

# Shade Tree News

A publication from Shade Tree Meteorology, LLC

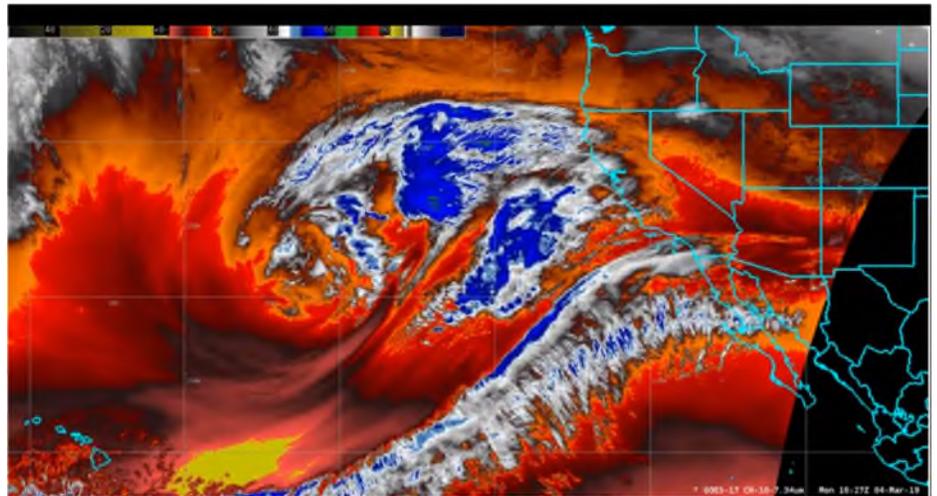
March 2019

Volume 5, Issue 1

## The Latest and Greatest in NOAA Satellites

On February 12, 2019, GOES-17, the second of the National Oceanic and Atmospheric Administration's (NOAA) next-generation geostationary weather satellites began operating in the GOES West position. This latest installment joins GOES-16 (also known as GOES East) in a series of the most advanced weather satellites that have ever been launched into orbit. Secretary of Commerce Wilbur Ross noted that "The latest GOES series of satellites play a critical role protecting the public each day, ensuring better data reaches the forecasters who safeguard countless American lives from weather-related disaster."

GOES-17 will provide faster, more accurate, and more detailed observations that are critical in helping meteorologists predict and monitor Pacific storm systems, se-



GOES WEST monitors an extratropical cyclone moving towards the U.S. West Coast on March 4, 2019, in this infrared water vapor imagery.

vere storms, wildfires, fog, and other environmental dangers. The satellite also provides increased and improved data over the Pacific Ocean, where observations were previously limited, and where many weather systems that affect the continental U.S. originate. The increase in data over oceans is also leading to improved marine and aviation forecasts for those traveling across the Pacific Ocean.

NOAA also announced that NOAA-20, the the first spacecraft in the Joint Polar Satellite System, is operating as NOAA's primary afternoon polar satellite. It features the most advanced technology NOAA has ever flown in a polar orbit to capture more precise observations of the world's atmosphere, land, and waters. NOAA is committed to continue to deploy and leverage the latest technology to help achieve the goals of the Weather Research and Forecasting Innovation Act.

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Source: NOAA



## Building a Weather-Ready Nation: Spring Break Safety

Spring officially begins on Wednesday, March 20, 2019, and that means that schools across the country will soon be taking a week off for Spring Break. U.S. News recently ranked the best spring break getaways, and (surprise!) they were all beaches. In order to make sure everyone has a safe and enjoyable vacation, we wanted to share some tips to ensure that you and your loved ones are prepared no matter the weather!



Rip Current off Big Sur, California. Photo courtesy NOAA/NWS Video Lab

- **Heat Safety**— Heat and humidity take a toll on the body, so know the signs of heat illness and stay hydrated by drinking plenty of water! Remember to apply and reapply sunscreen to protect your skin from sunburn. A helpful tip is to set an alarm on your phone so that you don't forget!
- **Rip Currents**— Rip currents are currents of water flowing away from the shore, and The United States Lifesaving Association (USLA) estimates that over 100 people die each year due to rip currents in the U.S. If you get caught in a rip current, don't fight the current! Swim out of the current and then to shore.
- **Storms**— Thunderstorms can be a mariners or beachgoers worst nightmare. They can develop quickly and can produce strong winds, pounding rain, and deadly lightning. If you see clouds beginning to pile up, thunderstorms are likely beginning to develop. Don't wait until you can hear thunder or see lightning. It is best to head to port or safe shelter at the first sign of a developing storm.

## News from NOAA: Dr. Louis Uccellini Running for WMO President



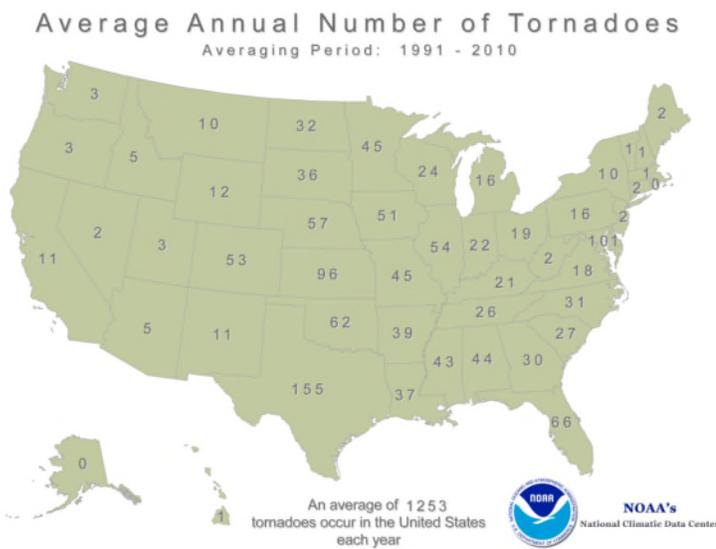
Dr. Louis W. Uccellini is the National Oceanic and Atmospheric Administration's Assistant Administrator for Weather Services, and Director of the National Weather Service. In this role, he is responsible for the day-to-day civilian weather operations for the United States, its territories, adjacent waters, and ocean areas.

He has declared his candidacy for the President of the World Meteorological Organization, or WMO. This decision is a reflection on both his high standing in the international weather, water and climate enterprise, as well as the importance of U.S. policy and actions in these areas on the world's communities. As WMO President, Dr. Uccellini aims to further build a global system that takes advantage of advances in science and technology, understanding stakeholder needs, and of the evolution and growth in the broader weather enterprise. To learn more about his key focus areas, visit: <https://www.weather.gov/wrn/wmo-elections>

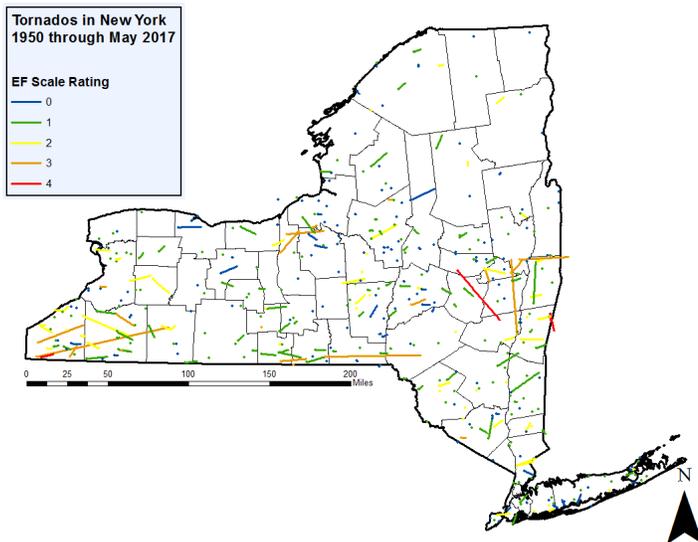
## Hazardous Weather Preparedness: Tornadoes

Most people often associate tornadoes with “Tornado Alley” in the southern plains of the central U.S. or “Dixie Alley” in the Gulf Coast region of the U.S. However, tornadoes aren’t limited to a specific geographic region and have been documented in every state of the U.S. Although tornadoes don’t occur as frequently in the Northeast—with most states reporting two or less—New York is impacted by 10 tornadoes a year on average.

Since the official record began in 1950, more than 400 tornadoes have been documented across New York. While only twelve of these tornadoes have resulted in loss of life, every tornado should be seen as life-threatening. Wind speeds in tornadoes can exceed 200 miles per hour, and flying debris is one of the most dangerous aspects of a tornado. If a *Tornado Warning* is issued, seek shelter in a sturdy shel-



Average Annual Number of Tornadoes. Courtesy NOAA NCDC



Tornado tracks across New York 1950 through May 2017. Courtesy NOAA/NWS Albany

ter in an interior room away from windows on the lowest floor and cover your head. A *Tornado Watch* means to be prepared because a tornado is possible. Make sure to stay alert to changing weather conditions and have multiple methods of receiving weather alerts. Occasionally the NWS Storm Prediction Center uses the wording, “THIS IS A PARTICULARLY DANGEROUS SITUATION,” in a Tornado Watch which indicates a rare situation where long-lived and intense tornadoes are likely (it can also accompany *Severe Thunderstorm Watches* when widespread and exceptionally intense winds are expected).

Make a severe weather plan before you need it. Your family may not be together when a disaster strikes so it is important to plan in advance: how you will get to a safe place; how you will contact one another; how you will get back together; and what you will do in different situations.

If you are impacted by tornado damage, there are a few important things to remember. Listen to local officials, stay up-to-date on the forecast, contact loved ones (to let them know you’re okay) and be mindful of debris (such as glass and nails) and downed power lines. Have available a working radio with batteries and use flashlights instead of candles to avoid starting fires.



Shade Tree Meteorology, LLC

## From the President's Desk

Dear valued clients,

At press time here in New York, we are eagerly awaiting the arrival of spring. As we look into a new season, I am excited to give you some updates on the new growth of our business. As I mentioned in our last newsletter, 2018 was a very exciting year for our company, and we expect to continue the forward momentum which propelled us into 2019. We now have a 'Weather Blog' which will be updated by either Kelly or me weekly (usually on Thursdays). We now have several different methods of communicating with our clients and communities, so here is a summary of the general purpose for each of our communications:

1. [Our website](#) - please visit for information about our business, our meteorologists, case descriptions, and a review of services we offer.
2. [Our Facebook page \(http://www.facebook.com/ShadeTreeMet\)](http://www.facebook.com/ShadeTreeMet) - this is where we will disseminate relevant National Weather Service watches, warnings, and statements in near-real time to keep our readers abreast of possible weather hazards and interesting events around the country.
3. [Our weekly blog \(http://www.shadetreemeteorology.com/blog\)](http://www.shadetreemeteorology.com/blog) - on this site we will discuss interesting weather-related topics in some more detail than we are able to do on our Facebook page. It could be a review of a weather event, seasonal stories which relate to the weather (such as our story on maple syrup production!), and profiles of communities and individuals who demonstrate exemplary weather preparedness. If you would like to receive our updates in our inbox, please feel free to sign up by entering your e-mail address in the form on the blog website.
4. [Our newsletter](#) - this quarterly publication is disseminated to our clients and professional contacts, and contains detailed information about seasonal safety practices, discussions about some of the data sources which we use on a regular basis that you may see in our reports, and news from NOAA and the larger meteorological community which may be relevant to you. Back issues of our newsletter can be found on our website (<http://www.shadetreemeteorology.com/newsletter-meteorology>).

As we head into the spring, we are continuing to book seminar dates for a variety of topics. If you would like us to visit your place of business and give a free 1-hour seminar on hazardous weather preparedness for your business and your family, please feel free to email us. If you would like us to come and give a more in-depth training session or review of your hazardous weather plan, please contact us for rates. If you need a meteorological analysis for a legal case, please give us a call or enter the case information on our Case Conflict Check form (<http://www.shadetreemeteorology.com/forensiccaseconflictcheck>).

As always, we thank you for choosing Shade Tree Meteorology as your provider of meteorological consulting services. We do appreciate your business and look forward to serving you in the future.

### Shade Tree Meteorology

518-831-9374

[alicia.wasula@shadetreemeteorology.com](mailto:alicia.wasula@shadetreemeteorology.com)

[kelly.neugent@shadetreemeteorology.com](mailto:kelly.neugent@shadetreemeteorology.com)

<http://www.shadetreemeteorology.com>

### A Full-Service Forensic Meteorology Firm with a Team of Certified Consulting Meteorologists Specializing in Hazardous Weather Event Reconstruction

Our associates' credentials include:

- **Over a decade of experience as a researcher and teacher in the field of meteorology**
- **Experience providing comprehensive, data-driven research to prepare customized reports based on stakeholder needs**
- **Four decades of experience as an operational weather observer, forecaster and forensic meteorologist**