March 3rd Tornado Outbreak

By Katie Nguyen and Wright Dobbs

On March 3rd, 2019, a potent low pressure system made its way through the Southeast. In the morning and early afternoon of the 3rd, discrete supercell thunderstorms formed well ahead of the approaching cold front. Some of these cells produced tornadoes as well as large hail. There were 12 tornadoes confirmed in the NWS Tallahassee area of responsibility. The strongest tornado was rated EF-3 in Leon/Jefferson County, Florida. This was only the second F3 or EF-3 to affect Leon County since 1945.

The tornado with the longest track was an EF-2 tornado with a 26.8 mile path length that moved from NWS Birmingham’s area of responsibility into ours and then finally into NWS Atlanta’s area.

You can see more details about this event, including satellite and radar imagery and damage photos on our webpage at: https://www.weather.gov/tae/March3Outbreak.

NWS Tallahassee would like to extend our appreciation to the many emergency management, law enforcement, and fire rescue personnel that assisted in these field surveys for this event.
Meteorological spring runs from March 1 through May 31, whereas astronomical spring runs from the Spring equinox to the Summer solstice (which is March 20 to June 21 this year). During the spring months, our local area can be threatened by tornadoes, damaging winds, hail, lightning, and flooding. Temperatures increase in the springtime and with that comes a higher risk for excessive heat. The uptick in temperatures also means more people flock to our Gulf beaches, which can have dangerous rip currents. Continue reading to learn how to prepare for these springtime weather threats.

Tornadoes

Did you know that most of the tornado warnings in our area occur in February, March, and April? That’s the end of winter and the beginning of spring! As the southeast witnessed with the March 3rd tornado outbreak, tornadoes can be devastating. If you receive a tornado warning, you should 1) get inside a sturdy building, 2) get down to the lowest level of the structure in an interior room (away from windows and exterior walls), and 3) use a helmet, pillow, or mattress to help cover up your head. Get in. Get down. Cover up.

Wind

Severe thunderstorm warnings are issued when a storm is capable of producing 58 mph winds or great. The first step to protect yourself during a severe thunderstorm warning is to take shelter inside a sturdy building. The safest spot is an interior spot in your house with no windows - this is often a closet or a bathroom. Have a safety kit located in that safe place and have a safety plan that is communicated to everyone in your house and place of business.

Hail

Severe thunderstorm warnings are also issued when a storm is capable of producing hail 1” in diameter or large. In other words, if hail is about the size of a quarter- it’s severe! The safety plan for a storm producing large hail is the same as for one producing high winds- get inside and away from windows.

Lightning

Thunder is the sound by-product of lightning, so all thunderstorms by definition always have lightning. On average, lightning kills 30 people each year. The best way to protect yourself from lightning is to get indoors as soon as you hear thunder or see lightning in the distance. The inside of a car can also be a safe place from lightning, provided that the vehicle has a hard top (i.e. not a convertible) and that all the windows are rolled up. A car is not a safe space, however, in a severe thunderstorm or a tornado.
How did you become interested in meteorology?

From an early age I’ve always had a general interest in science related topics, but it wasn’t until summer/fall of ’05 when my interest for meteorology really sparked. That year’s hurricane season was amongst the most active in recorded history. Miami, where I lived at the time, was impacted by a barrage of storms which included Wilma, Rita, and Katrina. After hurricane Katrina hit, my home lost power for about a week, most of the shingles from my roof were gone and classes were suspended for two weeks. While my family and I continued to recover, I remember following the news and learning that Katrina’s landfall in South Florida was only the beginning. That year I quickly realized the potentially devastating physical and social effects that hurricanes have and I was convinced I needed to understand more.

How did you start working with the NWS?

My journey to the NWS was a long but direct one. After beginning my undergraduate studies in meteorology at the Universidad de Buenos Aires in Argentina, I quickly realized that a job with the NWS was at the top of my list. After my family and I moved back to the United States in 2013, I continued my education at Florida State University. During my second year there, I was offered a volunteer position with the NWS office in Tallahassee. Shortly after graduating with my M.S. degree in Meteorology, I accepted a full-time position with the office.

What is your favorite part of your job?

My favorite part is the responsibility that comes along with the job. At the NWS we issue advisories, watches and warnings, provide decision support services to our partners, and expert meteorological information. All these duties have a direct impact on the daily lives and safety of the public. This responsibility makes my job that much more rewarding when lives are saved during adverse weather. This is what keeps me coming into the office every day and drives me to become the best meteorologist I can be.

What’s the most challenging part of your job?

The schedule, period. Weather doesn’t sleep, so NWS offices around the nation run 24/7. Our rotating shifts mean that sometimes we wake up very early, sometimes very late and every couple of weeks we work overnight shifts. I personally struggle waking up for my shifts that start at 5 am. Nevertheless, this type of schedule does come with some pros such as longer breaks during our time off.

Where do you see yourself in 5-10 years?

As a tropical meteorologist enthusiast I will pursue a career path that will lead me to work within this field. Does that mean NHC? Possibly! What I do know, is that I want to become an expert in this field regardless of where I end up working.

When you’re not at work here, what do you like to do?

When I’m not rewiring my sleep cycle to prepare for the upcoming set of shifts, I find myself doing exercise or hanging out with friends and family. My favorite sports are swimming and soccer. I competed nationally in swimming throughout high school, so I try to stay up to speed with that. On the weekends or days off, I like to have a beer with friends or fly home to Miami and visit my family. Routine trips back home always keep me grounded and motivated to keep going!

Spring Safety

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Flooding

More than half of all flooding deaths are vehicle related. If you’re approaching an area of road covered in water, turn around and don’t walk or drive into it. It can be extremely difficult to gauge just how deep the water is. Just 6” of moving flood water can knock over an adult and 12” of moving water can carry a small car away. Two feet of moving water can carry away most vehicles.

Heat

As temperatures increase, it’s important to stay hydrated and recognize the signs of heat exhaustion. Signs of heat exhaustion include feeling faint or dizzy, excessive sweating, clammy skin, nausea, a rapid, weak pulse, and muscle cramps. If these symptoms occur, get to a cooler, air conditioned place, drink water, and use a cool compress or take a cool shower. Heat strokes, which are even more dangerous, can be accompanied by a throbbing headache, red, hot, dry skin, and a rapid strong pulse. People suffering a heat stroke may lose consciousness. If you recognize these symptoms in yourself or someone else, call 9-1-1 immediately and take actions to keep cool until help arrives.

Rip Currents

If you’re headed to the beach, make sure you take note of what color beach flag is flying. Red flags mean that there are dangerous rip currents are present and you should not enter the water. When double red flags are flying, the waters are closed. If you do get caught in a rip current, swim parallel to the shore until you escape the current’s pull. If you get tired while swimming, float on your back. Once you’re free from the pull of the current, swim at an angle away from the current toward the shore.
Climate Recap for Winter

By Tim Barry

The climate for Tallahassee during the 3-month period of December 2018 through February 2019 saw temperatures that were warmer than normal. The average temperature for winter was 57.3°F, 4.3°F above normal. All three months were warmer than normal with February being the warmest with an average temperature of 63.4°F, 8.7°F above normal. This makes February 2019 the 4th warmest February on record. The highest temperature recorded at the Tallahassee International Airport was 83°F on February 21st and 22nd. There were two records broken and one tied this past winter. On New Year’s Day, the max temperature reached 81 degrees breaking the old record of 81°F in 1989. On February 21st and 23rd the max temperature reached 83°F breaking and tying the record for those days respectively. The previous records for both days occurred in 2018. The coldest maximum temperature occurred on December 10th with a high of only 47°F. There were thirteen days with minimum temperatures at or below freezing this past winter, 11 below normal.

During winter we normally see 13.09” of rain and this past winter we received only 20.36”, 7.27” above normal. December 2018 was the wettest December on record with 15.77” of rain, 11.87” above normal. The previous record was 12.78” in 1907. January and February were both drier than normal with February the driest with only 1.12” recorded at the airport. The greatest amount in a 24-hr period was 3.38” on December 2nd. There were no rainfall records tied or broken this past winter. The peak wind gust recorded at the Tallahassee International Airport was 42 mph from the southeast on January 23rd.

For the calendar year, the total rainfall measured at the airport was 79.86” which was 20.63” above normal and making 2018 the 9th wettest year on record. Tallahassee’s wettest year was in 1964 with 104.18” of rain.

Spring Outlook

By Tim Barry

The latest outlook for spring (March through May) from the Climate Prediction Center calls for an enhanced chance for experiencing above normal temperatures and above normal rainfall. The average temperature for Tallahassee during spring is 66.9 degrees and the average rainfall is 12.47 inches. The current El Nino Southern Oscillation (ENSO) cycle across the eastern Pacific is El Nino and this is expected to continue at least through the spring of 2019. The ENSO cycle has little impact on our local weather during the spring.

Outreach Efforts

By Mark Wool

Outreach efforts resumed in February after the shutdown. On the 2nd, forecasters Jessica Fieux, Jeannie McDermott and Wright Dobbs conducted office tours throughout the day in conjunction with FSU’s Math Fun Day and Circus of Physics. On the 23rd, forecaster Lance Franck discussed marine forecasting and buoy observations at the annual NOAA Seminar at MarineMax Marina in Panama City Beach. That same day, forecaster Lauren Nash and Warning Coordination Meteorologist Mark Wool (pictured) staffed a booth at the annual Center for Ocean-Aerospheric Prediction Studies Open House which ran concurrently with the National High-Magnetic Field Lab’s Open House here in Tallahassee. On the 26th, Lance attended the Southeast Prescription Burn and Air Quality Summit in Newton, GA. In March, MIC Tom Johnstone and forecaster Justin Pullin attended the quarterly Florida Region 1 EM Meeting in Den Funiak Springs, FL while Mark attended the Region 2 meeting in Apalachicola, FL. On the 30th, the Mark will be joined by ASA Jennifer Nichols and forecaster Eric Bunker at a day-long preparedness booth in the non-profit vendor area on Park Avenue at the Annual Springtime Tallahassee Jubilee in downtown Tallahassee, FL.