

▶ READ ABOUT THE WEATHER EVENTS OF 2020.....1



EMPLOYEE SPOTLIGHT—MOLLY MERRIFIELD......3



OFFICE OUTREACH Efforts.....4

Tallahassees NEWS AND NOTES FROM YOUR LOCAL NATIONAL WEATHER SERVICE OFFICE.

O ISSUE 32 O Spring O 2021

The National Weather Service (NWS) office in Tallahassee, FL provides weather, hydrologic, and climate forecasts and warnings for Southeast Alabama, Southwest & South Central Georgia, the Florida Panhandle and Big Bend, and the adjacent Gulf of Mexico coastal waters. Our primary mission is the protec-

tion of life and property and the enhancement of the local economy.

A Recap of 2020 Weather Events By Israel Gonzalez & Tim Barry

US Weather & Climate Disasters: 2020 was a challenging year, with a variety of memorable weather-related events and stories across the US. Among them were 22 separate billion-dollar weather and climate disasters (bottom right) connected to the record hurricane season, east and central US severe weather, western fall wildfires, and west-central drought/heatwave (summerfall), resulting in 262 deaths and nearly \$100B in costs. The nearly two dozen disasters shattered the previous annual record of 16 in 2011 and 2017! https://www.noaa.gov/stories/record-numberof-billion-dollar-disasters-struck-us-in-2020

Summary of Local Events: We experienced our share of notable events in 2020 as well. The first was an end-of-March tornado outbreak in which 5 tornadoes were confirmed, setting the stage for a very active April when a record 22 tornadoes formed that month (previous April record was 7 in 1973)! In May, a series of wildfires broke out in the FL Panhandle, which forced resident evacua-

tions in the affected areas. A few days into the official start of the record hurricane season, Tropical Storm Cristobal made landfall in LA, but outer rainbands produced flooding in Madison County, FL where eastern portions recorded 13-15" of rain! Tropical hyperactivity and above-average rainfall contributed to the wettest August and September on record for Apalachicola, FL, with 8/23 (Tropical Storm Marco) and 9/28 setting new daily record rain totals. The biggest rain event of the year was in mid September from slow-moving Hurricane Sally when prolonged, heavy rainfall resulted in extreme, widespread flooding in the Panhandle and Southeast AL. The last tropical -related impacts were from fast-moving Hurricane Zeta in October. Despite bypassing us to the west, tropical-storm winds were observed in portions of the Panhandle and Southeast AL. Although the record hurricane season officially ended on 11/30, severe weather affected us that day and produced an EF-1 tornado (105 mph) in Madison County, FL. An Arctic blast followed, resulting in the first freeze of the season on 12/1. The remainder of 2020 was cooler than normal and ended with severe weather on Christmas Eve, a post-Christmas hard freeze, and a New Year's Eve heavy rain event.

Local Climate Review by Tim Barry: Tallahassee was warmer than normal in 2020, with an average annual temperature of 70.4° (+2.7° anomaly). All months of the year (except December) were warmer than normal. The year also started very dry, with only 1.33" of rain recorded in January (3.01" < normal). This pattern continued through much of spring and summer pushing Tallahassee into a rainfall deficit until early autumn. September was very wet with 9.55" of rain, more than twice the normal amount. Tallahassee had a surplus of rainfall through the remainder of the year and finished with 60.81" (0.93" > normal). Beginning later this year, climate reviews will be based on updated 30-year climate normals (1991-2020) that are due to release sometime this spring. More details can be found on page 3 in the Spring Outlook section.







Find us on Social Media







Winter Highlights & Climate Summary By Israel Gonzalez & Tim Barry

December: Meteorological winter fittingly began with the first freeze of the season on the 1st from an Arctic blast that followed an end of November severe event. This set the stage for a very active period to close out 2020, with below-average temperatures from multiple cold fronts. Dry conditions behind these fronts made for below-normal precipitation. As 2020 drew to an end, a marginal severe event occurred on Christmas Eve, followed by a post-Christmas hard freeze when widespread min temperatures in the low-to-mid 20s were observed on the 26th. December ended on a wet note as a New Year's Eve heavy rain event spilled over into 2021.





January: The New Year began with a new threat in the form of flash flooding on the 2nd when widespread 3-5" of rain fell in the FL Big Bend and Southwest GA. Isolated areas saw 6-8", particularly in Jefferson County. Tallahassee and Apalachicola also each set daily maximum rainfall records of 2.62" and 3.17", respectively, breaking previous records from the 50s and 60s. The 24hour accumulation at TLH was 3.53", accounting for over 80% of the monthly average. The most notable event of the month occurred on the 27th when an EF-1 tornado (90 mph winds) briefly touched down near Fort Braden, FL, snapping

some tree tops, uprooting several large oak trees and destroying several out buildings. Less than 10 minutes later, another EF-1 tornado (90 mph winds) touched down just west of the Tallahassee Airport, notably flipping a small piper plane over, damaging a couple of hangars, and uprooting a large tree that fell on a couple of cars parked next to it just east of the airport. The tornado and its parent storm cell tracked through sparsely populated areas on the south and southeast side of town and caused sporadic EF-0 damage mainly in Southwood and Tram Rd before lifting just west of the Jefferson County line. Fortunately, there were no injuries nor fatalities. This marks only the second time since 1945 that a tornado occurred in Tallahassee in January. Event info: https:// www.weather.gov/tae/Jan27 2021 TallahasseeTornado.

February: The final month of meteorological winter was warmer and drier than normal, but yielded some active weather beginning in early February, when small hail was reported on Dog Island, FL, and Lloyd & Tifton, GA. Persistent rainfall mid-month also led to riverine flooding that re-occurred heading into March. However, the most prominent event took place on President's Day when severe storms moved across the eastern FL Panhandle and Southwest GA. Three tornadoes were confirmed on the 15th: two EF-0's (Panama City and Washington County, FL), and an EF -2 (130 mph winds) in Damascus, GA. The



latter destroyed 2 homes and injured 5 people. Other damage reports included snapped/uprooted trees, displacement of large objects, damaged roofs and cars, and downed powerlines. Fortunately, there were no deaths. This is the strongest tornado since last April. Event info: https:// www.weather.gov/tae/02152021damascus tornado. Foggy and unseasonably warm conditions closed out the month.

Winter Climate Summary by Tim Barry: The climate for Tallahassee from Dec. 2020 through Feb.2021 saw warmer than normal temperatures. Jan. is our coldest month on average, but this past Dec. wound up being the coldest, with an average temperature of 51.2° (2° < normal). Both Jan. and Feb. were anomalously warm at +1.4° and +1.9°, respectively. There were 19 days of low temperatures at or sub-freezing recorded at the airport (6 fewer than average). Dec. and Jan. each had 8 freezes, while Feb. saw only 3. The highest temperature recorded during winter was 82° on 2/27 and 2/28, while the lowest was 22° on 12/26. Despite 2 of the 3 winter months receiving below-average rainfall, this past season was still a bit wetter than normal. Dec. recorded 3.17" (-0.73" anomaly) and Feb. with 3.58" (-1.29" anomaly). However, Jan. was very wet at 6.81" (+2.47" anomaly), more rainfall than both Dec. and Feb. combined! More than half of the Jan. rainfall (3.53") occurred during the aforementioned event on the 2nd, breaking the daily max record from 1967.

NATIONAL WEATHER SERVICE

Winter Climate Summary (continued) by Eric Bunker: A combination of two large scale patterns/teleconnection indices remaining consistently in a negative phase was mainly responsible for the active winter. These indices are known as the North Atlantic Oscillation (NAO) and the Arctic Oscillation (AO). When the NAO is in a negative phase, cold air is typically forced south across the eastern US. A negative AO index tends to yield lower pressure across the northern hemispheric polar region, leading to more efficient movement of frigid air into lower latitudes. The latter occurred multiple times this winter, which caused frequent periods of seasonably cooler temperatures across the region, often resulting in large west-to-east temperature gradients that aided in several instances of severe weather locally.

Spring Outlook by Tim Barry



The latest Mar-May Outlook from the Climate Prediction Center calls for an enhanced chance for above normal temperatures (50-55%) and below normal rainfall (35-40%). The average temperature and rainfall for Tallahassee during spring is 66.9° and 12.47", respectively.

IS THERE A TOPIC YOU'D LIKE US TO COVER? SEND US AN E-MAIL: israel.gonzalez@noaa.gov mark.wool@noaa.gov tim.barry@noaa.gov

New Climate Normals: A climate normal is a 30-year average of weather variables such as temperature and precipitation. Climate normals are updated every 10 years where the 'older' decade is replaced by a 'newer' one. For the past 10 years we have based our climate normals from 1981-2010. However, we will start using the new climate normals from 1991-2020 this coming May. Here is a sneak peek: every month's max and min temperatures are projected to increase, except for Nov. min temperature, which will decrease; rainfall results are more mixed, with 6 months showing an increase (Jan., Apr., Jun., Aug., Sep., Dec.), 5 months showing a decrease (Feb., Mar., May., Jul., Nov.), while Oct. shows no changes.

Important changes are being implemented by the NWS: Effective 4/28, appending "tags" on Severe Thunderstorm Warnings will be possible for extreme storms. Routine Atlantic Tropical Weather Outlooks will begin on 5/15, two weeks prior to the official start of the hurricane season.

Employee Spotlight - Molly Merrifield

Staffing Changes: We've had quite a bit of staffing changes dating back to last Mar., with 6 new additions to fill much-needed vacancies. Joining us earlier this month were Andy Haner (Lead Forecaster) and Marty Rieman (Electronic Technician), both from NWS Key West. Aaron Basti (Electronic Technician) is due to arrive from NWS Flagstaff in April. The newest forecaster from 2020 is Molly Merrifield (right). Get to know her better in the Q&A section:

How did you become interested in meteorology? I think I've always been curious about the weather, especially severe storms. I once saw a tornado as a kid while summer vacationing at Myrtle Beach, SC one summer and thought it was super cool. I've always liked science and eventually decided on meteorology as a career goal while in high school. Then in college at FSU I did a TV internship and volunteered at NWS Tallahassee. That's really when I settled on wanting to work for the NWS for my career.

What was working during the Hurricane Harvey historic flood event like at NWS Houston? Hurricane Harvey was really tough. I remember feeling a mix of emotions, but I don't think the gravity of the event really sank in until later when we were conducting all of our surveys. Sometimes I don't think we realize we're working a career event right in the moment, and honestly that could be a good thing. I just remember trying to focus, push through the fatigue, and do the best job that I could. I think if I had let myself stop and think about how dire the situation was while it was unfolding, it would have been a lot harder to perform my job with the focus it really needed. One thing that the experience really taught me was to grow a thick skin and not be so hard on myself. Hindsight is 20/20, and you can both look for ways to improve in the future while also feeling at peace knowing you did the best you could with the information you had at the time. I think that's true for any event, but it was definitely a tough lesson for me to learn after Harvey.

Aside from operational duties, what other items do you focus on within the scope of the weather service? My main areas of focus outside of routine duties are the Associate Warning Coordination Meteorologist Program (AWCM), the Leadership, Diversity, and Inclusion program, and working with our student volunteers and new forecasters. For the AWCM program, I help with the WCM duties for our 5 Southeast AL counties and our core partners within them. The Leadership, Diversity, and Inclusion Program is also very important because office culture has a much bigger impact on our morale and office performance than we realize. Finally, I particularly enjoy working with students and new forecasters because I really like teaching, and I also remember what it was like when I was just starting out. I certainly wouldn't be where I am now without the help of forecasters who took the time to teach me so I think it's important to pay it forward.

Outside of work, what are your hobbies and interests? Outside of work I have several different interests. I like to volunteer with the local chapter of the Junior League. I also enjoy crocheting, painting, and redecorating my apartment, reading, and spending time with my two dogs, Buddy and Talullah. Since moving to Tallahassee, we love going on walks around our neighborhood and checking out different trails around the area. Socially, I also like going out with my friends, dining, attending sporting events and concerts (I have a very eclectic music taste), singing, and dancing. I look forward to doing these fun things again after the COVID-19 pandemic ends.





Management-Admin Team

Tom Johnstone, MIC Mark Wool, WCM Parks Camp, SOO Doug Sherrick, ESA Jennifer Nichols, ASA *Vacant,* ITO Kelly Godsey, Hydrologist Ricardo Humphreys, OPL

Lead Forecasters

Don Van Dyke Jessica Fieux Blair Scholl Andy Haner *Vacant*

Forecasters

Tim Barry Lance Franck Claudia (Jeanie) McDermott Wright Dobbs Eric Bunker Israel Gonzalez Kristian Oliver Jasmine Montgomery Molly Merrifield

Electronic Technicians

Aaron Basti Marty Rieman

Winter Outreach Efforts By Mark Wool

Our virtual community outreach program remained active through the winter. On December 4th, we talked weather with a group of 4th graders at Odom Elementary School in Moultrie, GA. On the 11th, WCM Mark Wool spoke to FSU Emergency Management partners about the 2020 hurricane season.

In January on the 10th, Mark and senior forecaster Jessica Fieux partnered with the American Meteorological Society to teach weather to a group of Boy Scouts in Pennsylvania. This allowed the scouts to earn their Weather Merit Badge. On the 22nd, Mark was interviewed by a group sponsored by the National Science Foundation on how the COVID-19 pandemic has impacted planning for hurricane preparedness and recovery. On the 25th, Mark and Jessica joined Robbie Berg and Jessica Schauer from the National Hurricane Center to guide new FSU students on their proposed study on improving the Cone of Uncertainty graphic.

In February, NWS Tallahassee participated in Florida and Georgia's Severe Weather Awareness Weeks (SWAW) from the 1st through the 5th and Alabama's SWAW from the 21st through 26th. These weeks include a tornado drill that allows schools, hospitals and the public in general to exercise their tornado safety plans. We also shared plenty of safety and preparedness information on the web and via social media related to all types of hazardous weather.

Our office partnered with NWS Mobile to organize the first annual Gulf Coast Rip Current Awareness Week, which ran from the 22nd to the 26th, just ahead of our Spring Break season. More people die from rip currents along the Alabama and Florida Panhandle coastlines than from tornadoes, hurricanes, lighting and flooding combined. A majority of these deaths involve out-of-state residents vacationing at the beach. Our offices partnered with regional TV stations to get important safety messaging to a vulnerable public. Particular thanks go to our media partners in Mobile (WKRG, WALA & WPMI), Pensacola (WEAR & WPMI), Panama City (WJHG & WMBB), Dothan (WTVY) and Tallahassee (WCTV). Together, we developed a thorough social media campaign to share safety information. Each day had a different focus, as indicated by the five tabs on the event website linked below.

https://www.weather.gov/tae/ripcurrentawareness

Our TV partners also shared their stories with sister stations well inland, as far north as Arkansas and Tennessee. We also asked our fellow NWS offices across the Southeast to help us amplify the message and reach the targeted populations of would-be vacationers that may be naive to the threat that rip currents pose.

We plan to make this awareness week an annual event and will also do another social media push as we near Memorial Day weekend when school lets out and more families begin arriving at our beautiful beaches.

