2023 Hurricane Season Preview
By Israel Gonzalez

Near-normal season? On May 25th, NOAA released their official Outlook for the 2023 Atlantic Hurricane Season (June 1st- November 30th): 12-17 named storms, 5-9 hurricanes, and 1-4 major hurricanes (bottom-right figure). These numbers are around average based on the 30-year climate normal period from 1991-2020. However, the more important takeaways are the probabilities for an above (30%), below (30%), or near-normal season (40%). Regardless, all it takes is one storm that can define a season, so be prepared! Page 5 dives into El Niño and its influence on these projections, along with other competing factors.

Important Change: The routine Tropical Weather Outlook (TWO) issued by the National Hurricane Center (NHC) 4 times a day (2am, 8am, 2pm, 8pm ET) now goes out to 7 days instead of 5. As a reminder, the TWO product highlights any disturbances of interest or active tropical cyclones in the Atlantic and East Pacific basins. The former is given a probability of formation over the next 48 and 144 hrs: low (<40%), medium (40-60%), and high (>60%). Hatch areas on the graphical map indicate where likely development would occur, not the system’s projected track.

In other news: After serving as Deputy Director at NHC this past year, Michael Brennan was officially named the new NHC Director, succeeding Ken Graham on April 10th. Mike has spent nearly his entire career with NHC, beginning as a senior hurricane specialist for 10 years dating back to 2008, followed by becoming the Branch Chief of the Hurricane Specialist Unit since 2018. He has extensive experience that includes supervising operational forecast units through 18 US landfalling hurricanes, including 8 major hurricanes, and more than 20 US tropical storm landfalls.

More news: The NHC determined that a Subtropical Storm (STS) formed off the NE US coast in mid-January 2023 after conducting a re-analysis. Three named storms then developed in the first month of the season: Arlene, Bret, and Cindy. The latter two were simultaneously active for the 1st time since 1968 during June. Bret was also the farthest east forming Atlantic tropical storm this early in the calendar year on record. No storms affected the US.
Spring Highlights  By Israel Gonzalez

March “Madness”: Meteorological Spring began on a very warm note during the 1st week of March when record/near record daily high temperatures were observed. Stormy weather then impacted the Tri-State area in the 2nd week in the form of severe storms and heavy rain. One supercell thunderstorm produced a damaging path from straight-line winds estimated to be 80 mph just east of Tallahassee on the 10th. Unfortunately, there was 1 injury and fatality from a resultant fallen tree on top of a car at the time. By the 13th, unseasonably cold air prompted the issuance of Freeze Watches and Frost Advisories mainly for the northwestern portions of the Tri-state area. Another round of severe weather returned mid-month, with a confirmed EF-0 tornado touching down at Grayton Beach in Walton County, FL on the 17th. A second cold snap then arrived on the 20th and brought about daily record low temperatures to Apalachicola, Albany, Valdosta, and Dothan. Multiple rounds of severe storms and heavy rain then plagued us from the 25th-28th. Several reports of power outages, hail, and isolated flooding were received during that timespan. In addition, we confirmed an EF-0 tornado in Houston County, AL on the 25th.

Severe wx ramps up: April was mainly defined by three separate severe weather events early, mid, and late month. On the 3rd, four tornadoes were confirmed in parts of SE AL and SW GA. A potent cluster of thunderstorms plowing through the Tri-State area was responsible for numerous downed tree/powerline and wind gust/damage reports on the 15th. The most widespread severe event took place on the 27th when scattered severe thunderstorms produced 9 confirmed tornadoes (5 from damage surveys), a few large hail reports, and multiple wind gust/damage reports. The strongest tornado was an EF-2 with max winds of 125 mph that touched down in Hosford, FL. The 9 confirmed tornadoes from this event alone tied 2021 for the 2nd most during April on record at the NWS Tallahassee forecast area. The 13 total tornadoes for the month only trails the whopping 22 from 2020! Periods of heavy rainfall from the 27th-30th also contributed to widespread 1-3", with isolated 4-6" primarily over the FL Panhandle.

More severe wx + flooding: May got off to a cool and quiet start before warming up by the 2nd week when many locations in the Tri-State achieved their 1st 90-degree reading of the year on the 9th and 10th. On the evening of the 11th, severe hailstorms mainly impacted the Tifton, GA area. Several reports confirmed large hail (1-1.75") in parts of Tift and Colquitt County. The largest hailstone measured was 2.5" in Cool Spring which tied the Colquitt County record on 4/20/1991! Wet and stormy weather plagued us mid-month with multiple instances of isolated severe storms and minor to flash flooding. The latter was especially true in Thomasville, GA on the 17th via multiple reports. Many parts of the Tri-State area experienced roughly up to 300-400% of the normal precipitation during the month! This anomalous rainfall fended off potential fire danger that tends to be a problem during the latter part of Spring. May ended on a pleasant note.

Spring Climate Summary: This past Spring season, Tallahassee was much warmer than normal. The mean temperature was 70.8° (6th warmest on record). The 72 eighty-degree days is tied with 2015 for 4th most on record and only 5 days shy of 1st place in 2012! The highest max temperature of the month was 96° on the May 10th, which fell 1° shy of tying the daily record with 1916 and 1936 and highest such Spring reading since the 100° in 2019. The capital city achieved its first ninety-degree day of the year on May 9th at 92° (late by 8 days, on average) Lastly, for the 3rd consecutive year, the lowest minimum temperature was 32° back on March 21st. Looking at precipitation, the seasonal accumulation was 9.66", nearly 2.5" below average. The wettest month was March when 3.46" of rain fell, with April only trailing by 0.10". Despite May being the driest month at 2.84", 5/16 proved to be the wettest Spring day when the Tallahassee Airport recorded 1.83".

Tallahassee Climate Summary  March–May 2023

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<td>94°</td>
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<td>Lowest temp</td>
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<td>Total rainfall</td>
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<td>Total 80° days</td>
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Summer Normals

|                  | 81.9° | 22.5" |

National Weather Service Tallahassee
2023 Hurricane Awareness Tour at TLH (Recap)

By Lance Franck

The Gulf Coast Hurricane Awareness Tour visited Tallahassee International Airport on Thursday, May 4th, 2023. The event was very successful, with 24 exhibitors, several hundred local school children in attendance from the 5th and 6th grades, a huge public turnout, as well as about 15 VIPs from federal, state, and local governments. The weather also cooperated, with sun filled skies, a dry air mass, and highs in the 80s. This was a culmination of months of planning, including the development of deep relationships with partnering agencies, who made the event possible.

Both Tallahassee International Airport and the Fixed Based Operator (Aero Center) were very enthusiastic about hosting the event. Airport personnel ensured the aircrew and NWS had everything they needed, and assisted with keeping everyone safe. Aero Center staff cleared all aircraft out of their 15,000 sq ft hangar to make room for indoor exhibitors, student presentations, and a lunch area. This included 50 tables and over 220 chairs provided by Leon County Emergency Management. The American Red Cross distributed nearly 1,000 bottles of water at the event, which was offered to students and attendees upon entry, as well as on the hot airport tarmac. The Federal Alliance for Safe Homes (FLASH) donated 150 boxed lunches to the event, ensuring all aircrew, NWS staff, exhibitors, and student volunteers were fed.

A diverse cross section of the community was present, including school children from underserved districts and adults from the Tallahassee Senior Center & Foundation. Public turnout was so large that alternative parking contingencies in an overflow lot were being considered. After the morning media briefing, many subsequent media interviews were provided throughout the day. Amongst NWS staff, there was close coordination to ensure the event went smoothly. We also distributed an event flier (English and Spanish) with hurricane preparedness information.

We received compliment after compliment about how well organized the event was, how friendly and attentive everyone was, and how this was one of the best Hurricane Awareness Tours they experienced. This will go a long way in delivering hurricane preparedness information directly to the communities we serve, and no doubt aid in the protection of life and property during the upcoming 2023 hurricane season.

New Meteorologist arriving: The biggest staffing update is the announcement of our newest meteorologist selection, David Reese (pictured left)! He will officially be joining us in late September. David attended Florida State University and is happy to be coming back after 13 years. During his time away, he spent 10.5 of them as a broadcast meteorologist in Columbus, GA (4.5 years) and Charlottesville, VA (6 years) followed by 2 plus years at the NWS Brownsville, TX Weather Forecast Office. Over the course of his career, he has covered many different types of events including tornadoes, hail, damaging winds, hurricanes, floods, snow storms, and ice storms. He is excited to come back to Tallahassee along with his wife, Samantha, where they will be much closer to family.

ET News: Our longstanding 2nd Electronic Technician vacancy should be filled very soon. An interview was completed recently and a selection has been made, pending the applicant’s response. This hire will be a welcome addition!

Staffing Update by Felecia Bowser
Spring is typically the busiest time of year for the NWS office in Tallahassee in terms of outreach as we gear up for hurricane season. And this season was especially busy with May 4th’s Hurricane Awareness Tour (see page 3). In addition to the HAT, WCM Mark Wool briefed City of Tallahassee residents at neighborhood meetings organized by the city on May 15th and June 6th, 13th and 19th. Mark joined city and Leon County officials at an annual press conference on June 1st at the Public Safety Complex to encourage residents to prepare for hurricane season. Hurricane outlook briefings were also delivered to FDEM Region 2 partners on May 31st, The Tallahassee Amateur Radio Society on June 1st, Leon County Healthcare partners on June 2nd, the Big Bend Healthcare Coalition on June 6th, FSU on June 7th, Gadsden County on June 15th and the Apalachee LEPC on June 27th.

Our efforts weren’t entirely focused on the tropics. On May 20th, forecaster Wright Dobbs tabled at the annual Wakulla County Expo. That same day, Mark participated in the My Jumpstart to Independence Conference here in Tallahassee. The conference targets youth in the foster care system to help prepare them for an independent adulthood once they age out of the system at 18.

In addition to the outreach, the office facilitated a Hurricane Exercise for Gadsden County, FL on April 20th, and conducted partner tropical training on May 24th.

Several media interviews were given over the course of the spring months on many varied topics. On March 22nd, Mark spoke with WMBB News 13 in Panama City about the “Seaweed Blob,” a large mass of sargassum making headlines as it entered the Gulf of Mexico. On March 31st, MIC Felecia Bowser did an interview with WTXL, ABC 27 while staffing a booth at the annual Springtime Tallahassee Jubilee, pictured below (Mark with ASA Jennifer Nichols). On April 3rd, Mark spoke to a research group exploring ways the NWS is reaching out to vulnerable and underserved populations. On April 28th, Felecia was interviewed by WMBB about impending severe weather. Mark was interviewed by WCTV, Channel 6 on the same topic. On May 25th, Mark gave an interview with News Service of Florida’s Tom Urban on the upcoming hurricane season. This marked the first interview given inside the office since before the pandemic!
El Niño has arrived: Earlier this year, sea-surface temperature (SST) anomalies in the Eastern Equatorial Pacific shifted from La Niña (at least –0.5°C, cool) to Neutral with robust signals for a transition to El Niño (at least +0.5°C, warm). A Watch was issued on April 13th by the Climate Prediction Center (CPC) given the then high likelihood of development by this summer. By May 11th, probabilities of a “strong” El Niño (at least +1.5°C anomalies) were 55%. On June 8th, an El Niño Advisory was issued by the CPC in response to SST anomalies in the Eastern Equatorial Pacific meeting criteria (upper-left figure). This development has potential implications for this year’s Atlantic Hurricane Season. Typically, El Niño increases the vertical wind shear across the basin (upper-right figure), which tends to suppress activity. However, above-average Atlantic SSTs and the potential for an active west African monsoon may offset things. These potentially competing factors explain why current projections are only slightly weighted towards a near-normal season at 40%.

Summer Outlook: The CPC has probabilities favoring above-normal temperatures (right-center figure) from July-September at 50-60%, with equal chances (~33%) for above/below/near-normal rainfall. Summer is climatologically the warmest/wettest season of the year. Normal mean temperature and rainfall is 81.9° and 22.5" for Tallahassee. Recent rains has removed drought across the area and conditions are projected to remain unchanged through September (figure directly below).

River Flood Risk: The long-range flood chance of exceedance is <50% for all area rivers through September except at Aucilla River at Lamont (US 27). Overall, widespread riverine flooding appears unlikely. Of course, these projections could be offset by anomalous rainfall (e.g., tropical systems).