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.

Recent Improvements to our Hydrology Program

By Kelly Godsey

When severe weather threatens, often the potential for flooding from heavy rainfall is a secondary thought in most people’s mind. Flooding is one of nature’s greatest threats and should always be taken seriously, even before heavy rainfall begins. Here at NWS Tallahassee, we have a robust hydrology program that actively monitors current river stage readings and water levels along the Gulf Coast. Gages on area rivers, lakes, and the Gulf Coast are sponsored by partner agencies at the state and federal level. The collaboration and data sharing that exists between these agencies build the framework of how the NWS monitors and responds to flooding across the country.

Over the last year, significant updates have been made to the hydrology program at NWS Tallahassee. Some of these improvements are designed to provide better access and information to our users when flooding threatens. Several new river forecast points have been established with flood levels set to alert the public of an increasing flood threat.

Other new updates to the hydrology program have greatly enhanced services for coastal residents along the Northeast Gulf of Mexico. Starting this winter season, the way NWS Tallahassee monitors and alerts coastal communities of flooding from the Gulf of Mexico will be tied to a series of gages along the coast from Panama City to the Suwannee River Entrance. Flood categories for many of these gages have been established to allow forecasters to better measure and communicate the magnitude of impact when tides run well above normal from strong winter-time storms. Our region has been affected by several notable winter-time “storm surge” events, and this new approach should improve identification of coastal flood events up to 72 hours in advance as well as enhance our users’ access to critical information during times of high water along the coast.

Even when months pass between significant rainfall events in our area, the hydrology team at NWS Tallahassee continues to review and update existing river forecast points, gages, and impact statements to ensure the next flood event will be communicated even better than the last. This next step in enhancing communication of flood threat will come during our next river flood event. Starting December 1st, river flood warnings will transition to a polygon-based warning as opposed to a county-wide warning. This will allow for less cluttering and overlap on our website as well as better depict which portions of a larger stem river, like the Flint River, has exceeded flood stage.
Employee Spotlight:

Toan Tran

Information Technology Officer since August 2012

By Katie Moore & Toan Tran

Q: What sparked your interest in computer science?

A: My interest in computer science was somewhat backward of the norm-work first and then learn later. I graduated from University of Florida with a BS in electronic engineering and started working for Department of Defense (DOD) as an electronics engineer for over six years. However, my then simulation-related projects utilized a lot of computer hardware and software so my position was changed to computer engineer. Thanks to the UAP (University Assignment Program) of the NWS, I completed my Master’s degree in Information Technology in 2005.

Q: How did you get your start in the National Weather Service?

A: Again my weather interest also started from work. One of my DOD projects was working with NASA and Sandia National Laboratory to research how lightning affects a wide range of different objects such as warehouses, airplanes or even space shuttles. This project lasted over two years and I always remembered when we set up several instruments to wait for the coming thunderstorms to collect a myriad of scientific data of the lightning bolts. My interest in weather and NWS came from this project and I applied to ITO jobs when they were first available at WFOs in 2000. I had applied for a number of WFOs and my first NWS job was at WFO Dodge City, Kansas.

Q: What’s a typical day like as an ITO in a WFO? Is it very different from your work at an RFC?

A: Obviously, at work or at home I like to play with computers, particularly restore the classic ones. I still have my first computer, a Commodore 64 with audio tape as storage, which was very high-tech at that time. I also enjoy traveling with my family and doing some outdoor activities.

Q: What’s your favorite part of the job?

A: I really enjoy every aspect of my job. However, my favorite part is working with the varieties of hardware and software challenges which require the troubleshooting and problem-solving skills on ensuring that WFO IT systems are always in great shape. I really feel a sense of satisfaction and pride in helping our users to solve their IT problems.

Q: What’s the most challenging part of your job?

A: There are many challenging parts so it’s very hard to pinpoint which one is the most challenging. First, information technology is changing very fast, so the most challenging part is that I have to update my knowledge and skills all the time. Second, computer hardware and software normally run very well; however, they can stop working anytime and the challenge is fixing them quickly and bringing them back to work as soon as possible.

Q: What do you like to do for fun?

A: As an ITO, I take care of installation, configuration, and software maintenance of new and existing applications. I also provide technical supports to all users and fix software problems if there are any.

To refresh and improve my IT knowledge and skills, I have to read a lot of articles on books/magazines or attend online seminars.

Basically, I don’t see much difference between working with a River Forecast Center (RFC) and WFO in terms of information technology. RFCs use the same AWIPS and almost all other IT equipment; however RFCs tend to use more storage, storing hydrology data into databases and provide large amounts of information mostly to WFOs and other federal and state agencies.

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Recent Office Changes

By Katie Moore & Mark Wool

This past fall, the NWS Tallahassee office updated our conference room. We got new chairs plus extra folding chairs for large groups during full office meetings or tours. We also replaced our old projector with a large television, which is hooked up to the PC in the conference room to display Powerpoint and Webinar presentations large enough for everyone to see clearly. Finally, we swapped out the location of the PC in the room to give users more space when using the workstation. When the conference room isn’t being used for meetings, it is also home to a library of scientific books and journals and can be a quiet work area for training and research. This space also serves as a dining room when we have one of our office holiday luncheons. A few of us are pictured at left enjoying this year’s Thanksgiving feast!
By Mark Wool

Life as a Shift Worker

Most of us that work at the National Weather Service know that we have pretty cool jobs and are grateful to be working in a field that we love. There is, however, one facet of the job that few of us are thrilled about, but must be endured...rotating shift work! National Weather Service Weather Forecast Offices like ours are open 24 hours a day, 365 days a year and most operational personnel in these offices work rotating shifts. At our office, forecaster shifts run from 7:00 AM to 4:00 PM, 2:00 PM to 11:00 PM, and 10:00 PM to 7:00 AM. The latter is the infamous graveyard shift that people generally struggle with the most. Some folks like myself actually have a harder time coming off “mids” and back onto day shifts. It is the constant changing, rather than any specific hours, that presents the greatest challenges to most NWS staff. That means that inevitably we will come to work with less than the desired amount of sleep, which can make our already challenging job even more difficult. Another consideration is that the shift rotation continues regardless of whether it is the weekend or a holiday. Therefore, all shift workers will often have to work holidays and they routinely work many weekends. Our forecaster rotation gives us four weekends off in a row, but the payback is that we work the next six. One advantage of getting weekdays off instead of weekends is that it is often easier to run errands during normal business hours as well as pick children up from school. One thing is for certain, whether you are a morning person or a night owl, shift work in the NWS can be a real challenge.

This Quarter’s Focus:
Our Unique Relationship with Area Universities

By Ron Block & Ryan Walsh

The NWS Tallahassee office (TAE) is tasked primarily with issuing products geared toward the protection of life and property. However, we also focus on collaborative research and the training of future meteorologists. This relationship was the impetus for the 2002 office move from the Tallahassee Airport to the campus of Florida State University. Being co-located with the FSU Department of Earth, Ocean and Atmospheric Sciences provides TAE with unique opportunities to interact with faculty and students. The most visible example involves the training of students. TAE offers a variety of volunteer programs that provide an ideal laboratory for students to learn operational meteorology. (See previous Tallahassee Topics for more details). Some FSU faculty have served their sabbaticals at TAE conducting research and they often bring prospective students for an orientation and current students to witness upper air balloon launches.

TAE has participated with FSU on a myriad of joint research projects blending the talents and facilities of both. For example TAE senior forecaster Ron Block and FSU Professor Henry Fuelberg conducted a three year COMET minimum temperature study of the Tallahassee area. Kelly Godsey, initially as a FSU student, and then as a TAE meteorologist served as the bridge between operations and academia. Other joint projects included the relationship of low level wind direction and sea breeze induced thunderstorms, evaluating global models to better predict tropical cyclones, lightning intensity and climatology, land falling hurricanes and their ability to generate tornadoes, and the development of precipitation climatologies for the NWS offices in the southern U.S.. Professor Fuelberg states collaborating with TAE “has been invaluable for me and my students. We get them to work on topics that lead to improved forecasts not just theoretical concepts. They keep us grounded in what really matters to the public, better forecasts, and some of my students have volunteered at TAE and gained valuable job skills not covered in the classroom”.

Ron also serves as an advisor and evaluator for the NOAA-sponsored Hollings Scholarship awarded to highly qualified meteorology and environmental science students. Currently four FSU students are participating in this much sought after program. TAE staff teach a course at FSU every spring semester introducing students to operational meteorology and NWS operations. We also conduct a Wednesday morning office weather briefing allowing FSU faculty and students to become more familiar with NWS operations. TAE staff have served on graduate thesis committees and participated as guest speakers and in joint outreach projects with the FSU chapter of the American Meteorological Society and National Weather Association. Climate focal point Tim Barry and other meteorologists routinely interact with the State Climatologists at Florida Climate Center (FCC) at Innovation Park (which is associated with FSU, FAMU, and TCC). Melissa Griffin, Assistant State Climatologist remarks that “TAE has partnered with FCC on a variety of outreach and research projects which includes monitoring drought conditions thereby providing direction to the weekly U.S. Drought Monitor, participating in the Florida Collaborative Rain and Hail Study (CoCoRaHs) which assists in monitoring heavy rainfall events and in predicting flooding, working with volunteer weather observers across Florida, Georgia and Alabama to ensure the quality of reported data, and helping to examine historic flood events”.

TAE also maintains close ties with Florida A&M and Tallahassee Community College (TCC) supporting Hollings Scholars, providing facilities for student research and conducting office tours discussing the duties and responsibilities of a forecaster as well as careers in meteorology. Maureen Haberfeld, TCC Professor of Earth Science, Geology and Oceanography praises the tours noting that “the students get an opportunity to see how the concepts they learn about in the classroom relate to the weather forecasts they hear every day. Talking with a forecaster gives them an appreciation of the role of the NWS and an insight into the science that is used to understand atmospheric processes”. The mutually beneficial TAE-academic community bond is expected to grow even stronger in future years.
Outreach & Diversity Efforts
By Ron Block & Jeff Evans

This issue marks the fifth publication of the Tallahassee Topics. The next Heritage activity is planned for February to commemorate African American History month and will be preceded by a Caribbean, African, and Creole pot luck.

During September, Jeff Evans manned a booth at the Tift County, Georgia Emergency Fair, led two office tours for the Thomas County, Georgia First Lego Program for middle school students and provided a tour for the Leon County, Florida Life Long Extravaganza Senior Citizens Program. In October, he discussed meteorology at the Blakely, Georgia Young Farmers Group. During November, we staffed a booth at our largest outreach event of the year, the annual eleven-day North Florida Fair (pictured below). At the booth, ten NWS Tallahassee (TAE) staffs were paired with FSU Meteorology students and other volunteers to promote weather safety. Ron Block hosted the Tallahassee Community College science classes for an evening learning about office operations and responsibilities as well as careers in the NWS. Jeff discussed tornado safety with students at the Panama City, Florida First LEGO activity. Jane Hollingsworth and Mark Wool gained a first hand view of how weather impacts sports events when they visited the FSU athletic department facilities and briefed the FSU Emergency Management on expected weather during the FSU-Miami football game.

During the fall semester, the office continued to host two undergraduate and four graduate FSU students who have assumed increasing responsibilities assisting the forecasters in their duties. TAE also hosted a high school senior, Catherine, as part of the Externship Program. She shadowed the staff learning the operations of a NWS office and also helped out at the fair (pictured at right with Jeff Evans).

Climate Recap for Autumn
By Tim Barry

The climate for Tallahassee during the 3 month period of September through November 2013 saw temperatures that were warmer than normal. The average temperature was 71.3°F, 2°F above normal. The highest temperature recorded at the Tallahassee Regional Airport was 96°F on September 15th and the lowest was 30°F on Thanksgiving morning, November 28th which was our first freeze of the fall season. On average, Tallahassee experiences its first freeze on November 20th. There were no temperature records tied or broken.

Autumn is climatologically Tallahassee’s driest season with October and November being the 2nd and 4th driest months respectively. However, after a very wet summer, this past fall was drier than normal. We normally see (TAE) staffers were paired with FSU Meteorology students and other volunteers to promote weather safety. Ron Block hosted the Tallahassee Community College science classes for an evening learning about office operations and responsibilities as well as careers in the NWS. Jeff discussed tornado safety with students at the Panama City, Florida First LEGO activity. Jane Hollingsworth and Mark Wool gained a first hand view of how weather impacts sports events when they visited the FSU athletic department facilities and briefed the FSU Emergency Management on expected weather during the FSU-Miami football game.

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Outlook for Winter
By Tim Barry

Looking ahead to winter (December through February), there continues to be a lot of uncertainty in what to expect. The current El Nino Southern Oscillation (ENSO) cycle across the eastern Pacific is neutral and should remain neutral at least through the winter. This is neither El Nino nor La Nina. ENSO-neutral conditions have little or no impact on the weather across our region of the country during winter. The latest Climate Prediction Center outlook for this winter calls for equal chances of experiencing above, below or near normal temperatures and an enhanced chance for below normal rainfall for our area. The average temperature for Tallahassee during winter is 53.0 degrees and the average rainfall is 13.09”.

Hurricane Season
By Tim Barry

The 2013 Hurricane season officially ended on Nov 30th. There were 13 named storms, but only two, Ingrid and Humberto, became hurricanes – the fewest hurricanes since 1982. Humberto became a hurricane on Sep 11th at 5 AM AST, making it the 2nd latest first hurricane on record for the Atlantic Basin. The latest first hurricane on record Gustav (2002) which became a hurricane on Sep 11th at 11 AM AST. The average Atlantic hurricane season produces six hurricanes, of which three are “major.” Only one storm, Tropical Storm Andrea, made landfall in the United States. Andrea was a strong Tropical Storm with maximum winds of 65 mph and made landfall near the town of Steinhardt, FL on June 6th. The 2013 hurricane season will rank as the fifth least-active year since 1950, in terms of accumulated energy of tropical storms and hurricanes in the Northern Atlantic Basin.