainable for many shippers, FFWs and 3PLs.

Kongsberg to add Met Office data to Kognifai

Following signing of a partner agreement, meteorological and oceanographic data from UK-based Met Office will be available customers, independent software developers and other users of Kongsberg Digital's Kognifai ecosystem.

Road police: high turnover, low experience pool means response not prevention

Police patrolling the country's roads say they are understaffed and unable to effectively tackle road safety.

Innovation and technologies (inc data and new products)

How 5G will fuel future business (Podcast)

5G doesn't just mean faster internet for you and your staff. Ultra-high-speed data will also open up a world of new applications and opportunities for business

See The Weather Channel's immersive mixed reality segment in action

The Weather Channel is using new real-time graphics and visual effects in many of their videos. See an example of it during this ice and climate change segment.

IBM to Use IoT, Watson and Data to Boost Sugar Cane Production in Thailand

Today, Big Blue announced a two-year research collaboration with the Thailand government's National Science and Technology Development Agency (NSTDA) that will use IBM's Internet of Things (IoT), artificial intelligence (AI) and analytics capabilities to help improve sugarcane yields in Thailand. (Thailand is the world's second largest exporter of sugar.) The pilot will run on three sugar cane farms covering 1 million square meters run by Mitr Phol, Asia's largest sugar producer.

Jupiter raises \$23 million to tell businesses and governments how climate change will destroy them

Whether it's by flood, fire, or the fury of a storm, climate-related catastrophes are now impacting most cities and towns across the country. As these natural disasters increase in frequency and severity, cities and the businesses that reside in them are mobilizing to understand how best to prepare for the climatological challenges they're going to face — and increasingly they're turning to companies like Jupiter Intelligence for information.

Climate change / global warming / sea level rise

The 'boiling frog': Are we 'normalising' climate change when we should be fighting it?

New Zealand again just experienced one of its warmest summers on record, meteorologists will announce this week.

It will sit within our top five hottest summers in more than a century of records – the figures are being finalised by Niwa scientists – and more unusually warm weather is predicted for the months ahead.

Climate change is shifting productivity of fisheries worldwide

Fish provide a vital source of protein for over half the world's population, with over 56 million people employed by or subsisting on fisheries. But climate change is beginning to disrupt the complex, interconnected systems that underpin this major source of food.

Why the polarization in U.S. on climate change?

A veteran physical and social scientist explains underlying causes of 'polarization,' a lead-in to his Part II post exploring ways to deal with it.

Climate warning for NZ business: 'adapt or get left behind'

Kiwi businesses need to get on top of their emissions now or risk being caught out by new legislation, a new report has found.

The report, just published by law firm Bell Gully, looked at proposed changes to the Emissions Trading Scheme (ETS) which could mean many companies may find it harder and more costly to gain access to units they need to meet obligations.

Several mayors 'unsure' whether human activities contribute to climate change

Several New Zealand mayors are still reluctant to say they agree with the scientific consensus that human activities have an impact on climate change.

Climate change and water in the Hindu Kush Himalayas

The HKH is very important to the planet and human livelihoods. It hosts a complex ecosystem with unique biodiversity and ten river systems. It spreads across 16 countries and influences the monsoon seasons in Asia. The future of the HKH, however, is under threat from a variety of anthropogenic sources. Climate change, in particular, is likely to pose an intractable problem. Even at the lower limit set by the Paris Agreement, 1.5° C, predictions indicate that rapid glacial melting and extreme weather will increase water insecurity across the region. Similarly, local human activity has already caused a number of problematic changes to the hydrology of the region, which have exacerbated the summer dryness and winter floods that are common in the HKH. These effects are also depleting groundwater resources beyond their capacity to recharge. As water resources continue to degrade, the poorest communities are the most likely to suffer severe consequences.

Jim Salinger and Michael Mann: Media should not give climate deniers a platform

Under headlines that rang out across the world last week we read, "Evidence for man-made global warming has reached a gold standard level of certainty, adding pressure for cuts in greenhouse gases to limit rising temperatures".

Journal and articles online

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.

Evidence for Nonlinear Processes in Fostering a North Pacific Jet Retraction

Melissa Breeden, Jonathan E. Martin

First Published: 21 February 2019

Estimating model evidence using ensemble-based data assimilation with localization - The model selection problem

S. Metref, A. Hannart, J. Ruiz, M. Bocquet, A. Carrassi, M. Ghil

First Published: 21 February 2019

A two-fluid single-column model of the dry, shear-free, convective boundary layer

J. Thuburn, G. A. Efstathiou, R. J. Beare

First Published: 19 February 2019

Classifying the Nocturnal Atmospheric Boundary Layer into Temperature and Flow Regimes

L. Pfister, K. Lapo, C. Sayde, J. Selker, L. Mahrt, C. K. Thomas

First Published: 19 February 2019

A Revised Implicit Equal-Weights Particle Filter

Jacob Skauvold, Jo Eidsvik, Peter Jan van Leeuwen, Javier Amezcua

First Published: 18 February 2019

On- and off-line evaluation of the Single-Layer Urban Canopy Model in London summertime conditions

Aristofanis Tsirogakis, Gert-Jan Steeneveld, Albert A.M. Holtslag, Simone Kotthaus, Sue Grimmond

First Published: 18 February 2019

Circumventing the pole problem of reduced lat-lon grids with local schemes. Part I: analysis and model formulation

P. Bénard, M. R. Glinton

First Published: 18 February 2019

Trapped mountain waves with critical level just below the surface

C. Soufflet, F. Lott, F. Damiens

First Published: 18 February 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. Searchable archives are [available online](#).

March 5, 2019

News

Coldest Temperatures Ever Measured in the Contiguous U.S.

March 5, 2019 - Weather Underground

Since the beginning of “modern” meteorological observations in the U.S. (circa 1875) only a handful of sites have officially measured temperatures of -60° or lower.

[Read MORE](#)

CSI ENSO: The Case of the Missing Central Pacific Rainfall

March 5, 2019 - NOAA

The tropical Pacific Ocean and atmosphere have finally coupled, allowing NOAA to declare that weak El Niño conditions are present. But ENSO forecasters are left with a mystery: why did the expected atmospheric response go missing for so long?

[Read MORE](#)

Four Forecast and Messaging Takeaways from the Southern Tornado Outbreak

March 5, 2019 - Forbes

This past weekend a swarm of devastating tornadoes ripped through parts of Alabama, Florida and Georgia. As a meteorologist and a scientist who pays close attention to weather and the risk messaging, there are four things about this outbreak that I noticed.

[Read MORE](#)

[Deadliest Tornado Day in Years: How It Happened](#)

March 5, 2019 - Weather Underground

Sunday was the deadliest tornado day in the United States in nearly six years, and while severe weather was forecast for the South well in advance, there was uncertainty in how many tornadic thunderstorms would develop in the hours before it began.

[Read MORE](#)

[A "Snow Tornado" Spun up in New Mexico Last Week and Might Be the First Documented in the U.S.](#)

March 5, 2019 - The Washington Post

The National Weather Service in Albuquerque confirmed the funnel as a landspout, which is a tornado that forms from the ground up rather than one that descends from spinning clouds above.

[Read MORE](#)

[Los Angeles Failed to Hit 70 Degrees in February for the First Time in Recorded History](#)

March 5, 2019 - The Washington Post

For the first time on record, Los Angeles went an entire February without once hitting 70 degrees. And the City of Angels registered its coldest month since 1962, averaging about five degrees colder than normal.

[Read MORE](#)

[Boulder scientists flying in rough conditions to improve aviation forecasting](#)

March 3, 2019 - The Denver Post

As much of the country is still enduring wintry conditions, scientists involved in a Boulder-based field campaign are flying through some of the worst of it, collecting data aimed at improving forecasts and weather models for those working in aviation.

[Read MORE](#)

[Four Women Who Changed The Field Of Meteorology](#)

March 3, 2019 - Forbes

As with many groups, contributions of women are typically underrepresented in history books or written from very narrow perspective. Women's History Month is a time to celebrate such pioneers.

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[Scientist investigates the mystery of secondary ice production](#)

March 1, 2019 - Phys.org

Why does the observed concentration of ice particles in a cloud system often exceed, by several orders of magnitude, the nearby number of primary ice nuclei? In sum, why does so much ice in clouds get made from so few apparent ingredients?

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[Winter Heatwave in Europe Will Extend Into the Middle of March](#)

March 1, 2019 - Bloomberg

Europe's freakishly warm weather is likely to extend into the middle of March and may be evidence that human activity like burning fossil fuels is shifting the climate.

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['Rivers in the sky' are why California is flooding](#)

March 1, 2019 - National Geographic

The rains were born far away, deep in the tropical Pacific, where water evaporated from the warm ocean surface and fizzed into the atmosphere. The drenched air parcel flow then moved sinuously along, an "atmospheric river" winding its way toward land.

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[Heavy snow on Maui. Historic floods on Kauai. Hawaii weather is getting weird. Here's why](#)

February 28, 2019 - Hawaii News Now

In early February, more than a foot of snow blanketed Polipoli Spring State Recreation Park on Maui — elevation 6,200 feet. Though records are spotty, it's believed to be the lowest elevation snowfall in modern Hawaii.

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[Meet the man behind the mic: American weather icon says farewell as illustrious 51-year career comes to a close](#)

February 28, 2019 - AccuWeather.com

Years of expertise has garnered accolades for Abrams from the American weather industry. He is one of a select few people in the world who has earned the accredited status of Certified Consulting Meteorologist along with the American Meteorological Society (AMS) Seal of Approval for both radio and television.

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[Local Flood Forecasting Has Been Dangerously Imprecise--That's About to Change](#)

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Scientists are crafting clearer, faster ways to warn of serious damage from flooding.

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[Why It's Been Snowing in the West, Even When Temps Were Above Freezing](#)

February 27, 2019 - Discover Magazine Blogs

The last time Jim Murphy saw snow in Los Angeles, he was 11 years old. It was December, 1968 — a week or so before holiday break — and the already unruly class was stirred into a frenzy when one sixth grader spotted the flurries outside.

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[Aiming for gold—improving reproducibility in hydrology studies](#)

February 27, 2019 - Phys.org

This low level of reproducibility is not uncommon in hydrology studies—a fact many scientists readily acknowledge. However, a team of researchers at Utah State University may have found a solution to make these studies more reproducible.

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[First African American female hurricane hunter flies into the eye of world's most dangerous storms](#)

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U.S. Air Force Master Sergeant Karen P. Moore says hurricane hunting is a mission to help humanity.

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[Climate Change Is Having a Major Impact on Global Health](#)

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Warming temperatures are exposing more people to heat waves and increasing the risk of disease spread.

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[Floods Turn Northern California Towns Into Islands: 'Our World Is Getting Smaller'](#)

February 28, 2019 - National Public Radio

Guerneville, Calif., "is officially an island," the Sonoma County Sheriff's Office said after heavy rains caused the Russian River to rise nearly 14 feet above its flood stage Wednesday night. The high waters isolated both Guerneville and nearby Monte Rio.

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