

The Meteorological Society of New Zealand



New Zealand weather and climate news

Courtesy of MetService

MetService focus

Radio NZ Nights: AUDIO 23' 26" MetService Meteorologist Eric Brenstrum is back for another look at world weather. On the anniversary he takes a look at the impact the weather had on the D-Day landings; he reflects on recent global weather events; and on the eve of his retirement, he discusses his career at MetService.

<https://goo.gl/XBPbeZ>

Desert Road, Lewis Pass closed by snow early Thursday

Some heavy rain was still falling in the eastern North Island early Thursday, so there was a chance of more snow on the Napier-Taupō Road early, MetService forecaster Nick Zacher said.

<https://www.stuff.co.nz/national/104518270/desert-road-lewis-pass-closed-by-snow-early-thursday>

Snow causes disruptions in the south, as wintry chill spreads northwards

MetService meteorologist Nick Zacher had warned the cold would move north.

<https://www.stuff.co.nz/national/104485902/snow-to-low-levels-in-south-warnings-for-lower-north-island-high-roads>

Cold conditions to persist in South Canterbury

MetService meteorologist Kyle Lee said temperatures are likely to remain low in the coming days.

"It does look like it's going to be pretty cold for the next couple of mornings ... at least for the working week it will be quite cold."

<https://www.stuff.co.nz/timaru-herald/news/104491495/cold-conditions-to-persist-in-south-canterbury>

Icy road warnings follow wintry blast

MetService meteorologist Kyle Lee said another front was expected to pass over the South Island tonight, but it was not expected to drop any heavy snow below 600m.

<https://www.odt.co.nz/news/dunedin/icy-road-warnings-follow-wintry-blast>

Cold snap forecast to dump snow on Napier-Taupo Rd

MetService meteorologist Lisa Murray said snow showers were expected between 3pm and 9pm on State Highway 5 between Napier and Taupo.

https://www.nzherald.co.nz/nz/news/article.cfm?c_id=1&objectid=12064726

Flooding shuts 61 bridges across Tolaga Bay

MetService lead forecaster Michael Martens said Auckland, Northland, Coromandel and Bay of Plenty - which also had a wet holiday weekend - also had between 25 and 60 millimetres of rain overnight.

<https://www.radionz.co.nz/news/national/358888/flooding-shuts-61-bridges-across-tolaga-bay>

Tolaga Bay cleanup could cost \$10m but who should pay?

Masses of forestry debris that flooded a small town north of Gisborne has created a \$10 million cleanup, but questions have been raised about who should pay.

Heavy rain caused water to flood through Tolaga Bay, crashing through homes when the Mangaheia River burst its banks on Monday.

<https://www.stuff.co.nz/national/104486938/tolaga-bay-to-be-hit-by-more-rain-after-severe-flooding>

MetService warns another weather system is set to cause problems for the country

The wild weather that battered the North Island, flooded bridges and plagued returning holidaymakers is set to

continue on Tuesday, while snow and severe gales could worry commuters in the deep south.

<https://www.stuff.co.nz/national/104455288/metservice-warns-another-weather-system-is-set-to-cause-problems-for-the-country>

Volcano alert

Mt Ruapehu crater lake warming up, rise in volcanic tremor

The temperature of Crater Lake at Mt Ruapehu is rising, and there is an increase in volcanic tremor in the area. GeoNet said the activity was "consistent with minor volcanic unrest behaviour".

<https://www.stuff.co.nz/national/104493902/mt-ruapehu-crater-lake-warming-up-rise-in-volcanic-tremor>

MetOcean

Ocean Science

Ocean Science (OS) is an international open-access scientific journal dedicated to the publication and discussion of research articles, short communications, and review papers on all aspects of ocean science: experimental, theoretical, and laboratory. The primary objective is to publish a very high-quality scientific journal with free Internet-based access for researchers and other interested people throughout the world.

<https://www.ocean-science.net/>

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

AMT Discussions

Polar mesospheric clouds observed by Himawari-8 by Takuo T. Tsuda, Yuta Hozumi, Kento Kawaura, Keisuke Hosokawa, Hidehiko Suzuki, and Takuji Nakamura <https://www.atmos-meas-tech-discuss.net/amt-2018-120/>
Short Summary: Polar mesospheric clouds (PMCs) or noctilucent clouds (NLCs) are the highest clouds in the Earth. In this paper, we introduce new PMC observations by Himawari-8, the Japanese Geostationary-Earth-Orbit (GEO) meteorological satellite, which was launched in October 2014.

Extreme weather (and other news) – Australia and Pacific

More bad weather heading to Fiji as a new cyclone is named (30 May)

Tropical Cyclone Keni hovers between Vanuatu and Fiji. Photo: Fiji Met Service

The tropical depression that's been hovering between Vanuatu and Fiji over the weekend has developed into a Tropical Cyclone.

<https://fisherbusinessnews.com/2018/05/30/more-bad-weather-heading-to-fiji-as-a-new-cyclone-is-named/>

Australian National University Climate Change Institute data on Bathurst

BATHURST has been one of the hardest hit locations in Australia in terms of temperature rise.

When comparing last year's average Bathurst temperature to the city's 30-year long term median, there was an increase of 2.4 degrees.

<https://www.westernadvocate.com.au/story/5437412/bathurst-ranks-third-in-australia-for-hotter-average-temperatures/>

Melbourne shivers through coldest start to winter in 36 years, Bureau of Meteorology says

Winter is meant to be cold, but Melburnians could be forgiven for finding it hard to get out of bed so far this season.

The city has recorded its coldest start to June since 1982, according to the Bureau of Meteorology (BoM)

<http://www.abc.net.au/news/2018-06-06/melbourne-shivers-through-coldest-start-to-winter-in-36-years/9840460>

Coastal erosion to worsen over next decade as storms wash WA beaches away

Western Australia could be hit with some of the worst flooding and coastal erosion it has ever seen in the next decade, as the tidal cycle combines with increased water levels caused by global warming.

<http://www.abc.net.au/news/2018-06-06/wa-set-for-more-coastal-erosion-as-climate-change-tides-ramp-up/9831400>

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

NiMet to establish weather station at every 100 square km

To boost accurate weather forecast in Nigeria, the Nigerian Meteorological Agency (NiMet) will establish

weather forecasting stations at every 100 square kilometre of the country.

NiMET's Director General, Prof. Abubakar Mashi, while signing a Memorandum of Understanding with Bayero University Kano (BUK) at the weekend in Abuja, noted that NiMET has instituted partnerships with tertiary institutions in Nigeria to increase the density of meteorological stations.

<https://www.today.ng/technology/science/nimet-establish-weather-station-100-square-119155>

WMO canvasses NiMet support for Sierra Leone

The World Meteorological Organisation (WMO), has called on the Nigerian Meteorological Agency (NiMet) to enhance its technical support for the Sierra Leonean Meteorological Agency to deliver efficient service.

<http://www.nan.ng/news/wmo-canvasses-nimet-support-for-sierra-leone/>

Hong Kong Observatory to consider issuing typhoon warning signal No 3 on Wednesday as tropical depression edges closer

Forecaster apologises for confusion on Tuesday morning after issuing No 1 standby signal for the first typhoon of year two hours earlier than intended

<http://www.scmp.com/news/hong-kong/community/article/2149276/hong-kong-observatory-jumps-gun-first-no-1-typhoon-signal>

Harsh weather anticipated across the nation this week

Khon Kaen – All parts of Thailand will see heavy rain this week with the Royal Irrigation Department (RID) ordering its offices to prepare accordingly, especially in light of a typhoon warning from the Meteorological Department in effect for both the Andaman Sea and the Gulf of Thailand.

<http://www.pattayamail.com/thailandnews/harsh-weather-anticipated-across-nation-week-212011>

Tropical depression to threaten Philippines with flooding downpours this week

A new tropical depression has emerged in the western Pacific Ocean, and areas from the Philippines to Japan are at risk.

The Philippine government declared that the tropical disturbance had become Tropical Depression Domeng on Tuesday; however, the Japan Meteorological Agency (JMA) has yet to officially name the system.

<https://www.accuweather.com/en/weather-news/budding-tropical-cyclone-to-threaten-philippines-with-flooding-downpours-this-week/70005144>

Northern India, Pakistan to endure deadly heat wave into June

Life-threatening heat is expected across northern India and Pakistan with no relief in sight.

A strong area of high pressure has taken control of the region, limiting any cooling thunderstorms and allowing temperatures to soar to the highest levels of the year in many locations.

<https://www.accuweather.com/en/weather-news/northern-india-pakistan-to-endure-deadly-heat-wave-into-june/70005016>

With more than 300 killed due to thunderstorms in May, government to set up research group

This year, India has seen more than its fair share of strong thunderstorms. In the month of May alone, three spells of intense thunderstorm activity have left 300 people dead

<https://www.hindustantimes.com/india-news/with-more-than-300-killed-due-to-thunderstorms-in-may-government-to-set-up-research-group/story-1yktQzSYWTfuA29AorTtSM.html>

Extreme weather (and other news) – Americas and Europe

Aletta becomes eastern Pacific's 1st tropical storm of season

The first tropical storm of the 2018 East Pacific hurricane season developed south of Mexico on Wednesday morning.

<https://www.accuweather.com/en/weather-news/first-tropical-storm-in-eastern-pacific-expected-south-of-mexico-this-week/70005120>

International news and research

Why You Should Pay Attention to the National Weather Service

The Colorado offices of the National Weather Service provide intel that helps prevent serious problems across the state.

<http://www.5280.com/2018/05/why-you-should-pay-attention-to-the-national-weather-service/>

National Weather Service experiences significant data outage as Alberto targets US Gulf Coast

Prior to Alberto moving into the Florida Panhandle on Memorial Day, a prolonged outage in data from the National Weather Service (NWS) prevented meteorologists from using key weather forecasting tools.

<https://www.accuweather.com/en/weather-news/national-weather-service-experiences-significant-data-outage-as-alberto-targets-us-gulf-coast/70005061>

Hotter years 'mean lower exam results'

In years with hotter weather pupils are likely to perform less well in exams, says a major study from researchers at Harvard and other US universities.

<http://www.bbc.com/news/business-44288982>

Beer coasters show outback town has the highest rising temperature in Australia

A website which uses downloadable beer coasters to highlight the rising temperatures in Australia, shows towns in outback Queensland and the southern inland have taken the top spots.

<http://www.abc.net.au/news/2018-05-31/beer-coasters-highlight-hottest-locations/9817564>

AMT

Design, construction and commissioning of the Braunschweig Icing Wind Tunnel by Stephan E. Bansmer, Arne Baumert, Stephan Sattler, Inken Knop, Delphine Leroy, Alfons Schwarzenboeck, Tina Jurkat-Witschas, Christiane Voigt, Hugo Pervier, and Biagio Esposito <https://www.atmos-meas-tech.net/11/3221/2018/>
Short Summary: Snow, frost formation and ice cubes in our drinks are part of our daily life. But what about our technical innovations like aviation, electrical power transmission and wind-energy production, can they cope with icing? Icing Wind Tunnels are an ideal laboratory environment to answer that question. In this paper, we show how the icing wind tunnel in Braunschweig (Germany) was built and how we can use it for engineering and climate research.

The key triggers of the costly 2017 wildfire season

New research shows that three major 'switches' affecting wildfire -- fuel, aridity, and ignition -- were either flipped on and/or kept on longer than expected last year, triggering one of the largest and costliest US wildfire seasons in recent decades.

<https://www.sciencedaily.com/releases/2018/06/180605103439.htm>

Cyclones slowing and intensifying - new research

Tropical cyclones are slowing down and dumping more rain on places they hit as a result of climate change. The research, published today in the journal Nature, measured cyclones from 1949 to 2016 and found that the speed at which they move has slowed by 10 percent.

<http://www.radionz.co.nz/international/pacific-news/359049/cyclones-slowing-and-intensifying-new-research>

Eye-Catching Climatology: Examining Hurricane Eye Location and Size

Tropical cyclones are one of the most dangerous weather events on Earth, but at their core lies a paradox—an area of clear skies and calm winds called the eye. The eye is surrounded by an eyewall, which is composed of towering clouds, intense severe weather, and the storm's strongest winds. The more defined a cyclone's eye and eyewall, the greater the intensity of the storm. So, determining when, where, and how often eyes occur is imperative for understanding how these storms are changing over time.

<http://www.weathernationtv.com/news/eye-catching-climatology-examining-hurricane-eye-location-size/>

NOAA's New Weather Satellite Delivers Amazing First Images Despite Defect

Until last year, the National Oceanic and Atmospheric Administration's (NOAA) was making do with some fairly ancient weather satellites. The 1990s era hardware wasn't up to the task of gathering the data scientists want, but the agency deployed the first of its new generation GOES-R satellites in 2016. Earlier this year, a second GOES satellite went into orbit. It has just sent back its first stunning images of Earth, but there are some glitches that keep the system from working at full capacity.

<https://www.extremetech.com/extreme/270475-noaa-goes-17-weather-satellite-delivers-amazing-first-images-despite-defect>

The Strange Things Meteorologists and Engineers See While Maintaining Weather Instruments

The following is a collection of notable and strange photos and stories we've seen over the past several years provided by local National Weather Service offices, state mesonetworks, NWS cooperative observers and [CoCoRaHS](#), a non-profit network of volunteer weather observers.

<https://www.wunderground.com/news/2018-06-04-strange-things-weather-instrument-maintenance>

Storm's coming: New technique for simulation of extreme weather events

Scientists have developed a new method for generating data for ensemble simulation of extreme weather phenomena. He tested the method in simulation of a typhoon and a global warming simulation, and successfully created the necessary range of data in each case. The method has high computational stability and can be applied to any type of extreme weather event or other types of problems such as land cover change.

<https://www.sciencedaily.com/releases/2018/06/180604112451.htm>

Superensemble hurricane model hailed as 'one of FSU's greatest contributions to science'

The Father of Modern Tropical Meteorology died in February, but his forecasting model lives on

<https://www.tallahassee.com/story/news/hurricane/2018/06/04/forecasting-model-created-florida-state-critical-tool-national-hurricane-center/661956002/>

Business development / commodities / infrastructure etc

Rising insurance premiums to hit councils' pockets

Local councils around the country are facing insurance hikes of millions of dollars as earthquake risks and the effects of climate change start to hit the back pocket.

<http://www.radionz.co.nz/news/national/359043/rising-insurance-premiums-to-hit-councils-pockets>

Aviation

Wellington weather too good for Airbus testing at airport

Wellington's weather is too mild today for tests to begin at the airport with one of the world's newest widebody planes.

https://www.nzherald.co.nz/nz/news/article.cfm?c_id=1&objectid=12064226

Nasa's flying observatory Sofia returns to Christchurch for more space gazing missions

Nasa's flying observatory has again landed in New Zealand for more winter missions gazing into space and unlocking further mysteries of the universe.

https://www.nzherald.co.nz/nz/news/article.cfm?c_id=1&objectid=12064183

Communications/social media

Risk Communication for Cyclone Early Warning – Do people get the message, and understand what it means for them?

Contributed by Bapon Fakhruddin, Senior DRR and Climate Resilience Specialist, [Tonkin+Taylor](#) & Co-chair of the Risk Interpretation and Application of [IRDR/ICSU](#)

Every year, New Zealand is impacted by ex-tropical cyclones (ETCs) – typically, one ETC makes landfall per year, between the months of November and April. As tropical cyclones approach New Zealand, they begin to lose their strength and undergo extratropical transition (ETT).

<https://hepex.irstea.fr/risk-communication-for-cyclone-early-warning/>

Opinion

Cloudy With a Chance of Online Rage: Why Meteorologists Have so Many Haters

Think you endure a lot of spite on Twitter? Try being a friendly neighborhood meteorologist.

Talking about the weather for a living opens weather reporters up to a stream of anger normally reserved for politics. It seems strange that the weather—of all things—would evoke such angry responses from people. “We are easy targets,” said Nick Lilja, chief meteorologist for WDAM-TV in Hattiesburg, Mississippi. “I don’t know that very many people do it with a specific malice toward meteorologists. I think they just aren’t happy and need to spray their hate at someone—and we are right there.”

<http://observer.com/2018/06/why-do-meteorologists-and-weather-reporters-receive-so-much-hate-mail/>

Lightning

Is climate change responsible for lightning-ignited fires?

Washington: Climate change is responsible for many disasters across the world. A new catastrophe can now be added to the list.

According to a study conducted by the Portland State University, fires ignited by lightning have and will likely continue to increase across the Mediterranean and temperate regions in the Southern Hemisphere under a warmer climate.

<https://www.siasat.com/news/climate-change-responsible-lightning-ignited-fires-1363246/>

Satellites and radar

Citation: Kremser, S., Tradowsky, J. S., Rust, H. W., and Bodeker, G. E.: Is it feasible to estimate radiosonde biases from interlaced measurements?, Atmos. Meas. Tech., 11, 3021-3029,

Abstract. Upper-air measurements of essential climate variables (ECVs), such as temperature, are crucial for climate monitoring and climate change detection. Because of the internal variability of the climate system, many decades of measurements are typically required to robustly detect any trend in the climate data record. It is imperative for the records to be temporally homogeneous over many decades to confidently estimate any trend. Historically, records of upper-air measurements were primarily made for short-term weather forecasts and as such are seldom suitable for studying long-term climate change as they lack the required continuity and homogeneity. Recognizing this, the Global Climate Observing System (GCOS) Reference Upper-Air Network (GRUAN) has been established to provide reference-quality measurements of climate variables, such as temperature, pressure, and humidity, together with well-characterized and traceable estimates of the measurement uncertainty. To ensure that GRUAN data products are suitable to detect climate change, a scientifically robust instrument replacement strategy must always be adopted whenever there is a change in instrumentation. By fully characterizing any systematic differences between the old and new measurement system a temporally homogeneous data series can be created. One strategy is to operate both the old and new instruments in tandem for some overlap period to characterize any inter-instrument biases. However, this strategy can be prohibitively expensive at measurement sites operated by national weather services or research institutes. An alternative strategy that has been proposed is to alternate between the old and new instruments, so-called interlacing, and then statistically derive the systematic biases between the two instruments. Here we investigate the feasibility of such an approach specifically for radiosondes, i.e. flying the old and new instruments on alternating days. Synthetic data sets are used to explore the applicability of this statistical approach to radiosonde change management.

<https://www.atmos-meas-tech.net/11/3021/2018/amt-11-3021-2018.pdf>

Transport/roading/shipping/freight

VIDEO: Australia launches investigation into Yang Min container spill

JUNE 5, 2018 — New South Wales, Australia, authorities were today continuing coastal clean-up efforts following the spill of 83 containers from a Yang Ming Marine Transport containership.

https://www.marinelog.com/index.php?option=com_k2&view=item&id=29390:video-australia-launches-investigation-into-yang-min-container-spill&Itemid=257

MarineTraffic and NAPA to develop joint services for improving fleet operational performance

Global ship tracking company MarineTraffic and maritime software, services and data analysis provider NAPA have agreed to collaborate in developing a set of new advanced new voyage planning, optimisation, and analysis services for the shipping industry.

<https://www.hellenicshippingnews.com/marinetraffic-and-napa-to-develop-joint-services-for-improving-fleet-operational-performance/>

Innovation and technologies (inc data and new products)

GPUs Power Performance Breakthrough on TempoQuest Weather Prediction Software

Today [TempoQuest](#) announced that it has achieved a breakthrough 700% acceleration of the weather community's Weather Research Forecast (WRF) model used extensively for real-time forecasting and weather research throughout the world.

<https://insidehpc.com/2018/05/gpus-power-performance-breakthrough-tempoquest-weather-prediction-software/>

Connecting weather stations simply and securely

Ardexa and the NSW DPI win Best Primary Industry Project at IoT Awards.

<https://www.iothub.com.au/news/connecting-weather-stations-simply-and-securely-492479>

Politics and govt

NZ economy forecast set to outpace most of OECD

The New Zealand economy is set to grow at a faster pace than most of the countries in the 35-strong OECD, with activity shifting from consumption to investment.

<https://www.radionz.co.nz/news/business/358672/nz-economy-forecast-set-to-outpace-most-of-oecd>

Climate change / global warming / sea level rise

Researchers shine a light on more accurate way to estimate climate change

By using satellite data from different major land-based ecosystems around the globe, researchers have found that the photosynthesis glow is the same across all vegetation, no matter the location. This first-of-its-kind global analysis could have significance in providing more accurate data for scientists working to model carbon cycle and eventually help better project climate change.

<https://www.sciencedaily.com/releases/2018/06/180605112113.htm>

DB, Les Mills, Phil Goff among call for climate action

More than 200 businesses, leaders and community groups have signed a letter backing the Government's fresh steps toward a zero-carbon 2050 - and compelling it to keep moving forward.

https://www.nzherald.co.nz/climate-change/news/article.cfm?c_id=26&objectid=12065403&ref=rss

Economic models significantly underestimate climate change risks

Policymakers are being misinformed by the results of economic models that underestimate the future risks of climate change impacts, according to a new article.

<https://www.sciencedaily.com/releases/2018/06/180603193616.htm>

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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](#).

[When and where did the drought occur severely in the Yellow River basin during the last 55 years?](#)

EurekAlert! - 06/4/2018

for the monitoring and early warning of drought in other areas. The research results enrich the study of drought in the YRB. The temporal

[Energy 202: National Weather Service makes dozens of hires as new hurricane season begins](#)

San Antonio Express-News - 06/4/2018

the hurricane supplemental to increase forecasting skills, observations, and weather research, which will be very important to the National

[Why does Ellicott City keep flooding? And what other local areas are at risk?](#)

WTOP.com - 06/4/2018

experts believe global climate change will increase the intensity of storms. "It amplified the problem of intense rainfall," he said. "The

[Scientists Debate Whether Superstorms Have Link to Global Warming](#)

NBC DFW - 06/2/2018

of Technology, some of the most advanced research on the effects of global warming on extreme weather is being done at their department of

[Why Experts Just Changed Their Minds About 2018 Hurricane Season Activity](#)

Forbes - 06/2/2018

spring several forecast groups or organizations issue forecasts about activity in forthcoming Atlantic hurricane season. This year many of

[What in the world are vog, laze and Pele's hair? A volcano glossary](#)

Visalia Times-Delta and Tulare Advance-Register - 06/1/2018

by gas and fine particle emissions from volcanoes, according to the American Meteorological Society.

Specifically, vog is produced when the

[Ocean Heatwaves Are Getting Longer and More Intense](#)

Smithsonian.com - 06/1/2018

If the past century is any indication, global warming may be contributing to less stable marine ecosystems

[NASA invested in cracking Earth's carbon puzzle](#)

Phys.org - 06/1/2018

It's a scientific conundrum with huge implications for our future: How will our planet react to the increasing levels of carbon dioxide in the atmosphere? That seemingly simple question is particularly tricky because carbon—an essential building block for life on Earth—does not stay in one place

[This Metal Can Convert Atmospheric CO2 Into Liquid Fuel](#)

Seeker.com - 06/1/2018

Scientists have found a way to use bismuth as a catalyst for the direct conversion of carbon dioxide.

[Rocks contribute massive amounts of nitrogen to the atmosphere](#)

Earth.com - 06/1/2018

[Hurricane forecasts are great — as long as the storms themselves behave](#)

The Washington Post - 06/1/2018

at WPLG-TV, Miami, and the Weather Channel. Hurricane forecasters and research scientists are justifiably proud of the decreasing errors in

[Five lessons of the extraordinary 2017 hurricane season](#)

AZFamily.com - 06/1/2018

project scientist with the National Center for Atmospheric Research's Mesoscale & Microscale Meteorology Laboratory. Florida has some of the

[Q&A: MIT's Jeremy Gregory on Building to Beat a Storm](#)

US News & World Report - 06/1/2018

In these particular areas that are continuously hit with hurricanes, rebuilding costs money with little time in between to construct or

[Life after Sandy: How New York is preparing for the next superstorm](#)

Yahoo! News - 06/1/2018

know exactly when things will strike but we're at a point where storms are more intense and the sea levels are rising. It's not just going

[Trust The Warnings: You Can't Always See A Tornado Before It Hits](#)

Forbes - 05/31/2018

right at the storm as it's producing the tornado. The rain hides the danger. The classic tornado pictures you've seen from storm chasers—a

[Cool weather can amplify attacks of tree-killing bark beetle](#)

ScienceDaily - 05/31/2018

to a more synchronized emergence of adults once the weather warms. The behavior detailed in the research raises the risk for pine forests

[Clouds are disappearing in Southern California, and we're not totally sure why](#)

Yahoo! News - 05/31/2018

change the properties of the local microclimate," Daniel Swain, a climate scientist at the University of California, Los Angeles's Institute

[Go deeper: Another hurricane will black out Puerto Rico again](#)

Axios - 05/31/2018

Puerto Rico's commissioner of public safety. Maria was the most intense such storm to hit the island in at least

80 years, but a weaker

[How Earth slows the solar wind to a gentle breeze](#)

ScienceDaily - 05/31/2018

NASA satellite data reveals electron-scale energy transformation at the leading edge of Earth's magnetic field

[Frozen Pluto has wind-blown dunes made of methane sand](#)

Ars Technica UK - 05/31/2018

This landscape is both familiar and deeply weird.

[Global Warming Boosts Risk of Lightning-Ignited Fires](#)

Geek.com - 05/31/2018

Lightning-induced fires are expected to escalate across the Mediterranean and regions in the Southern Hemisphere, thanks to global warming. A new study co-led by Portland State University found that climate change increases the risk of fires ignited by electrical discharge. Researchers examined

[Why it's time to study how rocket emissions change the atmosphere](#)

The Verge - 05/31/2018

Get the data now before the problem gets worse

[Stop Whatever You Are Doing and Look at These Images From NOAA's New Weather Satellite](#)

Earther - 05/31/2018

and imagery it sends back will be used to help improve forecasts for everything from hurricanes to wildfires. But in the meantime, we get to

[WMO and WHO tackle health impacts of pollution, extreme weather, climate change](#)

ReliefWeb - 05/31/2018

face of growing health impacts from extreme weather, climate change and air pollution, the World Meteorological Organization (WMO) and World

[From leaves to clouds—revealing how trees' emissions shape the air around us](#)

Phys.org - 05/31/2018

But the study found that these tiny particles can actually make storms in the Amazon more intense, clouds bigger, and rain more likely to

[Alberto: A Rare Breed of Inland Tropical Cyclone Now Over the Midwest](#)

Weather Underground - 05/30/2018

to that lake in 1968, according to Brian McNoldy, a research meteorologist at the University of Miami. Its track is highlighted below in

[NASA's Earth Science Division Plays A Critical Role In Understanding Climate Change](#)

CleanTechnica - 05/30/2018

map here is based on temperature from thousands of weather stations, ships, buoys and research outposts collected over more than a century.

[Hurricane Maria Contributed to Nearly 5,000 Deaths, Researchers Say](#)

Scientific American - 05/30/2018

mostly in Louisiana and Mississippi, according to National Weather Service data. The Harvard research did not rely on formal reviews of

[Rising sea demands that South Florida do more to address the threat | Opinion](#)

Sun Sentinel - 05/30/2018

eventually means that taxpayers will have to pay the hefty costs of cleaning up after hurricanes, flooding and erosion wreak havoc. Using

[Land-Cover Changes Likely Intensified Dust Bowl Drought](#)

USAgNet - 05/30/2018

by the National Science Foundation and published in the American Meteorological Society's Journal of Climate.

Hu authored the study with

[Ancient rain changes our view of Earth's climate](#)

Futurity.org - 05/30/2018

Chinese loess. China sees 50% drop in severe weather since 1960 The research appears in the journal
Additional coauthors are from the

Wall to protect Boston from flooding would cost up to \$12 billion to build

MassLive.com - 05/30/2018

can't be easily altered to reflect changes in either technology or climate change science, they said. Currently, the
gates on such barriers

India lightning strikes and winds kill 50

MSN.com - 05/30/2018

More than 100 people died in northern India on 4 May due to intense dust storms and heavy rains. Authorities at
the time said they were

Boulder researchers see stronger, wetter hurricanes in a warmer climate

The Denver Post - 05/29/2018

leveraged a large, new data set created by running NCAR's Weather Research and Forecasting model to
compare high-resolution computer

The Maryland Flooding Is a Warning: The Danger Is Rain, and We're Making It Worse

Slate - 05/29/2018

—home of Houston—have been made outside the FEMA flood plain, according to Brody's research, and the
rate was even higher after Hurricane

How Fast Are Glaciers Melting? Just Listen to Them

Scientific American - 05/29/2018

Underwater microphones can glean valuable data from the burbles and pops of thawing glaciers and icebergs

What a Study of Over 30 Years of Hurricane Eye Images Tells Us

Weather Underground - 05/29/2018

by NOAA scientist Ken Knapp and the Cooperative Institute for Meteorological Satellite Studies. To clear up any
potential confusion, the

If Americans Keep Ignoring Flood Risk, We Could Face a Housing-Market Crash

CityLab - 05/29/2018

the researchers surveyed were flood skeptics, rather than climate change skeptics—they believed the science,
and still didn't believe that

We rebuilt Ellicott City before, and we can do it again. Should we?

The Baltimore Sun - 05/29/2018

the region, hydrologists calculated that the chance of a recurrence of such an intense storm — more than 6
inches of rain in two hours — was

Dry tropical forest legumes are important for secondary forest regrowth

Phys.org - 05/29/2018

fix nitrogen, but also because of their high drought adaptation capacity, an international research team with
leading contributions ---

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