

New Zealand weather and climate news

Clips below come courtesy of MetService Library:

MetService

Thunderstorms could bring hail, heavy rain to parts of New Zealand: MetService

Thunderstorms could bring hail to eastern parts of Otago, Marlborough and Canterbury, while there's a risk they could also hit parts of the North Island including Hawke's Bay, the Bay of Plenty and Taupō.

<https://www.stuff.co.nz/national/108523702/thunderstorms-could-bring-hail-heavy-rain-to-parts-of-new-zealand-metservice>

No flights coming in or out of New Plymouth due to fog

All flights have been grounded at New Plymouth airport until at least late morning.

Airport commercial manager Wayne Wooton confirmed said nothing would be coming in or out of New Plymouth due to the heavy fog and low visibility.

<https://www.stuff.co.nz/taranaki-daily-news/news/108439937/No-flights-coming-in-or-out-of-New-Plymouth-due-to-fog>

Hawke's Bay's summer arrives, temperature could hit 30C today

MetService meteorologist Gerrit Keyser said it would be a race between Napier and Christchurch for the hottest temperature in NZ on Thursday.

https://www.nzherald.co.nz/weather/news/article.cfm?c_id=10&objectid=12156517

Wild weather: State Highway 6 flooded, Hokitika lightning strikes, New Plymouth flights grounded

The MetService says Hokitika copped more than 800 lightning strikes in a 20-minute period this morning.

https://www.nzherald.co.nz/nz/news/article.cfm?c_id=1&objectid=12156641

Two new GNS Science projects win funding from the prestigious Marsden Fund
Research projects at GNS Science that will investigate rupture processes on the Alpine Fault and

the emission of greenhouse gases from volcanic areas in the North Island have won funding in this year's round of the prestigious Marsden Fund.

<http://www.scoop.co.nz/stories/SC1811/S00020/two-new-gns-science-projects-win-funding.htm>

Thunderstorm brings flooding in South Waikato

A quick and concentrated thunderstorm caused South Waikato residents to put calls into the fire and emergency services on Tuesday night.

Pūtāruru and Tokoroa were hit just before 8pm which caused flooding to various areas of the towns.

<https://www.stuff.co.nz/national/108580748/thunderstorm-brings-flooding-in-south-waikato>

Fears in Hawke's Bay that an El Niño summer could lead to loss of water access

Low river levels and a hot, dry summer on the cards has some in Hawke's Bay worried they will run out of water.

Bill Stevenson, who lives in Ongaonga, 20 kilometres west of Waipukurau, fears potential El Niño weather conditions could cause him and others to lose access to water.

<https://www.stuff.co.nz/business/farming/108416558/fears-in-hawkes-bay-that-an-el-nio-summer-could-lead-to-loss-of-water-access>

Highway bridge washed out, students stranded in mountain lodge as severe weather batters the West Coast

Heavy rain and wild winds left dozens of students stranded, highways closed and destroyed the approach to a bridge.

The approach to Goat Creek bridge, on State Highway 73 near Otira, was badly hit by flooding on Thursday.

<https://www.stuff.co.nz/national/108438126/hawkes-bay-could-hit-30c-pouring-rain-150kmh-winds-batter-other-areas>

Bad weather moves north after bringing snow, heavy rain and washouts to the South Island

A front which brought heavy rain and snow to much of the South Island is moving over the North Island but better weather is in its wake.

A key highway between Canterbury and the West Coast was closed after washing out in downpours on Thursday and Friday, and will remain closed over the weekend.

<https://www.stuff.co.nz/national/108471823/snow-joins-pouring-rain-severe-gales-as-spring-storm-pushes-north>

MetOcean

Deep Floats Reveal Complex Ocean Circulation Patterns

Acoustically tracked floats drift far below the ocean's surface, providing fresh discoveries about deep-sea currents. A new archive gathers decades' worth of float data into a central repository.

[Read more here](#)

Extreme weather (and other news) – Australia and Pacific

Melbourne weather: How winds from the north and west create 'change days'

Don't like the weather in Melbourne? Wait five minutes, so the saying goes.

It is a bit of a cliché, but it sometimes really does feel like Melburnians routinely experience four seasons in one day.

[Read more here](#)

El Nino Alert, drought watch in place for Tonga

An El Nino Alert and drought watch is in place for Tonga, with below average rainfall predicted for most of the country between November 2018 – January 2019 and continuing between February – April 2019 (table 1).

<https://matangitonga.to/2018/11/12/el-nino-alert-drought-watch-place-tonga>

Deluge and drought: Australia's water security in a changing climate

13 Nov 2018

[Will Steffen](#), [Rob Vertessy](#), [Annika Dean](#), [Lesley Hughes](#), [Hilary Bambrick](#), [Joelle Gergis](#), [Martin Rice](#)

[Climate Council of Australia](#)

The focus of this report is how climate change is influencing the water cycle globally as well as here in Australia. We describe the economic importance of the Australian water sector, the changes that are already occurring because of climate change, the health implications of these changes, the waterenergy nexus, and the impacts of changes in the water cycle on urban water supplies, agricultural productivity and natural ecosystems. We also examine global ‘hot spots’ where changes in the water cycle are already occurring, where slower, long-term changes could lead to high risks, and discuss the possible disruption of global food trade from droughts in critical regions.

<http://apo.org.au/system/files/202981/apo-nid202981-1047191.pdf>

International news and research

Warmer winter temperatures linked to increased crime

Milder winter weather increased regional crime rates in the United States over the past several decades, according to new research that suggests crime is related to temperature's effect on daily activities.

<https://www.sciencedaily.com/releases/2018/11/181113110411.htm>

The 19th-Century Origins of Climate Science

How politics and azaleas gave rise to a modern understanding of the environment

If you were to travel to the early 1800s and strike up a conversation with a European scientist about climate, they would begin by asking why you hadn't read your Aristotle. First sketched by the philosopher in his fourth-century B.C. treatise Meteorologica, the model that sprang from the ancient Greek concept of klima divided the hemispheres into three fixed climatic bands: polar cold, equatorial heat, and a zone of moderation in the middle.

<https://www.theatlantic.com/science/archive/2018/11/habsburg-empire-created-modern-climate-science/575068/>

The Air Force will monitor the weather with microwaves | MBDA starts MICA-NG development | Italy slows down its F-35 acquisition program

Ball Aerospace & Technologies is receiving extra funding to advance work on the Weather System Follow-on Microwave (WSF-M) program. Awarded by the Air Force the \$255 million

contract modification allows for the development and fabrication Weather System

Follow-on Microwave Space Vehicle 1. The WSF-M space vehicle will provide orbital monitoring of weather and environmental conditions in support of military operations. It uses a

passive microwave radiometer to measure the strength of electromagnetic radiation and is useful for weather and temperature mapping. Work will be performed in Boulder, Colorado and is expected to be completed by January 2023.

[Read more here](#)

Why A Late Hurricane Season Threat In The Atlantic Fizzled So Fast

It was only a two days ago [that I wrote a piece in Forbes highlighting the potential threat of a named tropical system](#) forming in the Atlantic and moving into Bahamas. At that time, the models and the National Hurricane Center were bullish on development. Chances for development over the 5-day period were as high as 90%. The National Hurricane Center Tropical Weather Outlook on the morning of November 11th even said,

<https://www.forbes.com/sites/marshallshepherd/2018/11/13/why-a-late-hurricane-season-threat-in-the-atlantic-fizzled-so-fast/#f9754a762b25>

Climate change already affecting hurricanes and tropical cyclones, research shows

You've probably heard people blame the devastating impacts of cyclones, hurricanes, or typhoons on climate change.

On the other hand there are those that dismiss any suggestion of a link, often pointing out that extreme weather is part of nature and has nothing to do with us.

<https://www.abc.net.au/news/science/2018-11-15/climate-change-tropical-cyclone-hurricanes-severity/10489622>

'New normal' ferocious winds whip up deadly California fires

Officials blame climate change for fueling record fires in California

<http://news.trust.org/item/20181111192108-7ljkz/>

GW4, THE MET OFFICE, AND CRAY POWER UP THE LARGEST ARM-BASED SUPERCOMPUTER IN EUROPE

Isambard supercomputer to be used for scientific research and building the next generation of computing technology in the exascale era.

<http://gw4.ac.uk/news/gw4-the-met-office-and-cray-power-up-the-largest-arm-based-supercomputer-in-europe/>

Remembering the Edmund Fitzgerald: How weather forecasting has evolved

MARQUETTE COUNTY, Mich. (WLUC) - Saturday, November 10 2018 is the 43rd anniversary of the wreck of the Edmund Fitzgerald.

The ship went down in 1975 just north of White Fish Bay.

A storm system that was undetected by radar systems in the 1970s was one of the main causes of the wreck and 29 sailors on board lost their lives.

<https://www.uppermichiganssource.com/content/news/Remembering-the-Edmund-Fitzgerald-How-weather-forecasting-has-evolved-500215461.html>

More Deaths From Cold Weather Than Hot Weather

In the United Kingdom, between forty thousand and fifty thousand more deaths occur during the winter months than in summer months

<https://canadafreepress.com/article/more-deaths-from-cold-weather-than-hot-weather>

Weather Model For Predicting Severe Storms Is Helping Fight California Wildfires

The wildfires in California have been utterly remarkable and equally destructive. Cal Fire reported on November 9th that the Camp Fire had surpassed 90,000 acres but was only 5 percent contained.

<https://www.forbes.com/sites/marshallshepherd/2018/11/10/weather-model-for-predicting-severe-storms-is-helping-fight-california-wildfires/>

Better “nowcasting” can reveal what weather is about to hit within 500 meters

The ability to forecast heavy rainfall in small areas could change the way urban planners manage flash floods—and potentially save lives.

<https://www.technologyreview.com/s/612398/better-nowcasting-can-reveal-what-weather-is-about-to-hit-within-500-meters/>

Florence and Michael might be retired from the Hurricane naming book

Meteorologists routinely retire names of severely devastating storms.

<https://www.popsci.com/hurricane-names-retirement>

WMO

Climate Scenarios CH2018: the warming continues - Federal Office of Meteorology and Climatology MeteoSwiss

Switzerland is becoming drier, hotter and less snowy, and will struggle with heavier rainfall in the future – these are the conclusions reached by climate researchers from MeteoSwiss and ETH Zurich. Today, they presented the Climate Scenarios CH2018 produced on behalf of the Federal Council. These form the basis for the climate change adaptation strategy of the federal government.

[Read more here](#)

The North Eurasia Climate Centre (NEACC) held the 15th Climate Forum on the seasonal forecasts of the CIS countries - Roshydromet

The 15th session of North Eurasia climate forum ([NEACOF-15](#)) was held in Moscow on October 6 to 8. It was conducted with the assistance of the Hydrometeorological Centre of Russia, the Main Geophysical Observatory named after A.I.Voeikov, the Institute of Global Climate and Ecology, Russian Institute of Hydrometeorological Information, Russian Research Institute of Agricultural Meteorology, the National Meteorological and Hydrological Services of the Commonwealth of Independent States (CIS) Countries.

[Read more here](#)

Advertising/promotion

Weather's Influence On Demand Determines Media Buying

Lawn and garden care is a seasonal business, especially in the Midwest where temperatures dipped to 5 degrees Monday morning. The team at Scotts Miracle-Gro has short windows to maximize its marketing budgets and campaigns.

<https://www.mediapost.com/publications/article/327930/weathers-influence-on-demand-determines-media-buy.html>

Aviation

Air New Zealand pinpoints the busiest day for flying this summer

Air New Zealand is warning passengers to be prepared for a summer flying squeeze.

It says it will carry more than six million customers between December 1 and the end of March next year.

https://www.nzherald.co.nz/business/news/article.cfm?c_id=3&objectid=12156606

Rocket Lab steps into spotlight with its first commercial rocket launch

Private commercial space launches are being developed by a slew of companies, but California-based Rocket Lab is endeavoring to move ahead of the competition. The company on Sunday, November 11 achieved a flawless launch from New Zealand's North Island in a debut commercial mission that successfully deployed a number of small satellites into orbit.

<https://www.digitaltrends.com/cool-tech/rocket-lab-steps-into-spotlight-with-its-first-commercial-rocket-launch/>

Rocket Lab puts seven satellites into orbit

Rocket Lab's first Electron commercial rocket was successfully launched into orbit from Mahia Peninsula yesterday.

The rocket, dubbed 'It's Business Time', took off from Mahia Peninsula at 4.50pm on Sunday.

<http://gisborneherald.co.nz/localnews/3768120-135/rocket-lab-puts-seven-satellites-into>

Focus: Peter Beck looks to Rocket Lab's future

Speaking with the NZ Herald's Chris Keall, Peter Beck talks about Rocket Lab's growth strategies, and explains why New Zealand will remain central to the company.

https://www.nzherald.co.nz/business-video/news/video.cfm?c_id=1503079&gal_cid=1503079&gallery_id=200640

Auckland airport tail-strike incident occurred after pilot not told of wind change

A Virgin Australia plane scraped its tail on an Auckland Airport runway because the first officer failed to communicate a change in wind speed to the pilot, a safety investigation has found.

<https://www.stuff.co.nz/travel/travel-troubles/108455802/auckland-airport-tailstrike-incident-occurred-after-pilot-not-told-of-wind-change>

Energy and Mining

Not only when the wind blows: How data centres can manage their energy, whatever the weather

Almost every nation in the world is slowly but surely turning to the concept of green energy. Even the United States, with its recent policy reversals, remains one of the largest providers of renewable energy in the world.

<https://www.energy-storage.news/blogs/not-only-when-the-wind-blows-how-data-centres-can-manage-their-energy-whate>

New blockchain tech to accelerate demand response participation

Experts Develop New Blockchain Technology to Give Consumers More Control over their Energy Usage DELTA, a European Union research and innovation project, is showcasing its main technology breakthroughs at European Utility Week currently taking place in Vienna.

https://www.smart-energy.com/industry-sectors/data_analytics/new-blockchain-tech-to-accelerate-demand-response-participation/

Power outages will get worse - and undergrounding not the answer, Vector head says

Departing Vector chairman Michael Stiassny offered a bleak prediction at his company's annual meeting in Auckland.

"Climate change is here and it is affecting the way storms and weather impacts on our systems," he told shareholders.

https://www.nzherald.co.nz/business/news/article.cfm?c_id=3&objectid=12159415

Australia to head huge electricity and internet project in PNG

Australia will lead a new multi-billion-dollar electricity and internet rollout in Papua New Guinea.

The Australian newspaper reported New Zealand the US, Japan and South Korea are supporting the project, which will be PNG's largest ever development investment.

<https://www.radionz.co.nz/international/pacific-news/375919/australia-to-head-huge-electricity-and-internet-project-in-png>

Lightning

SaferMe Launches Weather Halo Mobile App

According to latest figures, the earth's surface experiences an average of 45 lightning strikes per second. In peak times, this figure can be as high as four hundred per second. According to latest figures, the earth's surface experiences an average of 45 lightning strikes per second. In peak times, this figure can be as high as four hundred per second.

<http://business.scoop.co.nz/2018/11/13/saferme-launches-weather-halo-mobile-app/>

Satellites and radar

A look back at the history of weather radars

Today's weather forecasts rely on some of the most advanced satellite and radar systems in the world. But it wasn't always used to detect weather. Here's a look back at the history of radar and its eventual use for

<https://www.ksdk.com/video/weather/accuweather/a-look-back-at-the-history-of-weather-radars/607-8310109>

US\$284Bn investment in satellites in 10 years

Independent launch services and a rising demand for global broadband will drive the satellite industry to commission up to 3,300 satellites in the next decade.

https://www.marinemec.com/news/view,us284bn-investment-in-satellites-in-10-years_55865.htm

Innovation and technologies (inc data and new products)

Folder Midi Free] Supercomputers, radars, satellites : new tools for weather forecasting

Like here in the Aude, the episodes in the mediterranean are likely to increase in frequency and intensity.

Against the backdrop of deadly floods in the Aude, in the night of 14 to 15 October, and global warming turned out, the question of the accuracy of the prediction of meteorological phenomena intense is more fraught than ever. Fortunately, the technology continues to evolve...

<https://kozpost.com/blog/folder-midi-free-supercomputers-radars-satellites-new-tools-for-weather-forecasting/15434/>

Space weather

Focus on 'space weather'

The possible threats posed by "space weather" to New Zealand's electrical grids, and to satellites, were highlighted in a talk in Auckland by two Dunedin scientists last night.

<https://www.odt.co.nz/news/dunedin/focus-space-weather>

Climate change / global warming / sea level rise

Fighting climate change: How emergency services are battling changing conditions

California has been battling the most destructive fires in its history and the death toll is rising.

<https://www.abc.net.au/news/2018-11-13/how-emergency-services-are-battling-changing-climate-conditions/10255856>

The Children of Men scenario may not be too far fetched

Climate change damaging male fertility

Climate change could pose a threat to male fertility -- according to new research. New findings reveal that heatwaves damage sperm in insects - with negative impacts for fertility across generations. The research team say that male infertility during heatwaves could help to explain why climate change is having such an impact on species populations, including climate-related extinctions in recent years.

<https://www.sciencedaily.com/releases/2018/11/181113080927.htm>

Journals on Line

Meteorological Applications

Accepted Articles

Observations of mountain waves with interference generated by coastal mountains in South Africa

D van der Mescht, M Geldenhuys

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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](#).

Why a Late Hurricane Season Threat in the Atlantic Fizzled So Fast

November 13, 2018 - Forbes

The National Hurricane Center still keeps a slight chance (20-30%). Candidly, it is looking less likely that we will see "Patty" from this system, and that is a good thing.

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Chinese satellites provide advanced solutions to modeling small particles

November 13, 2018 - EurekAlert!

combining satellite observations." The FY-3A meteorological satellite--a Chinese second-generation polar-orbiting meteorological satellite-

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Warmer Winter Temperatures Linked to Increased Crime, Study Finds

November 13, 2018 - American Geophysical Union

Milder winter weather increased regional crime rates in the United States over the past several decades, according to new research that suggests crime is related to temperature's effect on daily activities.

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Death toll in California soars as officials fear more wildfires

November 13, 2018 - ABC13.com

today, as well as parts of the Sacramento Valley. Officials are warning evacuees eager to return home to stay away, emphasizing that many

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Deep Floats Reveal Complex Ocean Circulation Patterns

November 12, 2018 - Eos

Acoustically tracked floats drift far below the ocean's surface, providing fresh discoveries about deep-sea currents. A new archive gathers decades' worth of float data into a central repository.

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Some Takeaways for Science from Yesterday's U.S. Elections

November 12, 2018 - Science

For scientists, the new Democratic majority in the U.S. House of Representatives isn't the only important result from last night's midterm election.

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Why Does California Have So Many Wildfires?

November 12, 2018 - The New York Times

What is it about California that makes wildfires so catastrophic? There are four key ingredients.

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A 1972 solar storm triggered a Vietnam War mystery

November 12, 2018 - University of Colorado Boulder

weather events, including at its newly-launched Space Weather Technology, Research and Education Center. Coauthors on the new study include

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How Forest Fires Make Their Own Hellish Weather

November 12, 2018 - Popular Mechanics

Route 44 when the postdoc from his lab, San Jose State's Fire Weather Research Laboratory, said the words of every scientist's dreams: "Oh

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The Worst Is Yet to Come for California's Wildfires

November 11, 2018 - The Atlantic

particularly destructive, it is only the latest stage in what the climate scientist Daniel Swain calls "an astonishing multi-year fire siege

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Hurricane Michael is looking even more violent on closer scrutiny

November 11, 2018 - The Washington Post

post after Michael destroyed just about everything here with a massive storm surge and intense winds when it made landfall Oct. 10. The

[Read MORE](#)

Footage of Fire Whirls Gives a Terrifying Look at the Infernos Tearing Through California

November 10, 2018 - Earther - Nature for Nerds - Gizmodo

are more common. Craig Clements, director of the Fire Weather Research Laboratory at San José State University, described them to Earther

[Read MORE](#)

Stunning satellite images and animations offer a sobering perspective on California's raging infernos

November 10, 2018 - Discover Magazine Blogs

tool from NOAA's Regional and Mesoscale Meteorology Branch. It consists of GOES-16 weather satellite imagery, acquired at intervals of just

[Read MORE](#)

The 19th-Century Origins of Climate Science

November 10, 2018 - The Atlantic

research.” Beginning in the 1850s, that research included government-sponsored weather stations and field studies in which intrepid scholars

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How One City Kickstarted the Ozone's Recovery

November 9, 2018 - CityLab

is an assistant editor at CityLab covering science and urban technology, including smart cities and climate change. She previously covered

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Camp Fire shows need for early detection: How tech and artificial intelligence can help

November 9, 2018 - The Mercury News

Clements, associate professor at the Fire Weather Research Laboratory for the Department of Meteorology and Climate Science at San Jose

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Holocene temperature in the Iberian Peninsula reconstructed studying insect subfossils

November 9, 2018 - EurekAlert!

in the study are the researcher Pol Tarrats, member of the research group Freshwater Ecology, Hydrology and Management (FEHM) of the UB and

[Read MORE](#)

Air quality research could improve public health in West Africa

November 9, 2018 - Phys.org

is interdisciplinary, which is why his meteorology background is helpful when venturing into the public health research. "My ancestors came

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Severe Caribbean droughts may magnify food insecurity

November 8, 2018 - Phys.org

Since 1950, the Caribbean region has seen a drying trend and scattered multiyear droughts. But the recent Pan-Caribbean drought in 2013-16 was unusually severe

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Without electric grid upgrades, heat-related power outages in L.A. County are guaranteed by midcentury

November 8, 2018 - UCLA Newsroom

climate change continues, including changing building development policies to reduce people's exposure to hotter weather," Pincetl said. "

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LASSO case study—tapping ARM's Doppler lidars

November 8, 2018 - Phys.org

American Geophysical Union meeting. Most recently, they presented a talk at the July American Meteorological Society Cloud Physics meeting.

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A day after Diwali, Delhi's air turns hazardous again

November 7, 2018 - Quartz

Earlier this week, the System of Air Quality and Weather Forecasting And Research, an initiative of the government's ministry of Earth

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European weather satellite blasts off from French Guiana

November 7, 2018 - Spaceflight Now

Ratier said in a post-launch statement. Meteorologists expect the addition of a third MetOp satellite will result in improved data to feed

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NASA Photo From Space Station Shows Orange Earth 'Airglow' Horizon

November 7, 2018 - Newsweek

the Earth and space. This can reveal findings about Earth and space weather as well. Research into this part of the Earth and space is often

[Read MORE](#)

How Autumn Leaves Could Help Pinpoint Tornadoes on Radar

November 7, 2018 - The Weather

at the American Meteorological Society's 29th Conference on Severe Local Storms. The research, led by Steven Nelson of the National Weather

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My recent WeatherEyes from John Maunder (who has recently been on cruise)

<https://www.sunlive.co.nz/blogs/12722-auranga-october-average-afternoon-temperatures-19132018.html>

<https://www.sunlive.co.nz/blogs/12713-auranga-october-rainfalls-18982018.html>

<https://www.sunlive.co.nz/blogs/12599-arctic-and-antarctic-temperatures-january-2000-to-august-2018.html>

<https://www.sunlive.co.nz/blogs/12596-global-temperatures-1996-august-2018.html>

<https://www.sunlive.co.nz/blogs/12593-sea-level-changes.html>

<https://www.sunlive.co.nz/blogs/12590-tauranga-september-average-afternoon-temperatures-19132018.html>

<https://www.sunlive.co.nz/blogs/12566-tauranga-september-rainfalls-18982018.html>

<https://www.sunlive.co.nz/blogs/12554-sunspots-and-sun.html>

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