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WEATHER SERVICE OFFICE.

# Tallaha topics NEWS AND NOTES FROM YOUR LOCAL NATIONAL

0 2020

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

### **Extremely Active Hurricane Season** By Israel Gonzalez & Lance Franck



Mid-season Review: The 2020 Atlantic Hurricane season officially began on June 1st, with Cristobal forming over the Yucatan that day. Cristobal made landfall in LA a few days later as a tropical storm, but brought heavy rain and dangerous beach/marine conditions to our area. TWENTY more storms have formed since then, which prompted the use of Greek letters for storm names by late September! However, for the purposes of this Newsletter Issue, relevant systems through August are discussed here: Hanna, Isaias, Laura, and Marco. Hanna made land-

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fall in southeast TX as a minimal hurricane, producing life-threatening flooding and mudslides. Isaias brushed the FL east coast before striking the Carolinas and causing widespread damage and power outages in the mid-Atlantic region. Laura was the most notable hurricane of the first half of the season, as it struck western LA at high-end category-4 strength, with max sustained winds of 150 mph! Laura caused considerable wind damage along the coast and well-inland, while raising a high storm surge. Marco formed in the western Caribbean and briefly became a hurricane in the southeast Gulf of Mexico before weakening into a lopsided tropical storm, which displaced the worst weather to the northeast of its center, affecting the coastal Big Bend the most with heavy rain and dangerous surf. Lifethreatening rip currents occurred for almost two consecutive weeks at Panama City Beach, FL from late August into early September, thanks to long period swells from 3 tropical systems - Laura, Marco, and Nana. These swells lead to high surf and more numerous/

powerful rip currents. Marco's swells arrived on 8/22 and Nana's on 9/4. The graph shows wave heights and swell period from a buoy 98 miles south of Panama City. A swell period of 6 seconds or longer (blue bars) lead to more powerful rip currents at Panama City Beach, over this timespan. The wave heights (black line) also reached over 13 feet at the buoy, which resulted in a couple of days of high surf. Conversely, the wave heights were only around 2 feet for several days, which is typically not associated with a high risk of rip currents, yet the elevated swell period and shifting sandbars which augment the rip currents compensated for this. At the top of the graph, beach flags and weather for each day are pictured. Fair weather occurred on 9 of 12 days, or three-quarters of the time.





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### Monthly Highlights & Climate Summer-y By Israel Gonzalez & Tim Barry

**Summer Tune Up (June):** Tropical Storm Cristobal was the first highlight of the month, making landfall along the LA coast as a lopsided system, with its displaced convection producing pockets of heavy rainfall for portions of our area. Tallahassee experienced its greatest 24-hr accumulation of 2.87 inches (") on the 7th, while areas in Madison County, FL received a whopping 13-15" of rain, leading to flash flooding! Another notable event was a Saharan Dust outbreak in late June that produced locally milky/hazy skies and unhealthy air quality. Although the dust did not influence our local weather, it did suppress Atlantic hurricane activity for a few days.

**Comet in the Sky (July):** Meteorology was an important focus for stargazers in July as many were able to see the rare comet NEOWISE grace our skies despite a rainy end to the month (*photo taken by Stephanie Boyette, Lanier County*). The comet is not expected to be seen for another 6000 years! **Pre-Fall Rainfall (August):** August was a wet month for Tallahassee, but wetter for portions of the Panhandle and southeast Big Bend. Panama City, FL experienced a couple of days of flash flooding early in the month, while Apalachicola and the Suwannee Valley had their flooding concerns towards the end. In fact, Apalachicola shattered its daily maximum rainfall record on the 23rd when 7.85" fell (previous record was 2.54" in 1955) as a result of Hurricane Marco's outer rain bands. August was also highlighted by indirect effects/actions from other hurricanes: SpaceX Gulf splashdown to avoid Isaias off the FL east coast, dangerous marine/beach conditions from long-period swells generated by Marco & Laura, and a prescribed burn near Tyndall AFB to address plant debris left in Michael's (2018) wake. The latter produced a spectacular "pyrocumulus" cloud that gave the appearance of a volcanic eruption and even spawned a thunderstorm in its vicinity!

**Climate Summer-y:** From June through August, Tallahassee saw temperatures that were above normal. The average temperature this past summer was 82.1° (0.8° above normal). The hottest temperature recorded at the Tallahassee International Airport (TLH) was 98° on July 20th and August 3rd (lowest temperature was 64° on June 18th). Rainfall at TLH measured during this 3-month stretch was 24.90", (2.65" above normal). June was the wettest month with 9.38" (1.65" above normal). Tallahassee's year-to-date rainfall at the end of August was 42.45", a deficit of 1.46".





### Special Marine Warning Statistics By Don Van Dyke

We are also responsible for issuing marine forecasts for waters up to 60 nautical miles from shore from Walton County to Dixie County. Several new private weather stations as well as stations comprising the Florida Severe Weather Network have come online in the last year along portions of the Florida coastline. These stations have provided us with an increase in the number of observations and storm reports right along the coast, and aided in our ability to issue marine warnings for boaters with an increased amount of lead time. A Special Marine Warning is issued for storms capable of producing at least 34-knot wind gusts (gale force), 3/4-inch hail, or waterspouts over our waters.



# Fall Climate Outlook by Tim Barry



The latest outlook for October through December from the Climate Prediction Center calls for above-average temperatures and equal chances for above or below-normal rainfall. The average temperature for Tallahassee during fall is 69.3° and the normal rainfall is 11.42". Fall is on average our driest season. Hurricane season also runs through the end of November. In terms of the large-scale climate, the latest El Nino Southern Oscillation (ENSO) discussion indicates that ENSO-Neutral conditions have continued

through August. However, sea surface temperature (SST) anomalies in the equatorial Pacific are below average and are trending towards La Nina conditions. Climate models forecast a 60% chance of La Nina developing in the Northern Hemisphere during the fall and 55% chance of continuing through the winter of 2020-21. Ultimately, La Nina conditions did officially develop in September. Broadly speaking, La Nina brings warmer and drier conditions to the southern U.S. during late fall and winter, and tends to increase Atlantic hurricane activity. This is partly why the updated outlook for the hurricane season by NOAA on 8/6 was increased, with an 85% chance of an "extremely active" remainder of season: 19-25 named storms, 7-11 hurricanes (3-6 major).

## **Employee Spotlight - Kristian Oliver**

Kristian is the first of our 3 newest employees to join us this summer. He has a B.S. in Meteorology and Water Resources from SUNY Brockport and is nearing completion of his M.S. at the University of Arizona. Get to know him better by reading the question/answer section below:

1) **How did you become interested in meteorology?** I first became interested in weather during the 2005 hurricane season, which has many similarities to this year in that it was also hyperactive. As a kid I remember seeing the images of the hurricanes from space and was mesmerized by their size and structure. However, it wasn't until high school that I realized I wanted to pursue a career in a physical science, since math and science were my strongest subjects. That's when I knew I would be headed towards a career in Meteorology.

2) What were your experiences in Albany, NY (as an undergrad) and Tucson, AZ (as a grad student/NWS volunteer) like? My undergraduate experience at SUNY The College at Brockport, located in Western New York, was amazing, I met so many lifelong friends who have become a family to me. Having been born and raised in New York City, it was the first time I lived on my own, meeting new people from different backgrounds and living with them is an opportunity I'll always be thankful for. Undergrad allowed me to develop into the individual I am today; I learned from my mistakes while fine tuning skills I needed to be successful. Luckily I had a group of friends within my class that were determined to pursue a graduate education. Being a first-generation student going to a four-year program was a challenge in itself, but they helped me see my potential and pushed me to work hard to reach the goal of pursuing a Masters in Atmospheric Science. That is how I ended up at the University of Arizona for graduate school, under a graduate assistantship. I moved across the country to start all over, with new friends, a new climate, and lots of excitement. As I worked towards a Masters in Atmospheric Science, I also volunteered at the local National Weather Service office, which luckily for me was located right on campus. While volunteering at the Tucson NWS with my amazing mentor, Aaron, I learned more about what the NWS is about while shadowing Aaron on a variety of shifts, during the day and overnight. I helped with a few projects that the office assigned to me, including looking at atmospheric river events and eastern Pacific hurricane remnants and how they impacted southern Arizona.

3) What prompted you to join NWS? I knew I wanted to join the NWS because I've always felt the need to impact society in some way, and what better way than helping people make decisions based on weather predictions which impact our everyday lives. Being a forecaster in both good and bad weather comes with a sense of responsibility that I could be helping someone make an important decision. Whether it's for an outside wedding during the summer, or preparing for a significant weather event, both are [potentially] life changing events and important in their own right and I'm glad I'm able to be a part of the process.

4) Where do you see yourself excelling at the most with the Tallahassee office? While working here at NWS Tallahassee I can see myself excelling at tropical research and improving how we make decisions regarding ongoing weather by creating visual tools in Python that would alert us to high priority situations.

5) **Outside of work, what are your hobbies/interests?** Outside of work I can usually be found playing videogames with my friends, or exploring new places. I'm also interested in eventually taking up storm photography as a hobby. Seeing the beautiful time lapses current storm photographers are able to produce has made me want to also provide this perspective of storms to my friends and family.

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







#### 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 Donal Harrigan Jessica Fieux Blair Scholl Vacant

#### Forecasters

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

#### **Electronic Technicians**

Craig Carpenter Ron Eimiller



### Summer Outreach Efforts By Mark Wool

In June, NWS Tallahassee continued the hurricane season partner training series that began in May. On the 2nd, tropical program leader, Jessica Fieux, and FEMA's Brandon Bolinski conducted a webinar on the use of the online version of HURREVAC, called HVX. HURREVAC-HVX is the National Hurricane Program's hurricane decision support tool that can be used to assist government emergency managers in planning, decision-making and responding to tropical cyclone threats and evacuations. On the 9th, Service Hydrologist, Kelly Godsey conducted training on storm surge. On June 12th, Jessica was interviewed via Skype by WCTV's Hannah Messier about the service life extension program <a href="https://www.roc.noaa.gov/WSR88D/SLEP/SLEP.aspx">https://www.roc.noaa.gov/WSR88D/SLEP/SLEP.aspx</a> for our local KTLH Doppler radar. On the 15th, Hannah interviewed Warning Coordination Meteorologist, Mark Wool, about the NWS Hazard Simplification initiative <a href="https://www.weather.gov/hazardsimplification/">https://www.weather.gov/hazardsimplification/</a>. On the 17th, WALB's Bradford Ambrose interviewed Mark about the same topic, as well as recent Weather Emergency Alert <a href="https://www.weather.gov/wrn/wea">https://www.weather.gov/wrn/wea</a> upgrades. On the 18th, Mark was a panelist on the Gadsden County (FL) Hurricane Season Panel Discussion, which was live streamed on Facebook. On the 24th, Hannah interviewed Mark about the Saharan Dust Layer and its local impacts (see page 2).

Moving on to July, on the 2nd, Mark was interviewed by the Panama City News Herald about the Independence Day Weekend forecast. On the 23rd, Mark was interviewed via Skype by WDHN's Matthew Wine about the hurricane season to date and expectations for the remainder of the season. On the 30th, Mark provided a virtual hurricane season briefing to leadership from the Big Bend Community Organizations Active in Disaster (COAD).

In August, on the 11th, Mark virtually attended the initial planning meeting for the statewide Alabama Winter Weather Exercise planned for early November. Finally, on the 25th, Mark recorded a public service announcement for the Leon County Board of County Commissioners on the hurricane season to date, expectations for the remainder of the season, and ways to make sure folks are prepared to either shelter in place or evacuate in the event of a hurricane threat. <u>https://</u> www.facebook.com/LeonCountyFL/videos/2721933638082372/





### Hazard Simplification

