

► READ ABOUT TALLAHASSEE APRIL FLASH FLOOD EMER-GENCY AND MAY TORNA-DOES.....1



EMPLOYEE SPOTLIGHT—THE NWS TALLAHASSEE STAFF......3



• OFFICE OUTREACH EFFORTS......4

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

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.

April Flash Flood Emergency and May **Tornadoes Impact the Tallahassee Area** By Israel Gonzalez

From April 10th-11th, significant rainfall impacted the Tri-State area. Among the hardest hit locations were the Tallahassee area into parts of the adjacent Eastern Big Bend and South-Central GA. Leon County stood out most. A myriad of flood reports came in the evening of the 10th before conditions worsened overnight. High water rescues were being conducted and water was infiltrating homes, businesses, and other buildings. In response to this very serious situation, an exceedingly rare Flash Flood Emergency (FFE, lower-left fig) was issued for the Tallahassee area, for the first time since December 2014, and second time overall. To put into perspective the rarity of such a warning, we have previously only issued 7 FFEs, of which most were attributed to tropical systems (e.g., Debby 2012, Sally 2020, Idalia 2023).



On the morning of May 10th, tornadoes and swaths of intense straight-line winds ravaged the Tallahassee area. Three tornadoes (lowerright fig) went through Leon County, of which two, each rated EF-2 (max winds of 115 mph), simultaneously converged on Tallahassee. That same storm also was responsible for destructive wind damage in excess of 100 mph with the FAMU weatherstem site reporting a peak gust of 84 mph, while the Tallahassee Airport gusted to 66 mph. The former surpassed the 83-mph record gust at KTLH from 9/11/1990! The resultant impacts were widespread power outages, downed/snapped/uprooted trees, and 400+ broken utility poles (exceeding Hurricanes Hermine/Irma/Michael combined, per the City of TLH). Unfortunately, there were two storm-related fatalities.







NATIONAL WEATHER SERVICE

Find us on Social Media



Spring Highlights By Israel Gonzalez

March gave us a little bit of everything from all modes of severe weather, to flash flooding, and at or near frost/freeze conditions. The first of two of the most prominent events occurred from the 8th-9th when a prolific heavy rain band produced flash flooding in SE AL and parts of SW GA. Radar-estimated amounts in the hardest hit areas were widespread 3-6", isolated higher. Storms during that time also produced two EF-1 tornadoes (Dale and Leon-Jefferson County) and 80-mph straight-line wind damage (around the Miccosukee area). On the 27th, a cold front stagnated across the Tri-State area and provided a focus for multiple rounds of thunderstorms that produced heavy rain (swaths of 3+ inches), damaging gusts (notably <u>75-mph downburst in Valdosta</u>), and a lot of hail. Lastly, our <u>frost/freeze program resumed</u> on the 15th for the growing season.

April will be remembered for its extreme flooding rain event that occurred from the 10th-11th. During that time, scattered to numerous thunderstorms produced very heavy rainfall in multiple waves across much of the Tri-State area. Severe thunderstorms also produced <u>multiple wind gust/damage</u> reports along the coast, FL Panhandle, SE AL, and much of the FL Big Bend. Minor to moderate riverine flooding became a focal point in the aftermath, particularly for the Ochlockonee, Aucilla, St. Marks, and Suwannee basins. Eastern portions of Leon County in the Chaires/Capitola/Baum areas experienced areal flooding where high-standing water posed a hazard to motorists.

May was an incredibly busy month defined by heat, heavy rain, and severe thunderstorms. The main weather event occurred on the 10th when a severe squall line plowed through parts of SE AL, the FL Panhandle & Big Bend early that morning and produced a total of <u>6 confirmed tornadoes</u> between Leon (3), Walton (1), Houston (1), and Madison (1) Counties. The Tri-State area would go on to experience wet/stormy weather from the <u>13th-14th</u>, followed by the <u>25th, 27th (multiple downed tree/hail/flood reports), and 28th.</u> A "mini derecho" also produced a peak 70-mph gust at the Apalachicola Airport on the 17th.



Generated 6/4/2024 at HPRCC using provisional data. NOAA Regional Climate Cent

Spring Climate Summary: Much warmer and wetter than normal (*figures above*). Tallahassee's mean average Spring 2024 (March-April-May) temperature of 70.6° is near the top-10 warmest on record. The capital city experienced its first 90° day of the year on April 19th (early by 8 days on average) and 22 overall for the season (tied for 5th most on record). The highest/lowest daily seasonal temperature was $96^{\circ}/36^{\circ}$. The Spring rainfall accumulation of 22.77" is the 10th highest on record thanks to multiple instances of anomalous precipitation. For the April 10-11th event, KTLH measured a whopping 24-hr total of 7.11", which easily set a new daily record on the 11th at 4.89", and was the 3rd-wettest April day observed. In addition, Tallahassee cracked the top-5 highest hourly Spring months accumulation at 2.13" around 3AM ET that morning. The highest measured rainfall amount during that time was 10.49" from a Tallahassee 5.2 E CoCoRaHS station. Much of April was otherwise mostly dry. In May, KTLH was abnormally wet, with a monthly total of 7.69" (most since 1997) and greatest 24-hr amount of 3.7" from the 13th-14th (exceeding the climatological monthly normal value by nearly a half inch).

Summer Climate Normals: Tallahassee's normal Summer (June-July-August) mean temperature and seasonal accumulation for Tallahassee are 81.9° and 22.5" respectively, which is the warmest and wettest season of the year, on average.

Staffing Updates By Israel Gonzalez

Eric Bunker (*bottom-right picture*), one of our meteorologists, recently accepted a Lead Forecaster position for the NWS Blacksburg, VA office. His last day at the Tallahassee Office is August 10th. Eric joined us in 2018 just before Hurricane Michael and has been an integral part of our team as our AWIPS, student volunteer program, and winter weather focal point. His impending departure will be bittersweet as a new vacancy is likely to become available on a 6th Lead Forecaster position. We wish Eric the best on this new chapter of his career. He



will be missed. In terms of other staffing news, a 3rd Electronic Technician is looking to be filled in the near-future, which has been a longtime coming. Lastly, Lead Meteorologist Andy Haner (*bottom-left picture*) recently completed 30 years of service with the NWS that included previous stints with WFO Key West, Seattle, Spokane, and Tulsa. His career ironically started in Apalachicola for a then WSO prior to the NWS modernization. Congratulations Andy! We're fortunate to have had you here since 2021.



Employee Spotlight - NWS Tallahassee Staff Amidst Spring 2024 Local Disasters: By Israel Gonzalez

Normally, our Employee Spotlight section focuses on an individual, but this Newsletter Issue offers a collective recognition of our entire staff (*name list on page 4*) for their outstanding work with the two significant weather events that greatly impacted the Tallahassee area this Spring.

Leading up to April 10th-11th, we tirelessly worked on forecasting and messaging to the public and our core partners about the potential for very impactful heavy rainfall and flash flooding. The actual weather event spanned at least 24 hours across multiple shifts, for which the peak local activity occurred in the middle of the night. We had increased staffing to evenly distribute forecast, DSS, public desk, social media, and radar operation duties, which also included working some overtime to ensure constantly adequate office staffing. The decision to issue the exceedingly rare Flood Flash Flood Emergency for the heart of Tallahassee was a group effort after carefully considering multiple factors: threat magnitude & duration, coordinating with Emergency Management & Law Enforcement, and setting off Wireless Emergency Alerts to thousands of people overnight. We also had to consider our own safety commuting to and from the office. The event's aftermath was similarly important as rainfall data had to be accumulated, then quality controlled ahead of sending a Public Information Statement, in addition to having meetings with Leon County for consecutive days on hazardous areal flooding, and contending with longer term riverine flooding.

Fast forwarding to nearly a month later, we found ourselves in a similar significant impact-based scenario, but the threat shifted to severe weather. Similar to the previous event, we began preparing days in advance for May 10th doing our usual due diligence of analyzing model trends, leaning on pattern recognition, being proactive on staffing plans, and partner/public messaging. The severe threat potential increasingly grew as the event drew near.

The morning of May 10th prompted multiple Severe Thunderstorm & Tornado Warnings with the main intense squall line bearing down on Tallahassee slightly before 7AM ET. As an embedded storm moved east into Gadsden County, a radar signature known as a "reflectivity or inflow notch" developed, which could be a precursor for a tornado. After carefully watching this small-scale feature have good temporal continuity for at least a couple minutes, the warning forecaster issued a Tornado Warning via radar-indicated rotation. Shortly after issuance, a "tornado debris signature" or TDS was recognized, which prompted a warning upgrade to "radar-confirmed", indicating that a tornado was likely on the ground at that point. Thereafter, two more embedded circulations appeared a bit south of the first one within the same squall line. A second Tornado Warning was issued for the southernmost "couplet", which went on to produce another TDS moving towards the Woodville area. The two northernmost suspected tornadoes then began converge on the western parts of Tallahassee. At that point, it became increasingly clear that a <u>dangerous situation</u> was about to unfold for the State Capital. A third and larger Tornado Warning was issued to cover Central Leon County. Not long after, we decided to hand radar operations to our neighbors in NWS Jacksonville to <u>seek shelter</u> as the tornado(es) came frightfully close to our office on FSU's campus. Ominous sounds were heard while waiting out the storm in our safe place, followed by light flickers, then power outage before the generator kicked in. A handful of meteorologists were hunkering down with all of us nervously following radar and checking on loved ones.

We emerged from shelter after the imminent threat passed us, but severe storms continued eastward with the KTLH Tallahassee radar going down coincident with the Moody AFB KVAX radar already being offline. These conditions essentially "blinded" us, so we resorted to using the distant Jacksonville KJAX radar to continue issuing warnings. Meanwhile, the staff was still reeling from what occurred locally, but we had to gather ourselves to remain focused on the NWS mission of protecting life and property. Once the weather went into a lull, the team then began planning event aftermath plans that included media interviews, social media updates, damage surveys, fielding many damage reports, coordination with emergency management & local officials, and Public Information Statements.



Management-Admin Team

Felecia Bowser, MIC Mark Wool, WCM Parks Camp, SOO Doug Sherrick, ESA Jennifer Nichols, ASA Brian Coats, ITO Kelly Godsey, Hydrologist Ricardo Humphreys, OPL

Lead Forecasters

Don Van Dyke Blair Scholl Andy Haner Karleisa Rogacheski Molly Merrifield

Forecasters

Lance Franck Wright Dobbs Eric Bunker Israel Gonzalez Kristian Oliver Jasmine Montgomery Cameron Young Joe Worster David Reese

Student Volunteers

Alice Brennan Anna Walker

Electronic Technicians

Aaron Basti *Pending*

Spring Outreach Efforts By Mark Wool

Spring is always the busiest time of year for outreach and this year was no exception. In March, we finished off our Rip Current Awareness Week campaign on the 1st. On the 8th, WCM Mark Wool was interviewed about Climate Change by WTXL's Riley Winch. On the 11th, forecasters Andy Haner and Joe Worster provided instruction at the National Prescribed Fire Training Center. Andy returned on April 8th to teach to a different group. On the 19th of March, Mark briefed the Apalachee Local Emergency Planning Committee on the spring outlook. Later that day, Mark conducted SKYWARN Spotter training for FSU Meteorology majors. On the 21st, forecaster Karleisa Rogacheski briefed Southwest GA emergency management officials in Thomas County. Her briefing included the spring outlook and upcoming initiatives at NWS Tallahassee. That evening, Andy conducted spotter training in Ozark, AL for the Dale County Community Emergency Response Team. On the 26th, Andy gave a talk at the North FL Prescribed Fire Council Meeting. He then represented the office at the Alabama Division B meeting of Southeast AL emergency managers in Troy, AL on the 28th.

Mark kicked off April by giving an interview to Riley Winch about the new experimental cone graphic debuting this hurricane season. The office staffed a booth at the annual Springtime Tallahassee Jubilee on the 6th. MIC Felecia Bowser, SOO Parks Camp, ASA Jennifer Nichols, forecaster David Reese (*pictured*), and FSU Meteorology students Robert Szot, Garret Harvey (*both pictured*), Alice Brennan and Thomas Silas all helped out at the booth. On the 12th, Andy gave a fire weather outlook to the San Pedro Bay Landowners Association Annual Meeting. Several NOAA offices, including NWS Tallahassee (Mark) participated in the annual FAMU STEM Day on the 13th at the Al Lawson Center. On the 20th, Forecaster Eric Bunker manned a booth at the Taylor County Disaster Day Convention.

In May, Mark briefed local neighborhoods on the upcoming hurricane season at City of Tallahassee Plan for Readiness and Emergency Preparedness (PREP) events on the 7th and 30th. Hurricane season outlook briefings were given by Senior Service Hydrologist Kelly Godsey to officials in Gadsden County FL on the 14th, Calhoun County FL on the 21st, Lowndes County GA on the 22nd, and the Tallahassee International Airport on the 23rd. Mark spoke about hurricane season preparedness to two groups at Tyndall AFB on the 28th. On the 23rd, Mark was interviewed about the upcoming hurricane season by the News Service of FL and later participated in a Deep Dive podcast for the same organization. At the conclusion of our annual partner tropical training day on th 29th, Mark gave an interview to WSWG's Matthew Crumley on the hurricane season outlook. Mark wrapped up the month and season by participating in the annual Leon County press conference focusing on hurricane preparedness.



State of ENSO and Hurricane Season Outlook & Summer Outlook, by Israel Gonzalez





Final El Niño Advisory/La Niña Watch (June 13, 2024): Near to below-normal sea-surface temperatures in the Equatorial Pacific (*upper-left fig*) confirms that El Niño has given way to ENSO-neutral conditions. This pattern change is a precursor to a likely transition to La Niña some time this summer with a <u>65% chance</u> of development between July & September and highly probable to persist into Northern Hemispheric Winter 2024-2025 (85% chance from November-January). The significance of La Niña is the tendency to favor above-normal Atlantic Hurricane-Season activity, which is discussed further below.

Hurricane Season 2024 Outlook: On May 23rd, NOAA released their official 2024 Atlantic Hurricane Season Outlook. The combination of ongoing anomalously warm sea-surface temperatures in the basin's Main Development Region, weak trade winds, and an active West-African Monsoon coupled with an expectation of La Niña (*upper-right fig*) developing later this summer yielded

of La Niña (*upper-right fig*) developing later this summer yielded an aggressive forecast. There is a very high likelihood (85% probability, *fig below*) of an above-normal season by storm count with a prediction of 17-25 named storms, 8-13 hurricanes (4-7 major hurri-



canes). The climatological 30-year (1991-2020) normal tally is 14 named storms, 7 hurricanes (3 major hurricanes). It is important to note that this outlook is not a landfall forecast. Furthermore, we stress to not focus on the number of storms, but rather, the probabilities, which tells a clearer story. Regardless, it only takes one storm to define a season (e.g., Idalia 2023).

Summer Climate Outlook: The Climate Prediction Center shows odds favoring a warmer and wetter than normal summer with "likely above" probabilities ranging from 50-70% (*right-hand figs*) from July through September. Prolonged and/or frequent heat waves often are responsible for anomalously hot temperatures while common seabreeze-driven thunderstorms, and mesoscale convective & tropical systems are the main rainfall contributors this time of year.

