

New Zealand weather and climate news

MetService mentions

Front making way over country set to scrape those in north at end of Easter weekend

However, MetService meteorologist Claire Nickson told the Herald said those in the north, Auckland included, are likely to have a reasonably good ...

MetService's website revamp could give more towns their time in the sun

In Picton, the locals have long known that the seaside town is five degrees cooler in summer and five degrees warmer in winter than Blenheim, the main town in Marlborough.

Weather: Top of the North Island tipped to be the best place for Easter weekend

For the entire week, MetService duty forecaster Larissa Marintchenko said those in the Auckland area can expect temperatures of about 10C overnight and 20C during the day.

So much for the sunshine: Hawke's Bay's dreary weather to be the worst in NZ this week

MetService meteorologist Andy Best described the East Coast of the North Island as a "fly in the ointment", compared with an otherwise sunny country.

Dry spell leaves south Otago farms in desperate state

He said an "inch" of rain fell on Wednesday but warm weather was now critical for ... If we get [a spell of] warm weather that should get us out of a hole.

Easter bunny to deliver mix of showers and sunshine this weekend

MetService meteorologist Lisa Murray said there would be a "period of rain" mainly over the South Island this weekend, "but it will spread northward".

Data showing winds of 413km/h in Levin wrong - MetService

An anomaly in MetService's weather data showing Levin being battered by more than 400km/h winds on Friday is inaccurate, according to the weather ...

Sea level rise will cause \$7b worth of damage to Wellington unless emissions are drastically cut

From water meters to congestion charges, few political hot potatoes have been left untouched by a Wellington City Council plan that aims to slash the city's carbon emissions to zero in 30 years.

MetOcean

Imaging project shows ocean weather

Otago Daily Times

The image, taken from the European Space Agency satellite Sentinel-2, shows ocean weather - specifically, what are known as "sub-mesoscale ...

ECMWF

Weekend Forecast Model Update: ECMWF Makes Big, Warmer Changes To The 4-15 Day, Adding ...

Seeking Alpha

Friday night and Saturday afternoon, ECMWF model runs make warmer changes to the 4-15 day outlook. Warmer forecast model change to add more ...

WMO

Global Atmosphere Watch programme turns 30

WMO's Global Atmosphere Watch (GAW) Programme is marking its 30th anniversary this year. The programme, which embraces about 100 countries, aims at forging an integrated global understanding of...

Hydrology Forum 2019 - Slovak Hydrometeorological Institute (SHMI)

The Slovak Hydrometeorological Institute (SHMI), with the support of the Ministry of Environment of the Slovak Republic, is hosting the Hydrology Forum for the Regional Association VI (RA VI) of the...

World Meteorological Centres boost global cooperation

The first World Meteorological Centres Workshop, hosted by the China Meteorological Administration in Beijing, has agreed to strengthen cooperation mechanisms to boost global forecasting capabilities...

Extreme weather (and other news) – Antarctica and offshore

Warm winds in autumn could strain Antarctica's Larsen C ice shelf

New research shows that the Larsen C ice shelf -- the fourth largest ice shelf in Antarctica -- experienced an unusual spike in late summer and early autumn surface melting in the years 2015

to 2017. The study, spanning 35 years from 1982 to 2017, quantifies how much of this additional melting is due to warm, dry air currents called foehn winds that originate high in the peninsula's central mountain range.

New Chief Executive for Antarctica New Zealand

Antarctica New Zealand is delighted to announce that Sarah Williamson is the organisation's new Chief Executive.

Extreme weather (and other news) – Australia and Pacific

Australian cyclone tracking has become far more accurate and sophisticated since Cyclone Tracy

ABC Local

But such a destructive scenario is unlikely to play out today as vast technological improvements in cyclone tracking mean the Bureau of Meteorology ...

Drought forecast on the horizon as Samoa dry spell continues

Radio New Zealand

A dry spell gripping Samoa shows no sign of abating, with forecasts of a drought on the horizon. Farmers have blamed the dry spell for the ...

Pacific island cities call for a rethink of climate resilience for the most vulnerable

The impacts of climate change are already being felt across the Pacific, considered to be one of the world's most-at-risk regions. Small island developing states are mandated extra support under the Paris Agreement. Many are classified as least developed countries, allowing them special access to development funding and loans.

Fiji sets up trust fund for climate change victims

The Fiji government has set up a trust fund to pay for the relocation of villages threatened by climate change.

FBC News reported Economy Minister Aiyaz Sayed-Khaiyum saying the fund was catered for in this year's budget.

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

Nepali scientists record country's first tornado

Nature.com

Reports of the storm's damage took many meteorologists by surprise. A team of researchers at The Small Earth Nepal and the country's Department of ...

NatGeo to set up weather stations on Everest

Business Standard

The National Geographic Society will set up automatic weather stations on Mount ... (This story has not been edited by Business Standard staff and is ...

Extreme weather (and other news) – Americas and Europe

Deadly storms sweep across southern US states

Powerful storms that killed at least three people swept across southern US states after spawning suspected tornadoes that left more than 20 people injured and many homes and businesses damaged or without power.

Damaging nationwide storm to cause \$3 billion in damages and economic losses, AccuWeather ...

AccuWeather.com

AccuWeather estimates the damage and economic loss from the intense storm causing blizzards, thunderstorms and severe weather across much of ...

Extreme weather 'cost Scottish farmers £161m'

BBC News

Scotland's farmers lost up to £161m last year due to extreme weather, according to an environmental charity. WWF Scotland found the losses equated ...

Better March weather boosts pubs and restaurants

insider.co.uk

“These latest figures will be a relief as the sector regains lost ground,' said Karl Chessell, director of CGA the business insight consultancy that ...

New Zealand research

Government announces \$6m for national algae centre in Nelson

The top of the south is getting a \$6.4 million injection from the Provincial Growth Fund.

International news and research

The Top 7 Most Unreasonable Expectations About Weather Forecasts

Forbes

If you read my essays in Forbes regularly, thank you. You probably have noticed that I've had a lot on my mind lately. Weather has been quite active in ...

Dutch national weather service adopts cloud to expand service offerings

ComputerWeekly.com

In addition to being a weather forecasting and monitoring service, the KNMI is a national research and ... "There is a huge demand for weather data.

Unusual phenomenon in clouds triggers lightning flash

In a first-of-its-kind observation, researchers have documented a unique event that occurs in clouds before a lightning flash happens. Their observation, called 'fast negative breakdown,' documents a new possible way for lightning to form and is the opposite of the current scientific view of how air carries electricity in thunderstorms.

How meteorologists helped guarantee Tiger's 5th Masters win

The Weather Network and Canada's leading experts on climate bring you 2xFaster, an exclusive series premiering Tuesday, April 16. And it's hard to ...

Predicting heat waves? Look half a world away

When heavy rain falls over the Indian Ocean and Southeast Asia and the eastern Pacific Ocean, it is a good indicator that temperatures in central California will reach 100°F in four to 16 days.

Thunderstorms half a world away significantly contribute to heat waves in central California

Heavy rain over the Indian Ocean and Southeast Asia and the eastern Pacific Ocean is a good indicator that temperatures in central California will reach 100°F in four to 16 days, according to a collaborative research team from the University of California Davis and the Asia-Pacific Economic Cooperation (APEC) Climate Center in Busan, South Korea.

Turkey's first meteorological tower commences operation

CAPA - Centre for Aviation

The 25m high tower aims to contribute to flight safety and provide information to airlines through meteorological equipment tailor-made for the Turkish ...

[Climate change to blame for Hurricane Maria's extreme rainfall](#)

Posted: 16 Apr 2019 10:21 AM PDT

Hurricane Maria dropped more rain on Puerto Rico than any storm to hit the island since 1956, a feat due mostly to the effects of human-caused climate warming, new research finds.

[Predictability limit: Scientists find bounds of weather forecasting](#)

Posted: 15 Apr 2019 12:47 PM PDT

In the future, weather forecasts that provide storm warnings and help us plan our daily lives could come up to five days sooner before reaching the limits of numerical weather prediction, scientists said.

[Best in snow: New scientific device creates electricity from snowfall](#)

Posted: 15 Apr 2019 01:08 PM PDT

Researchers have designed a new device that creates electricity from falling snow, a first. The device is inexpensive, small, thin and flexible like a sheet of plastic.

[North Atlantic warming hole impacts jet stream](#)

Posted: 15 Apr 2019 11:39 AM PDT

The North Atlantic warming hole (NAWH), a region of reduced warming located in the North Atlantic Ocean, significantly affects the North Atlantic jet stream in climate simulations of the future.

[Predictability limit: Scientists find bounds of weather forecasting](#)

Phys.Org

Reliable forecasts are now possible nine to 10 days out for daily weather in the mid-latitudes, where most of Earth's population lives. New technology ...

[Bridging the gap between radar meteorology/hydrology/engineering and weather prediction](#)

EurekAlert (press release)

"And the gap between the radar meteorology/hydrology/engineering and NWP communities," says Professor Zhang, "prevents the realization of the full ...

Air quality / air pollution

Climate change is making ground-level ozone pollution worse

Bad news for those of us who need to breathe.

Aviation

Avtech Released Weather Forecast Product Line To Reduce Airplanes Emissions

IEN Europe

Avtech, a Swedish IT company, has addressed the aerospace industry with the development of a weather and wind data product portfolio to foster ...

New research adds to work of Prandtl, father of modern aerodynamics

Phys.Org

Understanding those winds are vital for reliable weather predictions, which are important for air quality, aviation and agriculture. But the complexity of ...

Business/Insurance

Ontario's brutal winter costs homeowners \$118 million

The Weather Network

Thursday, April 11th 2019, 6:58 pm - Together, the aftermath of three severe weather events set homeowners back \$118 million in insured losses.

The Value of Weather Information Technologies Market Estimated to Soar Higher at 5.2% CAGR ...

Honest Version

Information technologies directed towards improving the accuracy of ... the precision of weather forecasting, which in turn, is stimulating their demand. ... By the end of 2027, the global weather information technologies market is ...

New Zealand companies need to appeal to 'Young India'

“With India having the largest population of people below 35years, it’s the ‘Young India’, that New Zealanders need to understand. Modern India is a different world”. These were some of the insights shared by Suzannah Jessep, the former NZ Deputy High Commissioner to India, Sri Lanka, Bangladesh and current Director, Research and Engagement, Asia NZ Foundation.

Energy and Mining

Tracking the sun: World-first trial of forecast technology boosts solar efficiency

Energy Matters

... the Australian Energy Market Operator (AEMO) matches electricity demand and ... To do that, they need to know what the weather is going to do.

Shifting Weather Complicates Natural Gas Pricing Even As Losing Streak Fades

Investing.com

The U.S. Energy Information Administration is expected to say in its weekly gas ... With the advent of spring, heating demand is evaporating, leaving a ...

Farming/horticulture/Aquaculture

Farmers Grow to Like Crop of Technologies Helping Them Manage Weather Risk

Insurance Journal

The companies are part of a wave of emerging high-tech firms helping farmers fight a historic foe — bad weather — that's getting increasingly wilder ...

Farm Automated Weather Stations (Aws) Market Detail Study on Business Trends and Growth

...

AppWebRadar (press release) (blog)

Farm Automated Weather Stations (Aws) Market has witnessed continuous growth in the past few years and is projected to grow even further during ...

Transport/roading/shipping/freight

Storms going ashore are bad news for shipping

ShippingWatch UK

Numbers from Japan's Weathernews, one of the world's largest providers of weather forecasts and ship route planning, show that 28 tropical storms ...

Innovation and technologies (inc data and new products)

Startups pave way for meteorological innovation: VP

Tehran Times

TEHRAN – Startups and knowledge-based companies pave the way for technologies and innovation in the field of meteorology, the vice president for ...

7 technologies Hong Kong is using to build a smart city

IT World Canada

7 technologies Hong Kong is using to build a smart city ... Hong Kong has been developing multiple technology-driven government projects as ... a 'donut casing' of surveillance cameras, a weather station, thermal traffic detector, ...

Top 5 Emerging Technologies That Will Rule By 2020

Thrive Global

Top 5 Emerging Technologies That Will Rule By 2020 ... making to-do-lists, and providing information about weather – these technological advanced ...

Research: The first-of-its-kind nanogenerator also acts as a weather station —

Tdnews

... Richard Kaner, who holds UCLA's Dr. Myung Ki Hong Endowed Chair in Materials Innovation. “It's a very clever device — a weather station that can ...

Climate change / global warming / sea level rise

Climate change threatens one in three Bangladeshi children

Worsening storms, sea level rise and other threats could drive worsening poverty, hunger, early marriage and child labour

FutureFit - a new climate action tool

Wellington City Council and Auckland Council have developed New Zealand's first gamified carbon calculator to help people to make choices to reduce their impact on climate change.

Conferences and professional development

Singapore's Smart Nation Project

On behalf of the Chair in Digital Government, you are invited to a public seminar.

We often hear that governments are "transforming themselves" with digital technology, in terms of processes relating to policy formulation, service delivery and implementation. But what prompts these transformations? Are they responses to technology fads, or driven by more fundamental strategies? If the latter, are the motivations primarily about exercising control, optimising resources, responding to citizen needs or some combination of these? And how do these motivations link to the broader strategies adopted by these governments? This talk explores these questions in relation to Singapore and its "Smart Nation" project, which aims to broaden and deepen technology use in the economy, society and public sector agencies.

Date: Tuesday 28 May

Time: 12.30 pm - 1.30 pm

Venue: Old Government Buildings, lecture theatre 1

RSVP for this event

Speaker: Aaron Maniam is a Singaporean policymaker, having served in the Foreign Service, as Head of the Centre for Strategic Futures at the Prime Minister's Office, Director of the Institute of Public Sector Leadership and Senior Director for Industry at the Ministry of Trade and Industry. He is currently pursuing a PhD at Oxford's Blavatnik School of Government, focused on how different interaction dynamics between governments and IT companies influence national digitalization programmes. He is a member of the World Economic Forum's Global Future Council on Agile Governance, and curator of the Forum's Transformation Map on agile government. He has published two collections of poetry and is a Fellow of the Royal Society for the encouragement of the Arts, Manufactures and Commerce.

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.

Application of Bayesian Inflation Approach to EnSRF Radar Data Assimilation to Improve Analysis and Forecasting of an MCS

Shibo Gao, Jinzhong Min, Limin Liu, Chuanyou Ren

First Published: 13 April 2019

Predicting impacts of climate change on the potential distribution of two interacting species in forests of western Iran

Mansoureh Malekian, Maedeh Sadeghi

First Published: 07 April 2019

Meteorological Applications

Early View

Online Version of Record before inclusion in an issue

Frequency analyses of extreme precipitation events in Western Black Sea Basin (Turkey) based on climate change projections

Mustafa Nuri Balov, Abdüsselam Altunkaynak

Version of Record online: 08 April 2019

Future variations in the frequency and magnitude of extreme precipitation events were investigated by using the outputs of global circulation models (GCMs) under two emission scenarios. The results were found to be different for several models and scenarios, but as a whole the magnitude of rainstorms by the end of the current century will increase. The outputs of the GCMs were corrected by a new statistical method which involves extreme value analysis.

Quarterly Journal of the Royal Meteorological Society

Early View

Online Version of Record before inclusion in an issue

Evidence for nonlinear processes in fostering a North Pacific jet retraction

Melissa Breeden, Jonathan E. Martin

Version of Record online: 03 April 2019

(a) The colour shading shows the 12 February average equation/qj3512-math-0001.png field in units of 10^{-4} s^{-1} . The black arrows show the 12 February average equation/qj3512-math-0002.png field, which advects equation/qj3512-math-0003.png to produce height tendencies

associated with the upper-level, nonlinear vortex interaction term. (b) The colour shading shows the 12 February averaged height tendencies associated with this term, whose forcing is shown in (a). Height tendencies are in units m (6 h)^{-1} , with positive values above 10 m (6 h)^{-1} shown. The black contours show the 12 February average equation/qj3512-math-0004.png field, contoured starting at $\pm 20 \text{ m}$ every 100 m . (c) The colour shading is the same as in (b), and the blue contours indicate the associated zonal wind tendency, contoured every 1 m/s beginning at -1 m/s . The black contours show the 12 February mean zonal wind, contoured every 10 m/s beginning at 30 m/s .

Current state of the global operational aerosol multi-model ensemble: An update from the International Cooperative for Aerosol Prediction (ICAP)

Peng Xian, Jeffrey S. Reid, Edward J. Hyer, Charles R. Sampson, Juli I. Rubin, Melanie Ades, Nicole Asencio, Sara Basart, Angela Benedetti, Partha S. Bhattacharjee, Malcolm E. Brooks, Peter R. Colarco, Arlindo M. da Silva, Tom F. Eck, Jonathan Guth, Oriol Jorba, Rostislav Kouznetsov, Zak Kipling, Mikhail Sofiev, Carlos Perez Garcia-Pando, Yaswant Pradhan, Taichu Tanaka, Jun Wang, Douglas L. Westphal, Keiya Yumimoto, Jianglong Zhang

Version of Record online: 02 April 2019

International Cooperative for Aerosol Predictions (ICAP) model 550 nm total AOD RMSE of the 72 h forecast versus corresponding mean AODs for AERONET sites listed in Table 2. Large black dots are ICAP multi-model ensemble consensus means. Individual models are in small coloured dots. Validation of fine- and coarse-modal AODs and dust AOD is also available in Figure 2.

Convective initiation and storm life cycles in convection-permitting simulations of the Met Office Unified Model over South Africa

William J. Keat, Thorwald H. M. Stein, Elelwani Phaduli, Stephanie Landman, Erik Becker, Mary-Jane M. Bopape, Kirsty E. Hanley, Humphrey W. Lean, Stuart Webster

Version of Record online: 02 April 2019

Convective initiation is a challenge for convection-permitting models due to its sensitivity to sub-km processes. We evaluate the representation of convective storms and their initiation over South Africa during four summer months in Met Office Unified Model simulations. We find that the maximum number of modelled storm initiations occurs at least 2 hr prior to the radar-observed maximum. Analysis of soundings indicates little difference in the convective indices, suggesting that differences in convection may be attributed to the choice of subgrid mixing parameters.

Statistical post-processing of dual-resolution ensemble forecasts

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

Version of Record online: 02 April 2019

Statistical post-processing of dual-resolution temperature ensemble forecasts is investigated in order to test whether calibration changes the ranking of equal-cost dual-resolution configurations. Results show that score differences between various single- and dual-resolution configurations are strongly reduced by post-processing. Therefore, the benefit of some dual-resolution configurations over single-resolution configurations appears to be less pronounced than for raw ensemble forecasts.

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

Daisuke Hotta, Yoichiro Ota

Version of Record online: 02 April 2019

A new scheme is proposed to generate SST perturbations for use with an uncoupled medium-range EPS. The new scheme is simple, trivial to implement, but yet can produce perturbations (top) whose spatio-temporal characteristics faithfully reproduce those of the errors of the prescribed SST fields (bottom). The new scheme has been successfully implemented in the operational medium-range EPS suite at Japan Meteorological Agency.

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

Sebastian Egli, Boris Thies, Jörg Bendix

Version of Record online: 31 March 2019

Characteristic fog patterns are identified for Europe, and simultaneous occurrences of fog patterns and predominant general weather situations analyzed. Regional differences in diurnal and annual fog frequency cycles are identified and possible reasons for the spatial distributions discussed.

Circumventing the pole problem of reduced lat-lon grids with local schemes. Part II: Validation experiments

Michael R. Glinton, Pierre Bénard

Version of Record online: 31 March 2019

Zoom of the potential vorticity field map for the idealised case described in the text after 6 days of simulations with the GRASS model (longitude and latitudes in degrees)

Comparison of 4DVAR and EnKF state estimates and forecasts in the Gulf of Mexico

Ganesh Gopalakrishnan, Ibrahim Hoteit, Bruce D. Cornuelle, Daniel L. Rudnick

Version of Record online: 31 March 2019

The present work demonstrates a practical application of MITgcm-ECCO 4DVAR and MITgcm-DART EnKF assimilation methods for the GoM and compares them in a limited number of realizations. The overall conclusion showing improved short-term(long-term) predictability for EnKF (4DVAR) carries an important caveat that the results from this study are specific to a few 4DVAR and EnKF LC eddy separation experiments in the GoM and cannot be generalized to conclude the relative performance of both methods, especially in other applications. However, some of the concepts and methods should carry over to other applications.

Monitoring trends in ensemble forecast performance focusing on surface variables and high-impact events

Zied Ben Bouallègue, Linus Magnusson, Thomas Haiden, David S. Richardson

Version of Record online: 31 March 2019

Comparison of trends in IFS ensemble forecast performance for 24 hr precipitation using different probabilistic skill scores (rows) and different types of climatology definition (columns). The probabilistic skill scores are the Brier skill score (BSS), the logarithmic skill score (LSS), and the diagonal elementary skill score (DESS). The types of climatology definition are a long-term climatology (left), a sample climatology (middle), and an eigenclimatology (right). Results for high-impact events defined based on the 95th percentile of local climate distributions.

A mixed finite-element, finite-volume, semi-implicit discretization for atmospheric dynamics: Cartesian geometry

Thomas Melvin, Tommaso Benacchio, Ben Shipway, Nigel Wood, John Thuburn, Colin Cotter

Version of Record online: 31 March 2019

A simulation of a cold bubble of air as it falls to the ground, propagates along the surface and forms roll vortices. The flow is simulated using a new mixed finite-element, finite-volume semi-implicit model that evolved from the GungHo project and is being developed as a replacement dynamical core for the Met Office's Unified Model.

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.

Accelerating Radiative Transfer Calculations for High-Resolution Atmospheric Models

Howard W. Barker, Jiangnan Li

First Published: 06 April 2019

Extended Representation of Wind-Mass Correlation by Ensemble Forecasting for Data Assimilation

Hyo-Jong Song

First Published: 05 April 2019

Object-based verification metrics applied to the evaluation and weighting of convective-scale precipitation forecasts

Laure Raynaud, Iseline Pechin, Philippe Arbogast, Lucie Rottner, Mayeul Destouches

First Published: 05 April 2019

Inference of stochastic parametrizations for model error treatment using nested ensemble Kalman filters

Guillermo Scheffler, Juan Ruiz, Manuel Pulido

First Published: 05 April 2019

Understanding the vertical structure of potential vorticity in tropical depressions

Varun S. Murthy, William R. Boos

First Published: 02 April 2019

A Case Study of Land-Atmosphere Coupling During Monsoon Onset in Northern India

Emma J. Barton, Christopher M. Taylor, Douglas J. Parker, Andrew G. Turner, Danijel Belusic, Steven J. Böing, Jennifer K. Brooke, R. Chawn Harlow, Phil. P. Harris, Kieran Hunt, A. Jayakumar, Ashis S. Mitra

First Published: 02 April 2019

Modelling spatially correlated observation errors in variational data assimilation using a diffusion operator on an unstructured mesh

O. Guillet, A. T. Weaver, X. Vasseur, Y. Michel, S. Gratton, S. Gürol

First Published: 01 April 2019

Nonlinear latitudinal transfer of wave activity in the winter stratosphere

R. K. Scott

First Published: 01 April 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.

April 16, 2019

News

Philippines improving climate forecasting for farmers and fisherfolk

April 16, 2019 - ReliefWeb

Climate related disasters in the Philippines are becoming increasingly devastating for the agricultural sector. Between 2006 and 2013, a total of 78 natural hazards, in the form of extreme weather, damaged over six million hectares of crops, valued at USD 3.8 billion.

Read MORE

Predictability limit: Scientists find bounds of weather forecasting

April 15, 2019 - ScienceDaily

In the future, weather forecasts that provide storm warnings and help us plan our daily lives could come up to five days sooner before reaching the limits of numerical weather prediction, scientists said.

Read MORE

What's Causing the Wild Weather in the Midwest?

April 12, 2019 - Pacific Standard

So-called "big weather" events in the central U.S. all have their roots in the area's geography.

[Read MORE](#)

[Boulder researcher helps track climate change perceptions via Twitter](#)

April 14, 2019 - Boulder DailyCamera.com

It seems that just about everyone likes to talk about the weather. And since Twitter is where so much modern "conversation" takes place, scientists including a researcher from Boulder's National Center for Atmospheric Research went to social media to examine our perceptions of climate change.

[Read MORE](#)

[The uneven burden of air pollution](#)

April 13, 2019 - The Week Magazine

The study, which combined air pollution exposure data and mortality data to model the risk of death, found that tiny particles of pollution known as PM 2.5, kicked up into the atmosphere mainly by the burning of fossil fuels and biomass, agriculture, and industrial operations, are responsible for 8.79 million early deaths every year — some 1.5 million more deaths per year than tobacco.

[Read MORE](#)

[Thunderstorms on the other side of the globe trigger heat waves in California](#)

April 12, 2019 - UPI.com

The stronger the storms moving across Southeast Asia, the more intense the heatwaves in the Golden State.

[Read MORE](#)

[The heart of Dixie Alley: Why Alabama tornadoes are the deadliest in the nation](#)

April 12, 2019 - Montgomery Advertiser

During the past few decades, meteorologists have begun calling the South "Dixie Alley," an ignominious moniker that again entered the public consciousness last year when a study by Northern Illinois University professor Victor Gensini showed that tornadoes are occurring more

frequently in the Southeast — Louisiana, Mississippi, Alabama, Tennessee and Georgia — than the Midwestern states historically known as Tornado Alley.

[Read MORE](#)

[Natural disasters slam Americans with long-term financial impacts](#)

April 11, 2019 - CBS News

Residents affected by a disaster often see a decline in their credit scores, are more liable to fall behind on their bills and generally experience a cascade of financial consequences, including bankruptcy and homelessness, according to new analysis from the Urban Institute.

[Read MORE](#)

[You might not have noticed, but about 25 meteotsunamis hit the East Coast each year](#)

April 11, 2019 - NOAA

Driven by severe weather, these waves exacerbate flooding, erosion and can cause injury.

[Read MORE](#)

[Fountains of Plasma Rain Might Explain One of the Biggest Mysteries of the Sun](#)

April 11, 2019 - LiveScience

Today's weather forecast on the sun calls for a high of 10,000 degrees Fahrenheit (5,500 degrees Celsius), constant supersonic wind, mysterious eruptions of giant lava-lamp-blobs and, oh yes, light rain. So, you know, pack an umbrella.

[Read MORE](#)

[Minnesota's pristine snow has turned the color of dirt. It can thank Texas.](#)

April 11, 2019 - The Washington Post

The intense storm roaring through the central United States has generated every type of weather imaginable, from extreme heat to severe thunderstorms to a historic blizzard.

[Read MORE](#)

[Who killed the fog? UC Berkeley cracks the case](#)

April 10, 2019 - The Mercury News

Tule fog – a thick, white, low-to-the-ground veil of condensation that shrouds the valley on winter mornings – has been slowly vanishing over the past three decades.

[Read MORE](#)

[National Weather Service Has Concerns Over President's Budget](#)

April 10, 2019 - Oklahoma's Own

As we head into severe weather season, some proposed budget cuts to the National Weather Service are raising concerns. Those cut have been outlined in President Trump's budget for 2020, and meteorologists in Oklahoma have not been shy about raising the alarm.

[Read MORE](#)

[New model accurately predicts harmful space weather](#)

April 9, 2019 - EurekAlert!

A new, first-of-its-kind space weather model reliably predicts space storms of high-energy particles that are harmful to many satellites and spacecraft orbiting in the Earth's outer radiation belt.

[Read MORE](#)

[Grad students gain research edge with aid from meteorology professor emeritus](#)

April 10, 2019 - Penn State University

For anyone, a trip to Argentina would have been exciting. But for Rachel Gutierrez, who's long been fascinated by severe weather such as hail and thunderstorms, it represents the holy grail of her research interests.

[Read MORE](#)

[The Good, Bad, And Ugly Of Weather Messaging For The Masters](#)

April 14, 2019 - Forbes

The decisions made by the Masters and its on-site meteorologists are perfect examples of what the American Meteorological Society (AMS) had in mind when it issued guidance on outdoor venues, sporting events, and weather.

[Read MORE](#)

Nepali Scientists Record Country's First Tornado

April 16, 2019 - Nature

The team confirmed the rare event using satellite images, social-media posts, and a visit to the affected area.

Read MORE

English a Challenge for Many Weather Scientists: Study

April 16, 2019 - The Times of India

A study published in the Bulletin of the American Meteorological Society revealed that many weather and climate scientists in India experienced difficulties in presenting their research in English.

Read MORE

Thunderstorms Kicked a Wall of Pollen into the Air. A Drone Captured These Images of the Yellow Haze.

April 16, 2019 - The Washington Post

The images look like they were taken through a yellow filter—but they weren't. Instead, a golden haze had descended on the city of Durham, N.C.

Read MORE

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My latest WeatherEye from John Maunder

<https://www.sunlive.co.nz/blogs/13223-wmo-day-march-23-2019.html>

Thanks to our regular contributors.