Sterling Reporter

Volume 9, Issue 3 | Baltimore MD/Washington DC Forecast Office | Fall 2010 Issue

Top Photo: Shelley Ginger
Bottom Photo: Keith Lampher

SAVE THE DATES!

April 30 - May 1, 2011: NWS Baltimore MD/Washington DC Open House in Sterling, VA

May 3, 2011: East Coast Hurricane Awareness Tour at the Patuxent River Naval Air Station in Lexington Park, MD

MIC's Corner

By, James E. Lee
Meteorologist in Charge

Looking back at the past year weather-wise as 2010 winds down, it has been a very remarkable one for our forecast area. The year 2010 gave us record breaking seasonal snowfall, two life-threatening February blizzards, flooding of the Potomac River that hasn't been seen for 15 years, record breaking heat during the summer, and then the torrential rains along the western shore of the Chesapeake Bay from the remnants of Tropical Storm Nicole.

Even with the challenges that Mother Nature threw at us this year, I am happy to report that this has been the most successful year of our office since my tenure as Meteorologist-in-Charge in September 2004. Our office met or exceeded performance goals in 8 of the 9 areas that are reported to Congress. This excellent performance is a testament to our hard-working staff, not only in their abilities as weather forecasters, technicians, and support staff, but also in their "service above self" approach to their vocation and their belief in our agency's mission.

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Taking Snowfall Observations

By, Calvin Meadows, Observations Program Leader

As the headline says…winter is right around the corner. In fact, some of you at higher elevations may have seen a few flakes already. Last winter not withstanding, snowfall in the Mid Atlantic tends to be rather irregular, so we observers forget the fine details of proper snow measuring procedures from year to year. Now is the time to check your kit and review the snow measurement guidelines. "Measuring Snow" is a 23 minute video produced for the National Weather Service by the Department of Atmospheric Science at Colorado State

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Taking Snowfall Observations *(continued)*

University available at http://madis-data.noaa.gov/snow_video.html and a text edition of "Snow Measurement Guidelines for National Weather Service Cooperative Observers" is available at http://www.nws.noaa.gov/om/coop/snowguid.htm .

Before it snows, remove the funnel and inner measuring tube of your rain gage so that the overflow can more accurately catch the snowfall. Put out and mark the location of your snow board(s) with a flag or some other indicator so it can be easily found after a new snowfall. The snow board(s) should be located in vicinity of your station in an open area (not under trees, obstructions, or on the north side of structures in the shadows). Locating your snow board on your deck or patio is not recommended. Proximity of the snow board to the house will distort your snow measurement.
Snow boards provide a standard surface for measuring fresh snowfall. They may be made from thin lumber or other light material that will not sink into the snow, yet be heavy enough not to blow away. The board should be painted white. A 16" x16" snow board will allow cutting more than one snow sample.

Official National Weather Service Cooperative Weather Observers use specially designed snow measuring sticks. For those of you who are not official NWS Cooperative Observers, a ruler or yard stick will do.

Three types of snow measurements are of particular interest to us:

- Snowfall which is the depth of newly fallen snow (snow having fallen since the previous scheduled time of observation), and is reported in inches and tenths.
- Snow Depth which is the total depth of snow on the ground (both new and old), and is reported to the nearest whole inch.
- Water Equivalent is the actual water content of the snow that has fallen since the previous day's observation and is reported in inches, tenths and hundredths.


Snowboards at NWS Baltimore/Washington

Measure the snowfall by inserting your snow measuring stick (or yardstick) vertically into the snow until the stick rest against the snow board. Read result to the nearest tenth of an inch. Clear your snowboard immediately after recording your measurement and place the snow board atop the fallen snow. Push the board into the snow just far enough that the top of the board is level with the top of the snow. You can measure the snow as frequently as you like but **do not clear your board more often than four times in a 24 hour period**. Clearing the snow board more frequently will unduly inflate your snowfall numbers. Cooperative Weather Observers should, if possible, make 6 hourly snowfall measurements based on their scheduled observation time.

Snow Depth, or Snow on the Ground measurements are quite similar to Snowfall measurement. On your second snow board insert your snow measuring stick or yardstick vertically into the snow until the stick rests against the snow board. Read the result to the nearest whole inch. If you do not have a snow board for this, take five to seven measurements at representative locations at your station. Drop the lowest and the highest readings then average the remaining readings to obtain your Snow Depth. Report Snow Depth to the nearest whole inch, rounding up when one half inch increments are reached; 0.4 and less get reported as a trace (T) and 3.5 gets reported as 4 inches.

A Water Equivalent measurement is simple but can be time intensive. This measurement is taken once a day at your specified time of observation. First, carefully pour a measured amount of warm water into the overflow can with the snow. Let the snow melt. Once melted, pour the resulting water into the measuring tube and measure the total amount of water. Subtract the amount of warm water you added to determine the water equivalent of the snowfall.

That's the quick and dirty on measuring snow. Please review the "Measuring Snow" video and the "Snow Measurement Guidelines" for additional details.

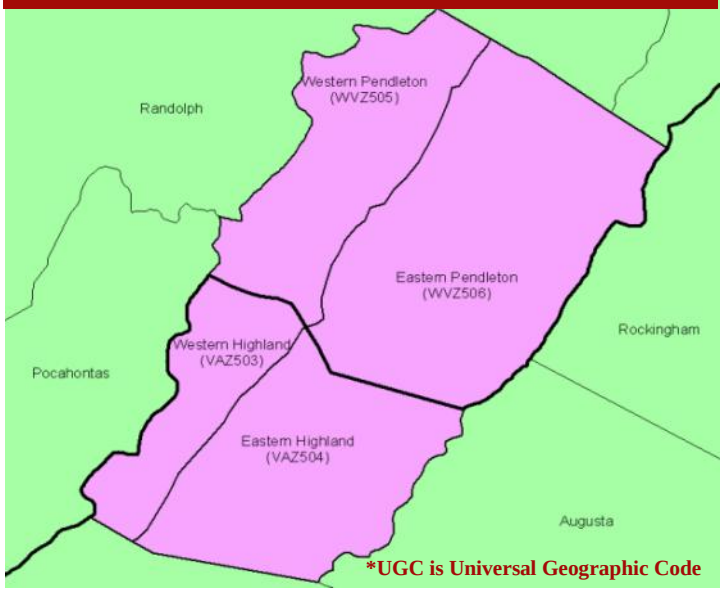
...Changes for the Upcoming Winter Season...

Highland and Pendleton County Public and Fire Weather Zones Split

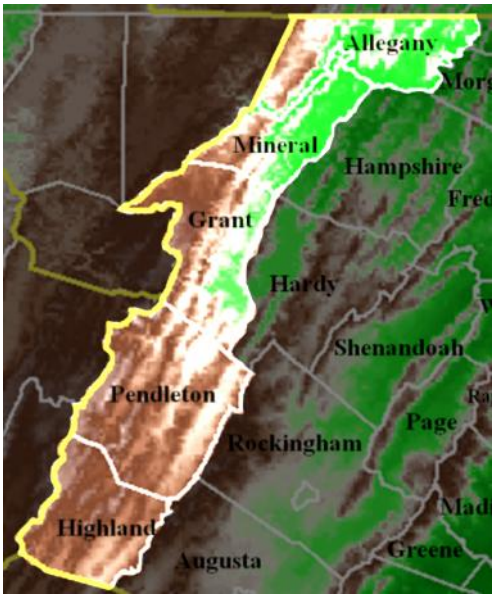
Currently, the forecast zones for Highland and Pendleton counties encompass the higher elevation areas along and around the Allegheny Front Ridge in the west...as well as the more populated lower lying areas in the east. Three US Routes pass through these areas including: US-250, US-220 and US-33.

Effective November 15, 2010 at 1 PM EST, Highland and Pendleton counties will be split into western and eastern forecast zones. The split is based on two very distinct climate regimes. This will improve forecast and warning services in these two counties. The divide will follow the ridgeline of North Fork Mountain south through Pendleton County...continuing along the ridgeline of Monterey Mountain and Back Creek Mountain in Highland County.

EFFECTIVE: NOVEMBER 15, 2010 AT 1 PM EST



New Zone Name	New UGC	Old Zone Name	Old UGC
Western Highland	VAZ503	Highland	VAZ021
Eastern Highland	VAZ504	Highland	VAZ021
Western Pendleton	WVZ505	Pendleton	WVZ054
Eastern Pendleton	WVZ506	Pendleton	WVZ054



Winter Storm Watch/Warning/Advisory Criteria Snowfall Thresholds Increase Along the Allegheny Front

EFFECTIVE: NOVEMBER 4, 2010 AT 10 AM EST

Counties Affected: Allegany, Mineral, Grant, Pendleton & Highland

Snow accumulation thresholds are being increased due to the frequency of occurrence and magnitude of snowfall accumulations along the Allegheney Front. These new values have been coordinated with the local Emergency Management Agencies.

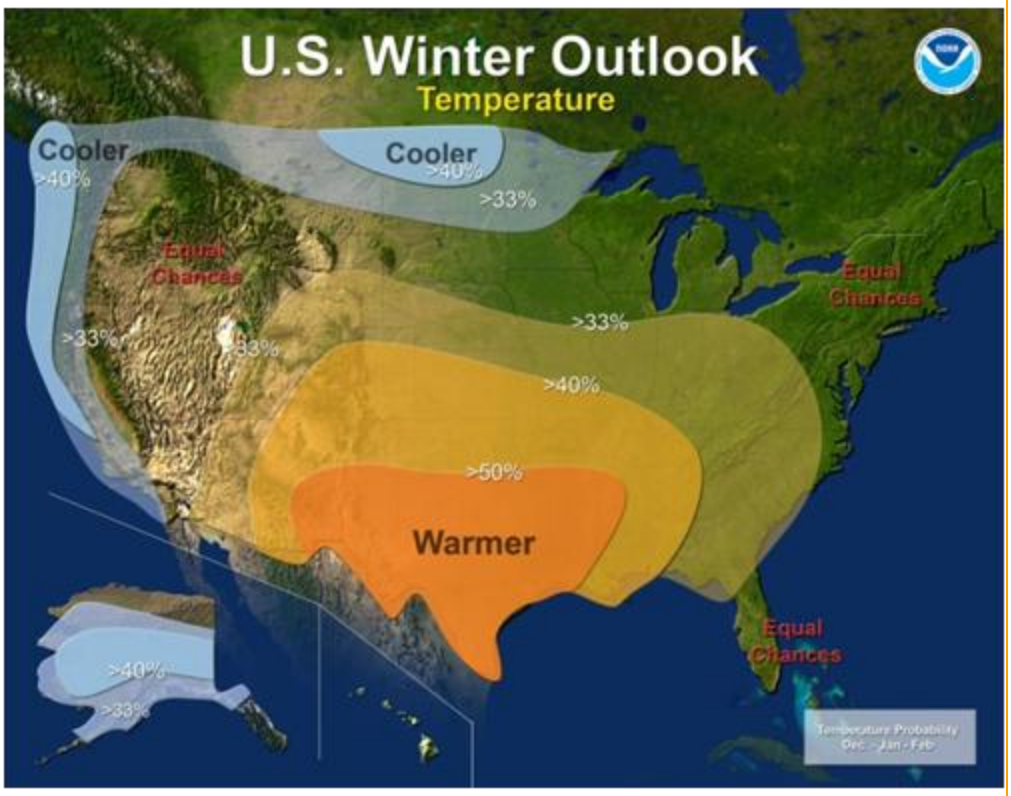
Winter Weather Advisory:
New Threshold: 3 inches of snow in 12 hours.
Old Threshold: 2 inches in 12 hours.

Winter Storm Watch & Winter Storm Warning:
New Thresholds: 6 inches of snow in 12 hours *OR* 8 inches of snow in 24 hours.
Old Threshold: 5 inches of snow in 12 hours or 7 inches of snow in 24 hours.

2010-2011 Winter Outlook

By, Jared Klein
General Forecaster

The National Oceanic and Atmospheric Administration/Climate Prediction Center (NOAA/CPC) 2010–2011 Winter Outlook shows the Mid-Atlantic region placed in a transition zone between a weak signal for above normal temperatures (centered over southern and central parts of the country) and equal chances for above, near or below normal temperatures. Meanwhile, the winter precipitation outlook shows equal chances for being above, near or below normal in the region. Although some may think a forecast of equal chances is not very useful, it does tell important information. A prediction of equal chances implies that the probability of most likely category (above, neutral or below) could not be determined because the predictive tools used to construct this forecast



was not able to show a strong enough seasonal climate signal to shift the statistical probabilities one way or another.

La Niña, which is a climate phenomenon characterized by unusually cool ocean temperatures in the tropical Pacific Ocean, is expected to play a key role in influencing this upcoming winter's climate across the United States. The current La Niña episode is expected to peak sometime in the late fall or early winter and last through the rest of the winter.

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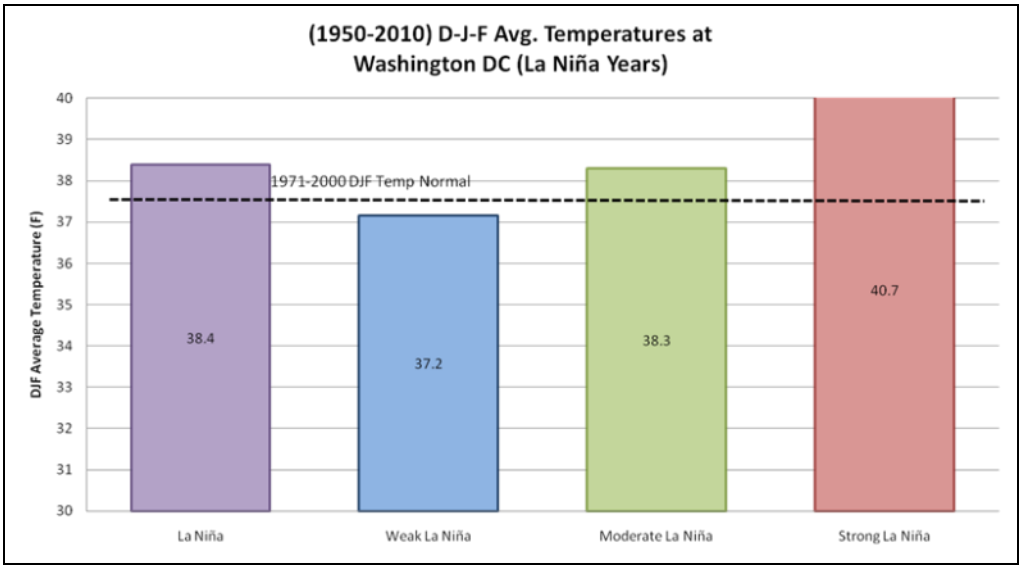
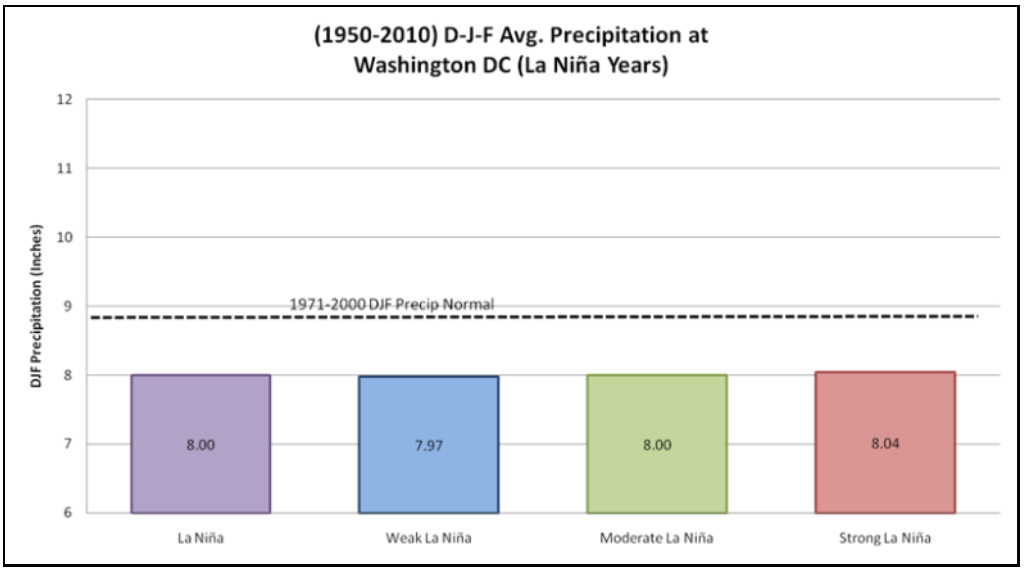
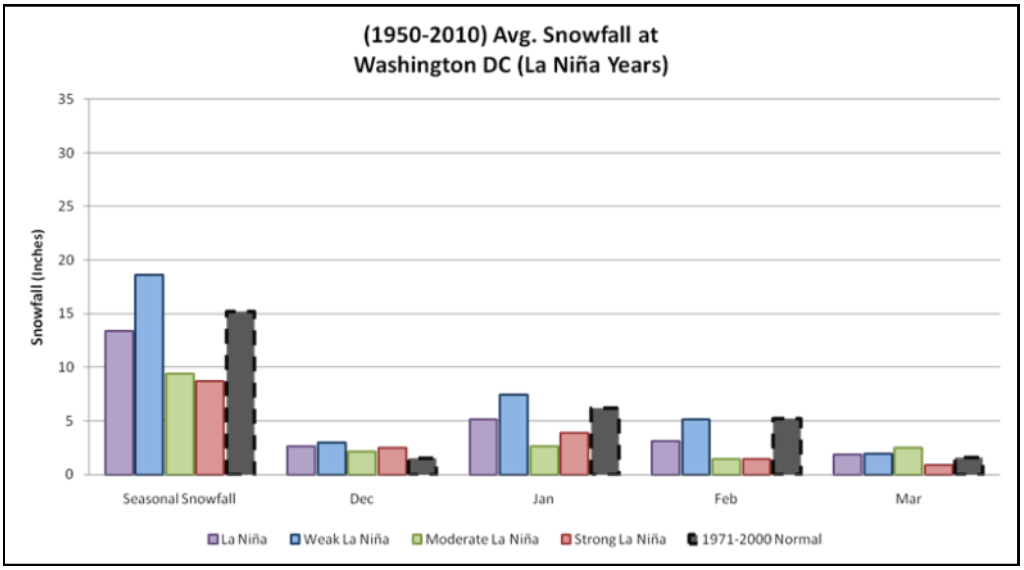
Winter Outlook *(continued)*

Approximately 20 winters since 1950 were influenced by a La Niña episode. The figures on this page are composites of average December, January, and February (DJF) temperatures and precipitation, as well as seasonal snowfall at Washington, D.C. Each figure is broken down by the strength (weak, moderate and strong) of the La Niña episode. For Washington D.C., temperatures generally averaged near normal during La Niña winters. However, the stronger the La Niña episode, the warmer temperatures were on average. Winter precipitation averaged drier than normal during all La Niña intensities. Seasonal snowfall during La Niña winters averaged below normal, especially during moderate and strong episodes. The above normal snowfall seen in weak La Niña episodes was weighted heavily by the 6–8 January 1996 snowfall, when 17.1 inches of snow was recorded at Washington D.C.

For moderate to strong La Niña episodes (like the one expected in the upcoming winter), above normal temperatures and below normal snowfall indicated in the abovementioned composites could in part be due to a westward shift in storm tracks that is often seen during La Nina winters. More storms tracking to the west of the Appalachians would imply the Mid-Atlantic region being located on the warmer side of storms, resulting in more mixed or rain events for the area and less snow events.



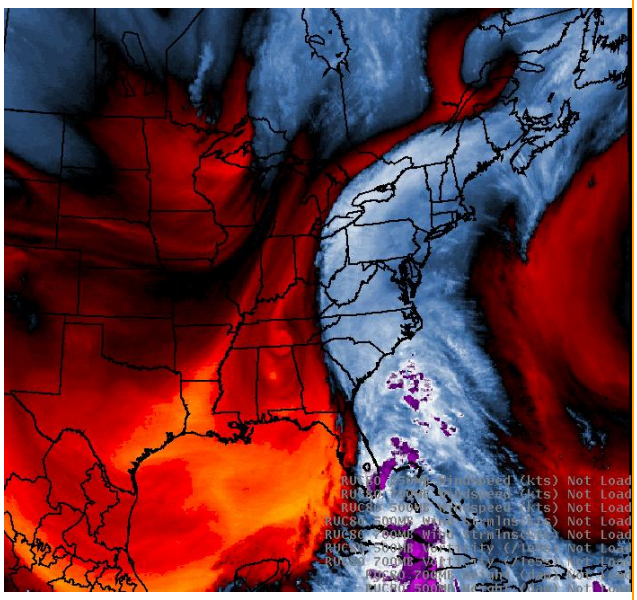


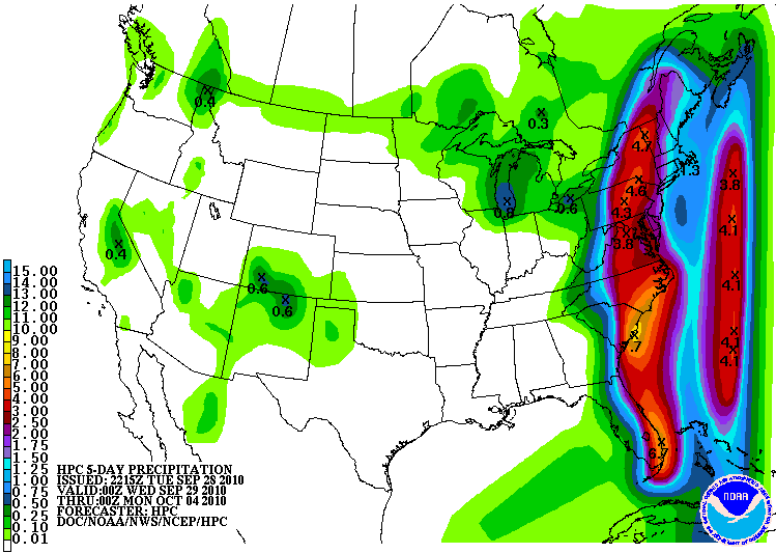


Remnants of Tropical Storm Nicole Bring a Deluge to the Mid Atlantic

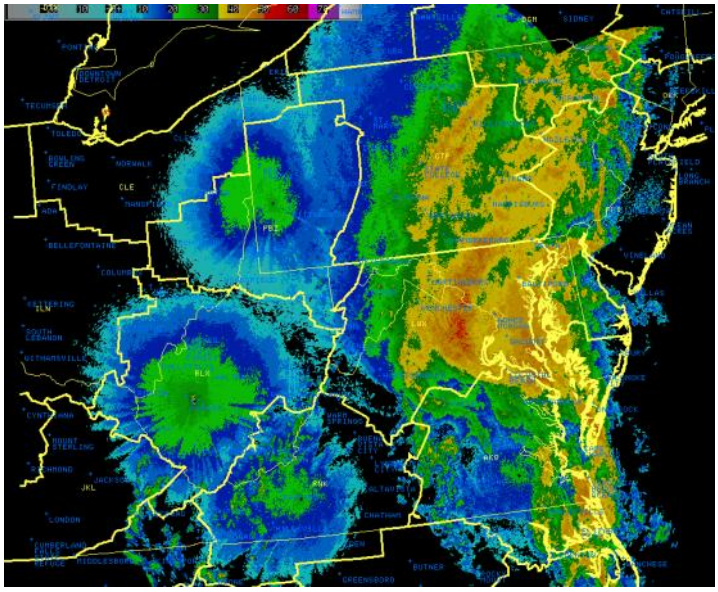
By, Stephen Konarik
General Forecaster

Despite drought conditions across much of the Baltimore/ Washington National Weather Service Forecast Office's area of responsibility through the latter portions of summer, the stage was set for flash flooding at the end of September. Early in the last week of September, a rich plume of tropical moisture, originating from the western Caribbean Sea, spread northward along the east coast of the United States. The picture to the right depicts a water vapor image of the moisture streaming north out of the tropics into the Mid-Atlantic. As this moisture interacted with a stationary boundary across Virginia, widespread moderate to heavy rain fell across the region September 27-28. Rainfall amounts of 2 to 4 inches caused minor flooding problems, but more importantly, saturated ground conditions through much of the Mid-Atlantic.





The corridor of tropical moisture continued up the Atlantic seaboard for several days. Tropical Storm Nicole developed over the northwest Caribbean Sea. Though Nicole dissipated shortly after crossing Cuba, her associated moisture was funneled into another area of low pressure that developed along the Carolina coastline. By Wednesday morning, September 29, a Flash Flood Watch was posted for the area, as computer models projected widespread rainfall totals Thursday and Friday of 2-4 inches or more. The picture to the left is an image of the NOAA Hydrologic Prediction Center's forecast 5 day rainfall totals, showing a corridor of red (3-4" rain) along the entire eastern seaboard.



Bands of heavy rain began to rapidly move into northern Virginia and Maryland just after midnight on Thursday morning, September 30, and Flash Flood Warnings were issued for portions of the area shortly thereafter. In total, 13 Flash Flood Warnings were issued over a 24 hour period, with over half of the Baltimore/Washington's County Warning Area being placed in a Flash Flood Warning at some point. After the initial low pressure passed north of the area Thursday afternoon, producing up to 8 inches of rain across portions of Maryland, a brief lull in precipitation occurred early Thursday evening, before the remnant circulation of Nicole (right) moved up the Delmarva Peninsula, reinvigorating heavy rainfall. By Friday morning, storm total rainfall exceeded one

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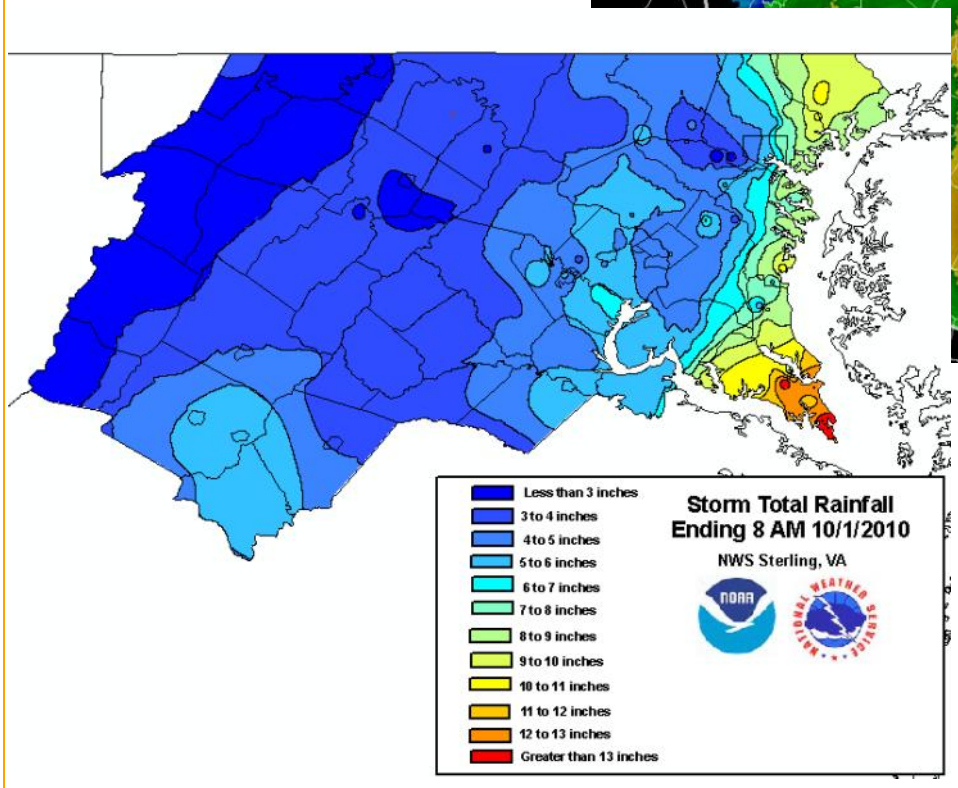
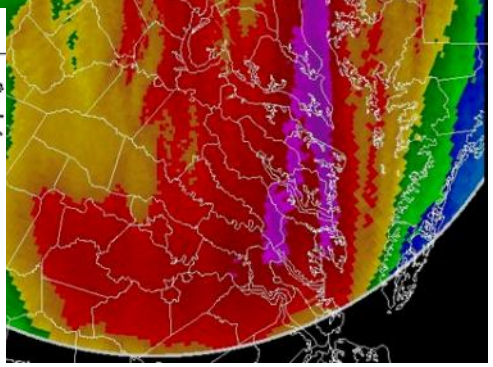
Deluge from Nicole *(continued)*

foot across many area along the shore of the Chesapeake Bay, with reported measurements of over 14 inches in several locations in St. Mary's County, MD.

The pictures to the right and below an analysis of rainfall reports and radar estimated precipitation totals through the morning of October 1.





The effects of this magnitude of rainfall were significant, with over 50 reports of flash flooding across areas east of the Blue Ridge Mountains. Hundreds of roads were closed due to high water across the area, and high water rescues and roadway washouts were frequent. The images below exemplify the flash flooding observed across the area. Thankfully, there were no reported injuries or deaths. From a historical perspective, daily rainfall records were set at all three major airports in the area. Washington Reagan National Airport's 4.66" and Washington Dulles International Airports' 4.74" on Sep 30 were both the 3 highest daily rainfall amounts ever recorded in the month of September. At Baltimore-Washington International, the rainfall amount of 6.02" on September 30 was the 2nd highest daily total ever recorded, with on August 23, 1933 receiving a higher amount in a single calendar day.

Photo By: Jed Kirschbaum, Baltimore Sun
Stemmers Run at Golden Ring Road Near Essex, MD

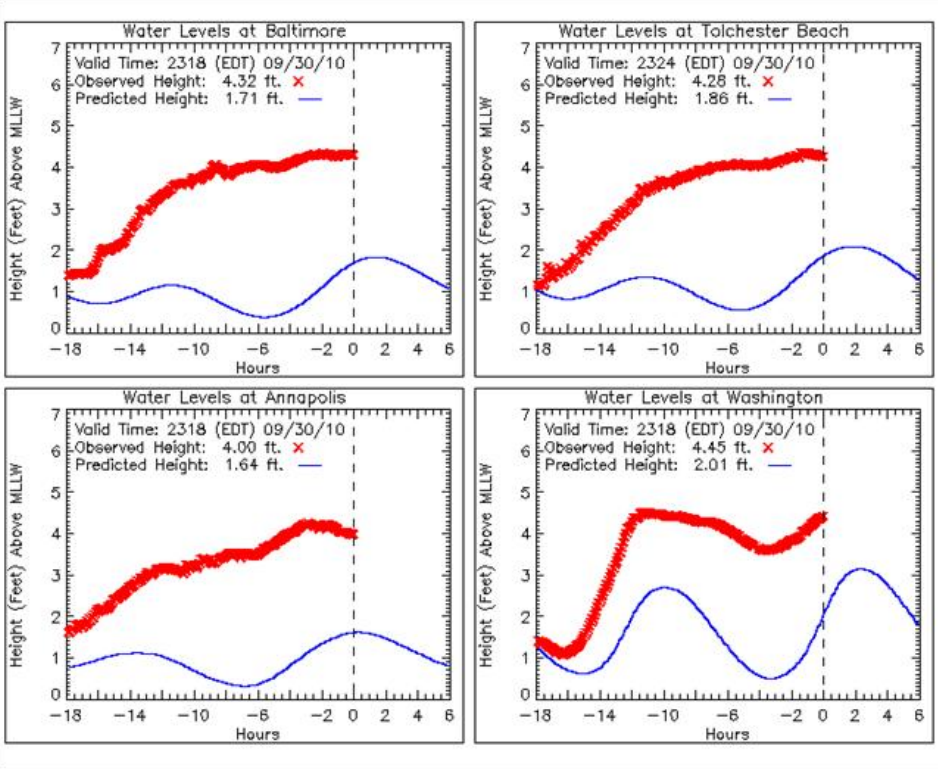
Photo By: NBC4, Washington DC
Sinkhole Near Severn, MD

Coastal Communities Ended September with Tidal Flooding

By, Howard Silverman
Senior Forecaster

The storm system that originated from the remnants of Tropical Storm Nicole not only led to flash flooding, but also resulted in water inundation along the coast.

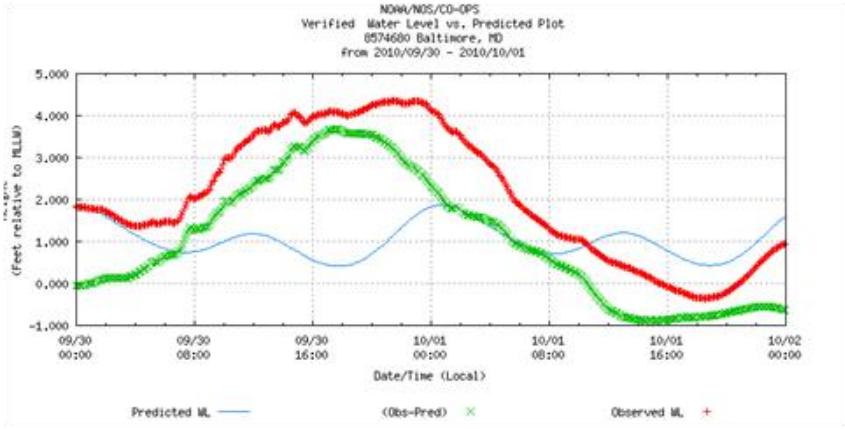
Water levels in the Chesapeake Bay and tidal Potomac River were running high since September 27th, when a weak area of low pressure moved northward up the Appalachians. While that storm was not all that impressive, the gusty southerly winds ahead of it pushed water into and up the Chesapeake Bay, thereby contributing to high water levels. Most of that water remained in the estuary at the start of this event.



A prolonged period of east wind commenced on Wednesday evening, September 29, which reinforced these departures. Water levels peaked Thursday afternoon and evening at 3 to 4 feet above astronomical normal at Baltimore City and Annapolis (*see diagram at left*). By this point winds had turned south, effectively forcing a lot of the water in the Bay to its northernmost point.

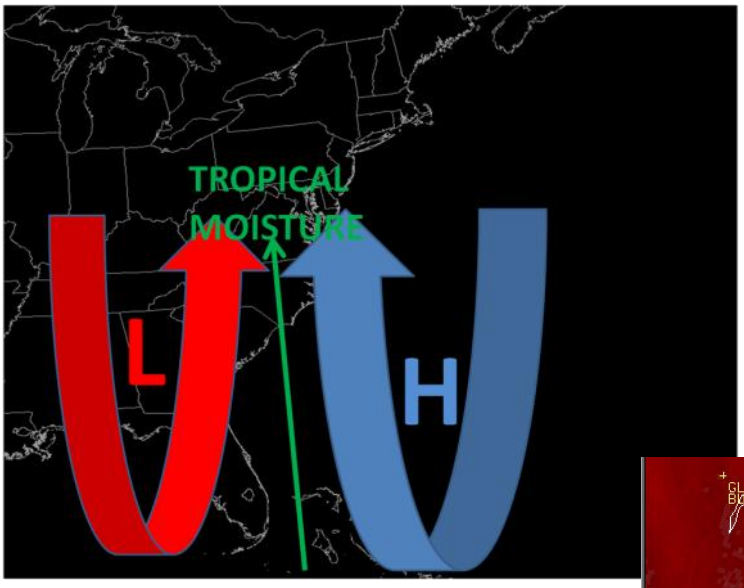
Not surprisingly, Baltimore County received the greatest impact. An extensive area of coastal southeastern Baltimore County, including Bowley's Quarters, Miller's Island, and Turner, Maryland experienced tidal inundation during the afternoon and evening of September 30th. Reports of flooding were also received from Annapolis and Havre de Grace.

Winds shifted to the west between 9 and 11pm, and increased from the northwest on Friday. These winds steadily drove water out of the Bay. Meteorological effects overcame the normal tide cycle; there was no observed high tide during the day Friday. (*See red line on image at right*) Instead, water levels just kept dropping, thus ending this event from a coastal perspective.



Remnants of Tropical Storm Nicole Spawn a Tornado

By, Brian Lasorsa
General Forecaster



An unusual weather pattern set up on the 30th of September when an abundant amount of tropical moisture was drawn into the Mid-Atlantic. High pressure off the East Coast and low pressure over the Southeast pulled deep tropical moisture across the region (see figure to the left). At the same time, the remnants from what was Tropical Storm Nicole were drawn into these systems. The deep moisture caused limited instability which led to the development of showers and thunderstorms. Strong winds just a few thousand feet above the surface caused the thunderstorms to rotate, which is a sign of possible tornado development.

There was a report of one tornado that was about two miles east of Lake Shore in Anne Arundel County Maryland. The location of the tornado was close to the Chesapeake Bay. This comes as no surprise since low-level wind interactions with land and water are known to cause more spin in thunderstorms. The estimated wind speed with the tornado was 80 mph, which rates as an EF-0 on the Enhanced Fujita Scale. The tornado was responsible for about ten large trees that were blown down along with minor damage to shingles and siding of a few homes. Power was also knocked out in the community.

Record Heat

By, Jared Klein
General Forecaster

Records are meant to be broken, but not as frequent as climate records have been falling so far this year in the Washington D.C.-Baltimore area. After the record snowfall this past winter, an unprecedented warm stretch that started this spring has continued all the way through the summer and even into the beginning of fall.

Washington D.C.

After Washington D.C. recorded their second warmest meteorological spring (60.5F; defined as March–May), the 2010 meteorological summer (defined as June–August) was the warmest on record. Temperatures during the 2010 summer months averaged 81.3F at Washington D.C., which were over 1F warmer than the previous warmest meteorological summer on record of 80.0F in 1980. The average temperature this past summer was 4.3F above the 1971-2000 normal for the summer.

Breaking it down by month, June 2010 (80.6F) was the warmest June on record. July 2010 (83.1F) was not only tied for the warmest July, but for the warmest of any month (tied with July 1993) on record. August 2010 (80.2F) was the 9th warmest August on record at Washington D.C.

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Record Heat *(continued)*

Baltimore, Maryland

The 2010 summer (79.3F) was the warmest on record for Baltimore, breaking the previous warmest summer on record of 79.1F in 1943. The average temperature this past summer was a remarkable 5.0F above the 1971-2000 normal for the summer.

Baltimore experienced the second warmest June (78.9F; second to 79.8F in 1943) on record, followed by a tie for both the warmest July (81.5F; tied with 1872 and 1995) and the warmest of any month on record. While August 2010 did not rank in the top echelon of warmest Augusts on record, it still remained well above normal.

Dulles, Virginia

At Dulles, the warmest meteorological spring (58.6F) on record was proceeded by the warmest meteorological summer (77.8F) on record. The 2010 summer months of June–August averaged 1F warmer than the previous warmest meteorological summer on record of 76.8F in 2007 and 4.1F above the 1971-2000 normal.

June 2010 (76.8F) was the warmest June on record, while July 2010 (79.5F) was tied with 2003 for the second warmest July on record. August 2010 (77.0F) was tied with 1991 for the 11th warmest August on record.

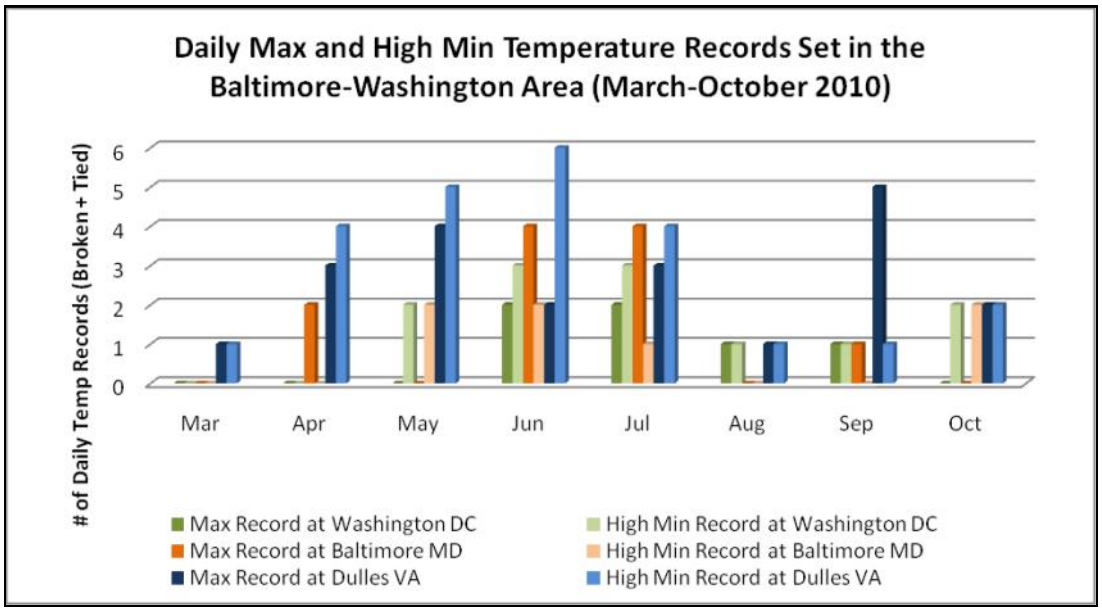
90- and 100- Degree Records

The high incidence of temperatures in the 90s and 100s during the spring, summer and fall is just another indication of how hot it was this year. The temperature reached or exceeded 90F on 59 days (47 of the 59 in meteorological summer) so far this year at Baltimore and 58 days (44 of the 58 in meteorological summer) for Dulles, which both broke their respective climate records for the most number of 90-degree days in a calendar year. The previous record number of 90-degree days was 54 in Baltimore and 55 in Dulles. Washington D.C. tied 1980 for the most number of 90-degree days in a year with 67 (52 of the 67 in meteorological summer) so far this year.

The mercury reached the century mark on seven days this year at Baltimore, which ties 1988 and 1930 for the most number of 100-degree days in a calendar year. Washington D.C. and Dulles respectively recorded triple digit temperatures on four and two days this year. It's very likely these records will stand since there has never been an instance of 90F or more during the months of November and December.

Fallen Daily Records

A look into the number of daily maximum and high minimum temperature records tied or broken only begins to place this unusual hot period from March to October 2010 into a historical context. Baltimore and Washington D.C. each tied or broke 18 daily temperature records (defined here as either maximum temperature or high minimum temperature) during the March–October period. Twelve of those temperature records were set during the summer months for Washington D.C. and 11 for Baltimore. For Dulles, a total of 45 daily temperature records (21 maximum temperatures and 24 high minimum temperatures) were set during the March–October period. Seventeen out of the 45 total temperature records were set during the summer months.



Note: These records are preliminary until they are quality controlled by NOAA's National Climatic Data Center over the next few months. Official temperature records date back 126 years to 1884 at Washington DC, 118 years to 1892 at Baltimore and 48 years to 1962 at Dulles.

Prince Georges County Becomes StormReady

By, Christopher Strong
Warning Coordination Meteorologist

On Tuesday September 21, 2010, Warning Coordination Meteorologist Chris Strong headed to Prince George's County in central Maryland. The reason was to celebrate Prince George's recognition as a StormReady county by the Maryland StormReady Advisory Board and the National Weather Service. Reggie Parks, Director of Emergency Management for the county, worked tirelessly with the National Weather Service to ensure Prince George's (with more than 800,000 residents) is ready for all weather events.

Chris met up with Prince George's County Office of Emergency Management, as well as Richard Muth - Director of the Maryland Emergency Management Agency, at the County Council meeting for the presentation. At the meeting, the National Weather Service presented County Council Chairman, Thomas Dernoga, and County Executive Jack Johnson with a letter of recognition, a certificate, and two StormReady street signs to be placed at entrances to the county.

In order to be recognized as StormReady, a county must strengthen their ties with their local National Weather Service office, be able to disseminate weather alerts quickly, and train their citizenry on how to respond to the myriad of weather threats we get here in the Mid-Atlantic States. Prince George's most recently hosted a winter weather class in September, and they have been very proactive in working with the National Weather Service to improve weather services and community response in the county.

No county will ever be storm proof, but thanks to the work of Reggie Parks and Prince George's County Office of Emergency Management in attaining StormReady recognition, Prince George's County Maryland will be well prepared for whatever weather threats come their way in 2010 and beyond. Congratulations!

StormReady Sign Posted along Adelphi Road Photo Courtesy: Prince Georges County

MIC's Corner *(continued)*

Two long-time Baltimore/Washington Weather Forecast Office staff members will be retiring at the start of the New Year. Electronics Technician Byron Brooks and Hydrometeorological Technician Jackie Hale will both retire from Federal Service in January 2011. I want to thank both Byron and Jackie for their contributions to the NWS, and I wish them the best in their next pursuits.

Finally, for your long range planning, there are two important dates coming up in Spring 2011 that I want you to put on your calendar to consider attending: First, our 3rd Biennial Open House will be held April 30-May 1, 2011, at our Weather Forecast Office in Sterling, Virginia. This event will be followed two days later with the 2011 East Coast Hurricane Awareness Tour to be held on May 3, 2011, at the Patuxent River Naval Air Station in Lexington Park, Maryland. The NOAA Hurricane Hunter Aircraft will host tours, along with the aircraft crew members, the National Hurricane Center Director, and members of the Baltimore/Washington Weather Forecast Office staff will be present at this public event.

If you have any questions, feel free to call me at 703-996-2200, extension 222, or email me at James.E.Lee@noaa.gov.

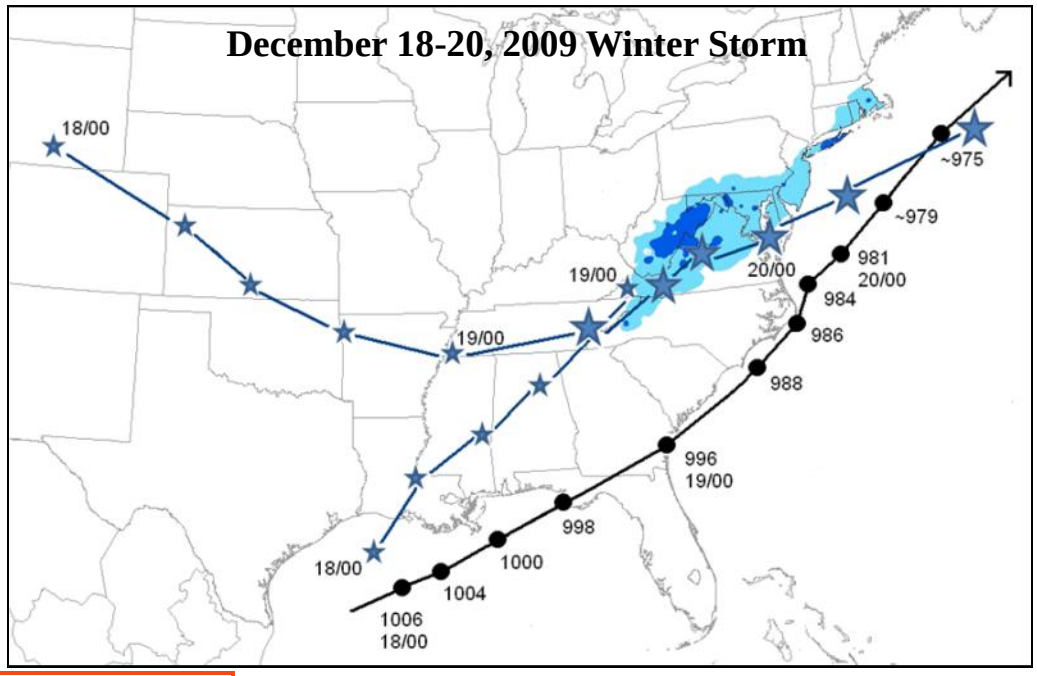
Forecaster Does Case Study on Two 2009-2010 Winter Storms

By, Bryan Jackson
General Forecaster

From September 27-30 I attended the 17th Conference on Satellite Meteorology and Oceanography in Annapolis, MD. This was an excellent opportunity to see the latest research in operational and experimental satellite systems as well as development on future systems such as the Geostationary Operational Environmental Satellite-R series (GOES-R) program. At the conference I presented a poster from my case study on the two largest winter storms from the 2009-2010 winter; from December 18-20 and February 05-06.

The following is from the introduction of the extended abstract of this project:

The weather patterns leading up to and through the 18-20 December and 05-06 February storms were rather similar. During the 2009-2010 winter, a moderate to strong El Nino resulted in a very active southern jet stream. Also, during both cases the North Atlantic Oscillation (NAO) was in a negative phase with a strong ridge over Greenland and a deep trough over the Canadian Maritimes. This blocked pattern enabled northern and southern jet streams to phase over the eastern CONUS, allowing upper level northern stream energy to translate east to a coastal low across the southern Mid Atlantic. The location of this translation and the resultant forcing, along with abundant moisture, aided in the production of remarkable snowfall over the central Mid Atlantic. The key difference between the cases is the amplification of the jet streams. The more amplified February case had more intense jet streaks and much more available moisture and forcing, and thus greater snowfall. The more meridional nature of southern stream as it entered the CONUS in February also allowed a difference in the timing and completion of phasing between the two storms. Where the December storm phased over the eastern Tennessee Valley, allowing the already developed surface low to continue to track northeast along the coast (above), the February storm had a more progressive and divergent southern stream that tracked north into the Midwest ahead of the northern stream, leading to an incomplete phasing and a more complicated west-to-east storm track (picture next page). The posi-



Legend

Blue Stars: 6 Hour Tracks of the 500 hPa Vorticity Maxima

Black Dots: 6 Hour Tracks of the Surface Low Center

Light Blue Shading: 10” or more of Snow

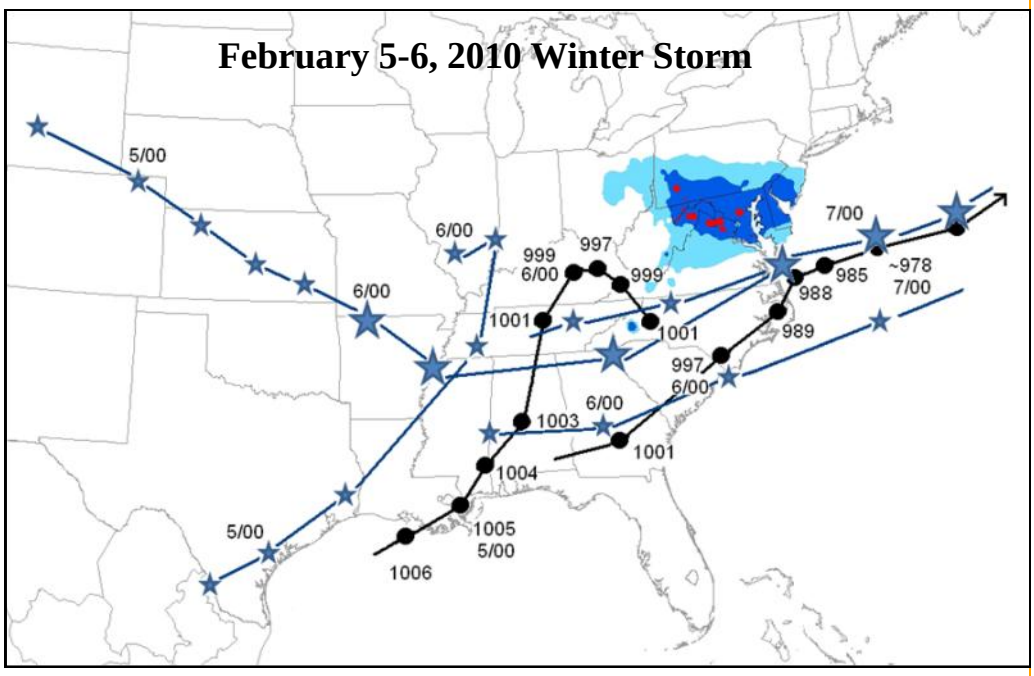
Dark Blue Shading: 20” or more of Snow

Red Shading: 30” or more of Snow

(continued next page)

Case Study *(continued)*

tion of antecedent features such as surface high pressure and cold air also had an impact on the resultant snowfall for the Baltimore-Washington metro. Both of these winter storms produced moderate to heavy snow at Washington Reagan National Airport (KDCA) for roughly 24 hours.



***Legend Previous Page**

The entire extended abstract can be retrieved from the American Meteorological Society website here: http://ams.confex.com/ams/pdfpapers/174374.pdf

What Does an Electronic Technician Do?

By, James Teklinski
Electronic Technician

There's a common phrase used by National Weather Service Electronics Technicians (or "ET's") to describe their job duties, and that is: "ET stands for Every Thing". The ET's at the Baltimore/ Washington Forecast Office maintain a wide variety (and a large quantity) of equipment on and off site. We perform some unique, and at times hazardous, electronics maintenance tasks.

ET's Climbing the Antenna Outside the Forecast Office

Off-site maintenance includes forty-five river and rain gauge equipment sites, eight ASOS sites and one NOAA Weather Radio site. Electronic Technicians also report and follow up on any telephone company data circuit and dial line problems associated with the previously mentioned field equipment. I've enjoyed exploring the area and the outdoors work involved with visiting the many field sites we maintain, and have learned a lot about our County Warning Area. Even though I was raised in this area, I had never been to a lot of our field locations before coming to the National Weather Service.

As for hazards in the field, we must deal with wasps, snakes, dogs, rocky terrain, hantavirus (a real concern), temperature extremes and the traffic associated with a major metropolitan area (And the long drives). The picture to the right is of bullet holes in the door of the Millville, WV, river gauge well house to show everyone. At least nobody has taken a shot at the well house while one of us has been inside!

Electronic Technicians maintain the Doppler Weather Radar (and walk up and down the stairs a lot), Upper Air System, CRS, communications equipment, Terminal Doppler Weather Radar equipment, office and other electronics equipment. We also assist the ESA in maintaining the AWIPS and other computer systems and the security system. We are the "First Call" contacts for any facilities problem that may develop, such as the HVAC system. If we or the ESA can't fix the problem, then the contractor is called. All in all, the ET's have a very unique and interesting job.

Skywarn Reporting Procedures

1. **Tornado or Funnel Cloud**
2. **Storm Rotation**
3. **Hail (any size and depth on ground)**
4. **Wind 50 MPH or greater (measured or estimated)**
5. **Wind Damage (downed trees and/or powerlines, structural)**
6. **Snow Accumulation (every two inches, storm total)**
7. **Ice Accumulation (any ice accumulation)**
8. **Heavy Rain (measured 1 inch, storm total)**
9. **Flooding (water out of banks and/or covering roadways)**
10. **Time of event & location**

How to report:

Telephone: 1.800.253.7091

Amateur Radio: WX4LWX

This is very time critical information that needs to be relayed to the forecaster **immediately**. Give the person on the phone/radio your name and spotter number.

If you absolutely cannot get to a telephone to relay a report or to email ***delayed*** reports and storm totals: **LWX-report@noaa.gov**

UPCOMING SKYWARN CLASSES

Class	Date	Location
Basics I	12/1/10	La Plata, MD
Winter Storms	12/8/10	Cumberland, MD
Basics I	12/15/10	Warrenton, VA
Winter Storms	12/16/10	Leesburg, VA

Visit our website for more details:
http://www.erh.noaa.gov/lwx/skywarn/classes.html

weather.gov/washington OR weather.gov/baltimore

Electronic Systems Analyst, Arthur Patrick at the Virginia State Fair in Early October