

New Zealand weather and climate news

MetService

Dunedin site still on MetService radar

Otago Daily Times

Negotiations are dragging on as the MetService seeks to secure a site for a long-awaited Dunedin rain radar. However, the national meteorological ...

Aucklanders set for rain and thunder on Friday commute

New Zealand Herald

"The front that marched through Wellington this morning, producing all that rain," said MetService forecaster Tui McInnes, "that's now sitting over the ...

El Nino has arrived in Hawke's Bay, heralding a dry, warm autumn

El Niño is upon us and a warmer than normal autumn is on the cards for Hawke's Bay.

Niwa meteorologist Ben Noll says, because of El Niño, there is a 60 per cent chance of temperatures being above average through autumn in Hawke's Bay and 35 to 40 per cent chance of below average rainfall.

Others

Rain and more changeable weather ahead as autumn approaches

Blue Skies Weather forecaster Tony Trewinnard said Friday's front was "probably the first of several such systems over the next few weeks", although there were no signs of any significant Tasman Sea storm brewing.

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

Agricultural damage caused by El Niño reaches P464 million

Rappler

MANILA, Philippines – Agricultural damage caused by the weak El Niño in the Pacific Ocean reached P464.27 million as of Monday, March 11, based ...

Worst Tropical Cyclone in a Decade May Strike Mozambique Friday

Bloomberg

The cyclone may strengthen to a Category 4 or even 5 level, which is the most severe, according to AccuWeather. A Category 4 storm occurring so far ...

Extreme weather (and other news) – Americas and Europe

[A “bomb cyclone” is bringing hurricane-force winds and blizzard to the Great Plains](#)

It’s highly unusual for the Plains to experience such a windy winter storm.

[Radar Technology Could Help Peru Prepare for Deadly Weather Events](#)

ECNmag.com

Due to intense rainfall powered by El Niño, Peru suffered flashfloods and mudslides a couple years ago, which greatly affected the country's people ...

[Storm Gareth to be the 1st of 3 windstorms to batter British Isles, northern Europe this week](#)

AccuWeather.com

The recent stormy weather pattern across northern and western Europe will continue this week as Storm Gareth ... Interactive Europe weather radar

International news and research

[These Scientists Are Pushing The Boundaries Of Weather Forecasting](#)

Gentside UK

These Scientists Are Pushing The Boundaries Of Weather Forecasting ... And if the technology continues to improve, it seems that, for now, two weeks ...

[Geneva to host leading global meteorological event in June](#)

International Environmental Technology

Meteorological Technology World Expo is firmly established as the world's largest meteorological exhibition and conference dedicated to showcasing ...

[University of Limerick to lead new €21m data science research training centre](#)

Limerick Leader

University of Limerick to lead new €21m data science research training centre ... insurance, manufacturing, pharmaceuticals, and weather forecasting.

Why the famous 'Tornado Alley' is on the move

The Weather Network

Wednesday, March 6th 2019, 2:34 pm - The world famous 'Tornado Alley' seems to be undergoing a major shift. Our experts look at where it's going, ...

Talking about the weather 'most typical British trait'

Experts want to tap into the British obsession with the weather for a citizen science project to upload historical data to help climate research.

Olga Ladyzhenskaya: 3 Innovations That Owe a Debt to Her Brilliance

Inverse

The ubiquitous weather graphics seen on TV or online are all powered using a series of fluid-dynamics equations, many of which were advanced by ...

Bad weather changes course of Indian Ocean exploration trip

Bad weather and high seas brought scientists on Wednesday to change the first stop of a unique mission to explore the depths of the Indian Ocean, one of the planet's last great unexplored frontiers.

Weather pioneer Robert FitzRoy's clouds of doom had silver lining

The Times

"This was the start of weather forecasting," Ed Hawkins, of Reading ... The forecasts that FitzRoy produced were sketchy but the weather data that he ...

Tornado or straight line winds? How meteorologists tell the difference

KATV

LITTLE ROCK (KATV) — How do meteorologists determine if damage was caused by straight-line winds or a tornado? Channel 7 meteorologist Todd ...

How accurate is wind chill?

Globalnews.ca

When preparing for winter weather, most Canadians pay attention to the wind chill. But meteorologists say that “feels like” measurement is just a myth.

ECMWF

The obstacles women face in science – four ECMWF scientists talk

ECMWF

On the occasion of International Women's Day 2019, we brought together four ECMWF scientists to talk about why there are so few women in science.

WMO

WMO marks International Women’s Day

The theme of International Women’s Day on 8th March, is “Think equal, build smart, innovate for change”. Increased investment in women is among the main strategies for implementing the WMO Gender...

Air quality / air pollution

Air pollution causes 8.8 million extra early deaths a year

Posted: 12 Mar 2019 04:59 AM PDT

Air pollution could be causing double the number of extra deaths a year in Europe than has been estimated previously, according to a new study.

Coal power stations disrupt rainfall: Global study

Posted: 12 Mar 2019 04:59 AM PDT

Modern coal-fired power stations produce more ultrafine dust particles than road traffic and can even modify and redistribute rainfall patterns, a new 15-year international study shows. The study indicates filtration systems on modern coal-fired power stations are the biggest source of ultrafine particles and can have considerable impacts on climate in several ways.

Aviation

Boeing acquires ForeFlight

AOPA Pilot

ForeFlight was founded in 2007 when general aviation pilots Tyson Weihs and Jason Miller developed a weather planning service for the first ...

How Air Force meteorologist keep airmen safe during flight

KAUZ

WICHITA FALLS, TX (TNN) - Staff Sargent Benjamin Hawk, Tower Watch Supervisor talked about what the weather center communicates with the ...

Business/Insurance

How Changing Climate is Changing the Construction Industry

ForConstructionPros.com

Indirectly, the use of technology contributes to the reclaiming of the operating margin otherwise lost to the extreme weather conditions. However, more ...

The top four problems with doing business in Auckland

New Zealand's business unfriendly city

March is the month of traffic gridlock in Auckland and is one more reminder that the barriers and frustrations to doing business in New Zealand's biggest city are mounting up and show no sign of easing.

Communications/social media

Thai firm wins \$4.83m contract to install communications system

The Kathmandu Post

Aeronautical Radio of Thailand, a state enterprise under Thailand's Ministry of Transport, quoted the lowest price among the ... with an Instrument Landing System which allows approach and landing even in poor weather conditions.

Energy and Mining

Good news! Europe's electric grid will still work even as the world crumbles

Science Daily

In order to compare how a European weather-dependent electrical grid ... "Most other energy system studies assume a number of technologies and ...

Increase in wind-power projects fueling anemometer demands

Windpower Engineering (press release)

Tracking air pressure and weather conditions are some of the significant applications of anemometers that are driving the anemometer market, ...

National Grid takes £170m leap into US renewables

Telegraph.co.uk

It has invested in six energy start-ups working on smart energy grids, solar power systems and next-generation weather forecasting technologies, ...

Extreme weather in 2018 brought highest US electricity generation since 2007

Daily Energy Insider

Extreme weather led to the highest electricity demand in the United States in more than a decade, culminating in a record 4,178 million megawatt ...

Farming/horticulture/Aquaculture

New Zealand's big dry starting to hit farmers

New Zealand Herald

Dry weather throughout much of country is having an impact on farmers, ... The co-op had been forecasting a 3 per increase over last year but it's ...

Health

Climate Change: Heat-induced heart attack risk on the rise

Heart attack, or myocardial infarction, is the number one cause of death worldwide. A new study shows that the risk of suffering a heat-induced heart attack has increased significantly in recent years. During the same period of time, no comparable changes in cold weather heart attack risks have been recorded.

History

History's largest child sacrifice was a response to devastating weather, archaeologists say

Washington Post

An unusual layer of thick mud, a sign of an extreme El Nino event, covered the burial pits. The children's bodies were buried on the skirt of a bluff that, ...

Lightning

Lightning kills more people than other weather extremes

CNBCTV18

Lightning detectors ... In Andhra Pradesh, where the lightning detection and early warning system is at work, Illiyas mentioned alerts are issued ...

Satellites and radar

NOAA Celebrates Weather Satellite Removal From GAO's High Risk List

Nextgov

The National Oceanic and Atmospheric Administration successfully navigated a major challenge to one of its weather satellite systems that could have ...

Transport/roading/shipping/freight

Port growth to level off over next decade

Volume growth will continue for ports throughout the world but at a more modest pace over the next 10 years, according to a new Fitch Ratings report.

Innovation and technologies (inc data and new products)

Weather of Things (WoT): How Things can Predict Floods

PRNewswire (press release)

ClimaCell puts traditional weather forecasting on the spot with new microweather information. ClimaCell is proud to help the world outsmart weather ...

How Europe is using technology to fight wildfires

Portugal Startups (press release) (blog)

Which technologies could reduce the risk to human life? ... Dubbed 'freakishly warm' and 'unusual' by Bloomberg, the weather shift is anticipated to ...

Experiment picker

Do you want to test your business idea to see whether it's in good shape to launch to market? This quiz will test how ready you are and whether you've checked off everything Board of Innovation considers necessary before getting it out there.

Advancing Technology in Weather Data and Forecasting

CropLife

The drive to gather valid weather data and best react to the quirks and ... Taylor points out that the many top weather forecasting systems are audited ...

Space weather

Government to pump millions into space research

ITV News

Below: Why studying space weather is important space missions are brilliant examples of the UK's space industry's innovation and expertise.

Researchers uncover additional evidence for massive solar storms

Posted: 11 Mar 2019 12:27 PM PDT

Solar storms can be far more powerful than previously thought. A new study has found evidence for the third known case of a massive solar storm in historical times. The researchers believe that society might not be sufficiently prepared if a similar event were to happen now.

El Nino / La Nina

The El Niño-Southern Oscillation has strengthened – what does it mean?

Lowvelder

The El Niño-Southern Oscillation (ENSO) has strengthened marginally towards an El Niño phase over the last month. As before it is still predicted to ...

Climate change / global warming / sea level rise

Victoria University professor wins \$100,000 prize for climate-change work

A Wellington professor studying climate change has won the 2018 Prime Minister's Science Communication Prize.

Victoria University of Wellington's professor James Renwick was awarded the \$100,000 prize from the Prime Minister at an event in the capital today.

James Renwick: Dauntless hope in the face of a climate catastrophe

A top honour from Prime Minister Jacinda Ardern is overdue acknowledgement of Professor James Renwick's long contribution to climate change awareness, writes science reporter Jamie Morton.

NZ an 'innovation lab' for climate change

Scoop.co.nz

New Zealand has the opportunity to be a climate change “innovation lab” for ... Extreme weather events, failure of climate change mitigation/adaptation ...

David Wallace-Wells: Inaction on climate change will turn Earth into 'a hell'

The author of a new book on climate change says if people don't mobilise to tackle the issue immediately, the planet will face untold disasters, wars, droughts and famines.

Australia's climate change policies at the Australian and state and territory government levels: a stocktake

8 Mar 2019

Climate Change Authority

Climate Change Authority

This paper provides an overview of climate change policies at the Australian and state and territory government levels. It considers both cross-cutting and sector specific policies and targets and outlines Australia's emissions by source and by state and territory. The paper also discusses climate change adaptation policies and Australia's contributions to international climate change mitigation and adaptation efforts.

<https://apo.org.au/sites/default/files/resource-files/2019/03/apo-nid224211-1337396.pdf>

What do women think about climate change?

Summary of a survey of 6500 women by the Australian Conservation Foundation and 1 Million Women

8 Feb 2019

Australian Conservation Foundation, 1 Million Women

Australian Conservation Foundation

1 Million Women

In developing countries an unfair distribution of roles, resources and power is the reason climate change impacts women more than men. Traditional roles as primary caregivers and providers of food and fuel make women more vulnerable to flooding, drought and other extreme weather events. United Nations research suggests 80 per cent of the people displaced by climate change are women and children.

The Australian Conservation Foundation and 1 Million Women joined forces to survey women across Australia. 1 Million Women sent the online survey to its supporters and ACF sent the survey to all of its female supporters (the first time ACF has reached out to women only). The survey was completed by 6514 women in September and October 2018.

This report summarises key findings from the survey.

The angriest summer

7 Mar 2019

Will Steffen, Annika Dean, Martin Rice, Greg Mullins

Climate Council of Australia

The Australian summer of 2018/19 was characterised by prolonged, continental-scale heatwaves, hot days, drought conditions in eastern Australia and bushfires throughout Australia, particularly in Queensland and Tasmania and parts of Western Australia, Victoria and New South Wales.

Bushfire seasons started much earlier, lasted longer, and burned in areas that would not be expected to burn, despite there not being an El Niño event. Heavy rainfall and flooding inundated northern Queensland in late January and early February.

Why the growing alarm over catastrophic climate change is justified

As students prepare to strike across the country, we talk to bestselling US reporter David Wallace-Wells, who says the planet's future depends on action driven by WWII-like fear and alarm.

Fatal horizon, driven by acidification, closes in on marine organisms in Southern Ocean

Posted: 11 Mar 2019 10:31 AM PDT

Marine microorganisms in the Southern Ocean may find themselves in a deadly vise grip by century's end as ocean acidification creates a shallower horizon for life.

Few pathways to an acceptable climate future without immediate action

Posted: 11 Mar 2019 09:53 AM PDT

A new comprehensive study of climate change has painted over 5 million pictures of humanity's potential future, and few foretell an Earth that has not severely warmed. But with immediate action and some luck, there are pathways to a tolerable climate future, according to a research team.

Cloud seeding / Geoengineering

South Korea And China Are Using Artificial Rain to 'Wash Away' Air Pollution

ScienceAlert

The idea is called cloud seeding: specific chemicals are released into the air, usually by planes, with the intention of encouraging water droplets to ...

Responding to rising seas: OECD country approaches to tackling coastal risks

6 Mar 2019

Organisation for Economic Co-operation and Development (OECD)

OECD Publishing

There is an urgent need to ensure that coastal areas are adapting to the impacts of climate change. Risks in these areas are projected to increase because of rising sea levels and development pressures.

This report reviews how OECD countries can use their national adaptation planning processes to respond to this challenge. Specifically, the report examines how countries approach shared costs and responsibilities for coastal risk management and how this

encourages or hinders risk-reduction behaviour by households, businesses and different levels of government.

The report outlines policy tools that national governments can use to encourage an efficient, effective and equitable response to ongoing coastal change. It is informed by new analysis on the future costs of sea-level rise, and the main findings from four case studies (Canada, Germany, New Zealand and the United Kingdom).

Professional interest

Sea Level Rise & New Zealand's Future

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

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

When: Thursday April 18th 12:30pm – 1:30pm

Where: Rutherford House lecture theatre 2 (RHLT2)

Register igps@vuw.ac.nz

[Ko Matariki e ārau ana | The gathering of Matariki series of talks](#)

Professor Rangi Matamua will share his detailed knowledge about Matariki and highlight connections between cultural knowledge and science in an upcoming 19-talk series in New Zealand and Australia.

[Arts + Climate Innovation Roadshow](#): 19 March, Palmerston North. A timely conversation about how the arts can contribute to how we adapt to climate impacts and shape our carbon neutral future in Aotearoa New Zealand.

[Redefining how we measure our world - series of talks](#): 21 March - 20 May, Nationwide locations. A series of public events to communicate the impacts of the changes to the

International System of Units (SI) coming into force on 20 May 2019 (World Metrology Day).

Odd spot

Minnesota Judge Issues Restraining Order Against Winter, Meteorologists

WCCO | CBS Minnesota

On Thursday, Hennepin County Judge Kevin Burke issued a restraining order against Old Man Winter, Mr. Snow and even Minnesota meteorologists ...

Journal and articles online

Weather

Early View

Online Version of Record before inclusion in an issue

The replacement of mercury thermometers in Stevenson screens

Ian Strangeways

Version of Record online: 27 February 2019

A traditional liquid-in-glass thermometer arrangement and its direct-replacement electronic thermometer system.

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.

Distinct impacts of the MJO and the NAO on cold wave amplitude in China

Mengxia Lyu, Zhiwei Wu, Xiaohui Shi, Min Wen

First Published: 28 February 2019

Synoptic flow interaction with valley cold air pools and effects on cold air pool persistence: influence of valley size and atmospheric stability

P. F. Sheridan

First Published: 28 February 2019

Estimates of Entrainment in Closed Cellular Marine Stratocumulus Clouds from the MAGIC Field Campaign

Virendra P. Ghate, David B. Mechem, Maria P. Cadeddu, Edwin W. Eloranta, Michael P. Jensen, Michele L. Nordeen, William L. Smith Jr

First Published: 25 February 2019

Assessment of GPM High Frequency Microwave Measurements with Radiative Transfer Simulation under Snowfall Conditions

Mengtao Yin, Guosheng Liu

First Published: 25 February 2019

Critical flux Richardson number for Kolmogorov turbulence enabled by TKE transport

Livia S. Freire, Marcelo Chamecki, Elie Bou-Zeid, Nelson L. Dias

First Published: 24 February 2019

Meteorological Applications

Accepted Articles

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

Can disaster events reporting be used to drive remote sensing applications? A Latin America Weather Index Insurance Case Study

Manuel Brahm, Daniel Vila PhD, Sofia Martinez Saenz, Daniel Osgood PhD

First Published: 09 March 2019

Windshear detection by Terminal Doppler Weather Radar during Tropical Cyclone Mujigae in 2015

Shuk Mei Tse, Masahiro Hagio, Yuji Maeda

First Published: 09 March 2019

Monthly Weather Review - Volume: 147, Number: 3 (March 2019)

ARTICLES

A 13-Year Global Climatology of Tropical Cyclone Warm-Core Structures from AIRS Data

Xiang Wang and Haiyan Jiang

Defining the Northeast Monsoon of India

Vasubandhu Misra and Amit Bhardwaj

An Alternative Bias Correction Scheme for CrIS Data Assimilation in a Regional Model

Xin Li, Xiaolei Zou, and Mingjian Zeng

The Representation of the South Pacific Convergence Zone in the Twentieth Century Reanalysis

Thomas Harvey, James A. Renwick, Andrew M. Lorrey, and Arona Ngari

Effects of Parameterized Boundary Layer Structure on Hurricane Rapid Intensification in Shear

Jun A. Zhang and Robert F. Rogers

High-Temporal Resolution Observations of the 27 May 2015 Canadian, Texas, Tornado Using the Atmospheric Imaging Radar

Casey B. Griffin, David J. Bodine, James M. Kurdzo, Andrew Mahre, and Robert D. Palmer

A Model Framework for Stochastic Representation of Uncertainties Associated with Physical Processes in NOAA's Next Generation Global Prediction System (NGGPS)

Lisa Bengtsson, Jian-Wen Bao, Philip Pegion, Cecile Penland, Sara Michelson, and Jeffrey Whitaker

Entraining CAPE for Better Assessment of Tornado Outbreak Potential in the Warm Sector of Extratropical Cyclones

Eigo Tochimoto, Kenta Sueki, and Hiroshi Niino

The Impact of the Amazon–Orinoco River Plume on Enthalpy Flux and Air–Sea Interaction within Caribbean Sea Tropical Cyclones

Johna E. Rudzin, Lynn K. Shay, and Benjamin Jaimes de la Cruz

Tropical Transition of Hurricane Chris (2012) over the North Atlantic Ocean: A Multiscale Investigation of Predictability

Michael Maier-Gerber, Michael Riemer, Andreas H. Fink, Peter Knippertz, Enrico Di Muzio, and Ron McTaggart-Cowan

Hybrid Mass Coordinate in WRF-ARW and Its Impact on Upper-Level Turbulence Forecasting

Sang-Hun Park, Joseph B. Klemp, and Jung-Hoon Kim

A Reduced-Space Ensemble Kalman Filter Approach for Flow-Dependent Integration of Radar Extrapolation Nowcasts and NWP Precipitation Ensembles

Daniele Nerini, Loris Foresti, Daniel Leuenberger, Sylvain Robert, and Urs Germann

Evaluation of the Impact of Horizontal Grid Spacing in Terra Incognita on Coupled Mesoscale–Microscale Simulations Using the WRF Framework

Raj K. Rai, Larry K. Berg, Branko Kosović, Sue Ellen Haupt, Jeffrey D. Mirocha, Brandon L. Ennis, and Caroline Draxl

Incorporation of the Rotor-Equivalent Wind Speed into the Weather Research and Forecasting Model’s Wind Farm Parameterization

Stephanie Redfern, Joseph B. Olson, Julie K. Lundquist, and Christopher T. M. Clack

Probabilistic Forecasting of Snowfall Amounts Using a Hybrid between a Parametric and an Analog Approach

Michael Scheuerer and Thomas M. Hamill

Ray Curvature on a Flat Earth for Computing Virtual WSR-88D Signatures of Simulated Supercell Storms

Robert Davies-Jones, Vincent T. Wood, and Mark A. Askelson

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Welcome to AMS News You Can Use.

March 12, 2019

News

Coal power stations disrupt rainfall: Global study

March 12, 2019 - ScienceDaily

Modern coal-fired power stations produce more ultrafine dust particles than road traffic and can even modify and redistribute rainfall patterns, a new 15-year international study shows.

Read MORE

On This Day: The 1993 Storm of the Century

March 12, 2019 - NOAA/NCEI

On March 12–14, 1993, a massive storm system bore down on nearly half of the U.S. population. America’s “Storm of the Century,” as it would become known, swept from the Deep South all the way up the East Coast.

Read MORE

Six Signs that El Niño Is Very Healthy Right Now

March 12, 2019 - Forbes

NOAA projected a 55% chance of El Niño persisting through spring. Here is what it all means.

Read MORE

Montana Just Endured One of the Nation's Most Exceptional Cold Spells on Record

March 12, 2019 - The Washington Post

Temperatures averaging 20 to 30 degrees below normal gripped huge areas in the state, as well as parts of the Dakotas. These places are normally cold, but this chill was unlike anything seen in the contiguous United States in decades, in intensity and duration.

[Read MORE](#)

[The dedicated 'flood watchers' of central Việt Nam](#)

March 10, 2019 - ReliefWeb

For generations, the people in this region have learnt to co-exist with the devastating floods every year, but to foretell when these disasters will occur to prevent loss of human life and minimise economic damage is the responsibility of hydro-meteorological observers, who have earned the title 'flood watchers'.

[Read MORE](#)

[Dixie Alley's deadly twisters are stirring up more attention](#)

March 10, 2019 - Gainesville.com

As the skies mustered their worst over the southeast last week, flocks of weather balloons from Texas to Tallahassee searched for signs of combustion in an atmosphere unhinged.

[Read MORE](#)

[Taking the world by storm](#)

March 9, 2019 - MIT News

Jordan Benjamin, a double major in physics and atmospheric science, studies the weather inside and out of the classroom.

[Read MORE](#)

[Improved Tornado Forecasting Doesn't Prevent All Deaths](#)

March 8, 2019 - Insurance Journal

Sometimes in forecasting tornadoes, you can get everything technically right, and yet it all goes horribly wrong. Three days before the killer Alabama tornado struck, government

severe-storm meteorologists cautioned that conditions could be ripe for twisters in the Southeast on Sunday.

[Read MORE](#)

[Critical weather data threatened by FCC 'spectrum' proposal, Commerce Dept. and NASA say](#)

March 8, 2019 - The Washington Post

The Federal Communications Commission has proposed policy that could jeopardize the collection of vital information for weather prediction, the heads of the Commerce Department and NASA say.

[Read MORE](#)

[OU Radar Program Builds Hi-Tech Radar](#)

March 7, 2019 - Oklahoma's Own

Researchers at the University of Oklahoma started building mobile radars a decade ago for weather research. Now, the technology has gotten so advanced, the newest radar under construction can do more than predict storms.

[Read MORE](#)

[Blazing trails and forecasting big storms -- it's all in a day's work for this TV meteorologist](#)

March 7, 2019 - AccuWeather.com

Cecily Tynan is a TV trailblazer in one of the biggest U.S. markets. When she came to Philadelphia in 1995, there were no women meteorologists forecasting the weather on any of the local TV stations.

[Read MORE](#)

[ESA's space weather mission to be protected against stormy sun](#)

March 6, 2019 - Phys.org

ESA is planning Earth's first dedicated space weather observatory to warn of potentially harmful turbulence in our parent star. Like a referee at a sports game, the Lagrange spacecraft will be able to observe both the sun and Earth as well as the space in between – but will itself be in the space weather line of fire.

[Read MORE](#)

[Are small satellites the solution for space weather monitoring?](#)

March 6, 2019 - SpaceNews

Many of the instruments the U.S. relies on to monitor solar flares, coronal mass ejections and other phenomena that pose a threat to satellites in orbit and technology on the ground are well beyond their anticipated life spans.

[Read MORE](#)

[India is home to 7 of world's top 10 most polluted cities](#)

March 5, 2019 - AccuWeather.com

A new report released on Tuesday ranks seven cities across India in its top 10 list of most polluted cities around the world.

[Read MORE](#)

[Research connects dots among ocean dynamics, drought and forests](#)

March 11, 2019 - ScienceDaily

This study found predictable, traceable connections between changes in how the Atlantic Ocean flowed and operated with centuries-long droughts and changes in forest makeup.

[Read MORE](#)

[What Does Climate Sound and Look Like?](#)

March 11, 2019 - American Geophysical Union

A new exhibit, called Sounding Climate, uses sound and images to represent modeled temperature, precipitation, sea ice and carbon dioxide data.

[Read MORE](#)

[Why California's droughts and floods will only get worse](#)

March 5, 2019 - Popular Science

The Golden State's had a harsh winter. Between October 1 and March 3, most California weather stations across the state were reporting greater-than-normal amounts of precipitation. And the state's snowpack has grown to be the fifth largest in 40 years, with up to 25 feet of powder in some places.

[Read MORE](#)

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Thanks to our regular contributors