

# Sterling Reporter

Newsletter of NOAA's National Weather Service Baltimore/Washington Forecast Office

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Fall 2003

## Hurricane Isabel...from an Irish Perspective...

by Andy Woodcock, Senior Forecaster

While the staff of the Sterling NWS office was working around the clock to stay ahead of Isabel, I was on leave riding on a bicycle tour around the Ring of Kerry and Dingle Peninsula in southwest Ireland. In Ireland an internet café is usually not too far away, and I make it a point to check in with friends/family when the ride stops in [Awired@towns](mailto:Awired@towns).

I checked in on Tuesday September 16<sup>th</sup> and saw several messages stating that a hurricane named [Alisabel@](mailto:Alisabel@) was in the western Atlantic and heading for the mid Atlantic states. I noted the irony that four years prior, in 1999, I had done another Irish ride, and while there hurricane Floyd came into the mid Atlantic states and caused major flooding for our sister office in Wakefield, VA. I sent a reply message [Agood luck all my meteorologist friends.](mailto:Agood luck all my meteorologist friends.)

*Continued on page 2...*

*An Old Irish Road...*



## INSIDE THIS ISSUE

- 1 Isabel from Ireland & New Spanish Outreach Program
- 2 Fauquier Co. Awards & U of MD and Fairfax Co. StormReady
- 3 Storm Chasing Tales & Loudoun Co. Awards
- 4 Regional Weather Review – May & June
- 5 Staff Spotlight & Summer 2003 Climate Review
- 6 SKYWARN Info. / Upcoming NWS Booth / Volunteer Picnic

## Informacion del Tiempo en Espanol

por Michelle Margraf y Luis Rosa

El Servicio Nacional de Meteorologia tiene ahora informes del tiempo a cada hora y pronosticos hasta siete dias disponible en Espanol en nuestro [AWeb Site@](http://www.erh.noaa.gov/lwx) en <http://www.erh.noaa.gov/lwx>.

Para tener acceso a esta informacion haga un [Aclick@](#) en el lado izquierdo de nuestro [AWeb Site@](#) bajo [Acurrent conditions@a](#) [Aforecasts@](#). Tambien tenemos folletos de seguridad del tiempo en Espanol disponible en nuestra oficina. En el futuro, tendremos un [Aweb page@](#) dedicado a information para la seguridad del tiempo y pronosticos en Espanol.

Para mas informacion, comuniquese con Michelle Margraf en Ingles [Michelle.Margraf@noaa.gov](mailto:Michelle.Margraf@noaa.gov) o Luis Rosa en Espanol [Luis.Rosa@noaa.gov](mailto:Luis.Rosa@noaa.gov).

## Weather Information in Spanish

by Michelle Margraf and Luis Rosa

The National Weather Service now has hourly weather reports and weather forecasts out to seven days posted on our website in Spanish at <http://www.erh.noaa.gov/lwx/>.

To access this information click on the "Espanol" links on the left hand side of the menu under "Current Conditions" and "Forecasts". We also have weather safety pamphlets available from our office in Spanish. In the future we will have a web page dedicated to links for weather safety and forecast information in Spanish.

Contact Michelle Margraf in English [Michelle.Margraf@noaa.gov](mailto:Michelle.Margraf@noaa.gov) or Luis Rosa in Spanish [Luis.Rosa@noaa.gov](mailto:Luis.Rosa@noaa.gov) for more information.



Isabel continued from page 1...

By Wednesday the storm had become big news on the eastern side of the Atlantic. It was getting coverage on both RTE television and radio, the Irish national networks, and Sky News, the European equivalent of CNN. By Thursday, the day of landfall, it had even become common to hear people talking about it on the street. Washington, D.C. was always the target in the European media. I heard an interview on a Cork (Ireland's second largest city) radio station with an Irish Hurricane expert which dealt exclusively with wind. Wind, wind, wind - all he talked about. If I had known the phone number I would've called the station and said "No, the big problem for the DC area is the potential for flooding." Obviously that was the big problem.

In the storm's aftermath I looked online to see Sterling forecaster Michelle Margraf being quoted on the fact that tidal surge had become a huge problem for the Alexandria area. On the same day I heard a radio broadcast that proclaimed "The area had been lucky. The storm had been forecasted to be a 5, and it only came in as a 2." To this I screamed, because one, I was certain the storm had never been forecasted to strike DC as a category 5, and two, the report was reducing the storm to a number, as if a category 2 hurricane was a minor everyday occurrence.

Something that struck me was just how much smaller the world has become in just the four years since my last trip to Ireland. Whereas in 1999 I rarely heard about Floyd, now I was hearing about Isabel every time I saw a TV or heard a radio. On the last day of the ride - Friday, I had stopped on a country road to take a photo. A telephone repairman appeared out of a hole in the road, and asked about the storm. Did I have some sort of meteorologist markings on me?! I also received an email from a friend in southeast Asia saying Isabel was also in the news in Cambodia. Clear signs that the world has become smaller through technology.



**A big thank you to the Fauquier County Sheriff's Department for their assistance during the President's Weekend Snowstorm of 2003!** Here's a picture from the Special Service Awards Ceremony held at their office in Sept. Left to right: Captain Healy, Lt. Col. Jenkins - Chief Deputy Sheriff, Jackie Hale (NWS), Lt. Lasher, Jim Travers (NWS)

## The University of Maryland and Fairfax County, Virginia Become StormReady

by David Manning, Meteorologist

In an effort to further the mission of the National Weather Service, the StormReady Program was developed. What is the StormReady Program?



StormReady is a national program, developed by NOAA's National Weather Service, to better prepare its citizens for severe weather. The program encourages communities to develop a proactive approach to its hazardous weather operations plans. It accomplishes this by providing clear guidelines on how to improve emergency management operations during times of hazardous weather. There has been historically a lack of guidance for emergency managers in responding to hazardous weather threats, as the focus was shifted more toward hazardous materials, search and rescue, and the like. StormReady was developed to fill that gap, integrating hazardous weather into other more traditional emergency management areas of expertise.

Almost 90% of all presidentially declared disasters are weather-related, costing the economy billions of dollars each year. The StormReady program provides communities across the nation the communications and safety skills necessary to help protect life and property from the ravages of nature.

Over the past year, the University of Maryland has been working to improve its response to severe weather. This has included extensive notification procedures for university officials, residents and other students. Outdoor warning sirens were also installed on the campus as an additional means of notifying those outdoors that hazardous weather was approaching. The county went through the StormReady application process, and was accepted unanimously by the Maryland StormReady board. The University of Maryland can be proud of its designation of being the 4<sup>th</sup> StormReady University in the United States. The University is truly committed to protecting all of its people from the dangers of severe weather.

At the same time, Fairfax County, Virginia Emergency Management was taking significant steps to improve its hazardous weather response. They developed multiple redundant systems to disseminate information about hazardous weather, and also are utilizing many different sources for receiving weather information. They also installed NOAA Weather Radios in all schools. Working closely with the National Weather Service, critical county employees were given training about severe weather, and

*Continued on page 3...*

## Stormchasing Tales

by Steve Rogowski, Meteorologist

Stormchasing can be very exciting, yet very dangerous. It's important to note that it takes extensive meteorological knowledge to chase safely, and even the professional chasers find themselves in extremely dangerous situations from time to time.

With that being said, I was asked to provide a brief background about stormchasing. I am not a professional chaser by any stretch of the imagination, but have gone on dozens of impromptu meteorological adventures.

Stormchasing is exactly what it sounds like, chasing storms. Those who spend a lot of time chasing storms usually invest in sophisticated equipment such as wireless internet for meteorological information (radar, observations, etc.) and mobile weather stations. Most others though, either can't afford the equipment or prefer to chase by the human senses.

While at Penn State University, a large group of us would pile into several cars and hit the hilly central Pennsylvania roads. Although some chases would be spontaneous, many would be planned out, with map discussions during the morning hours or the prior evening. After a lengthy meteorological discussion, trip preparations were made by stockpiling maps, cell phones, food, and of course NOAA weather radio.

My most memorable trip was during finals week of my senior year (May 2002). A group of us saw potential in some big storms the previous evening, and plans were made to head toward York County in southeast Pennsylvania due to the meteorological setup and the flatter terrain. On the two hour ride down, we heard that the Storm Prediction Center had posted tornado watches from North Carolina north through northeast Pennsylvania. The excitement grew as we realized we would be heading into the center of one of the watch boxes. We arrived an hour before the storms developed and passed the time by tossing a football around in a field.

Towering cumulus led to developing storms. While the second storm we chased formed a wall cloud, forecasters at the NWS in State College urged us to go south toward a bigger storm near the Maryland state line. We were minutes north of the storm as we heard of a possible tornado in Cecil County, and arrived on the scene east of the storm. The storm had collapsed just before it was in sight, leaving a low level mesocyclone in plain view (see picture next column).

And then, just before us on the state line, scud clouds began rapidly ascending and rotating into the mesocyclone. Our luck changed from seeing a dead storm to the making of a powerful supercell right before our eyes. A new tower grew with the mesocyclone as its base, miles into the partly cloudy sky. Crisp sharp edges to the new tower led minutes later to a newly forming anvil, and then to an overshooting top. This severe storm continued eastward toward Wilmington, Delaware, far from our State College starting point.

*Continued at top of next column...*

While I have been on several chases I would consider successful, such as this trip, or the time we tracked a low precipitation supercell just west of the university, many trips end up as meteorological busts. But I have found that the trips are about spending time with friends on the road as much as seeing the next tornado.



*Picture of mesocyclone taken on Steve's May 2002 chase*

*StormReady continued from page 2...*

local procedures were solidified. Fairfax County has the special distinction of being the first StormReady county, and 3<sup>rd</sup> StormReady community in the Commonwealth of Virginia. The StormReady program is yet another example of how your National Weather Service is committed to protecting life and property for all Americans. We accomplish this through efforts both internally and externally. We believe in the strength of our partnerships, and feel that the StormReady program is an excellent example of one of those partnerships. Congratulations to the University of Maryland and Fairfax County, Virginia.



**A big thank you to the Loudoun County Sheriff's Department for their assistance during the President's Weekend Snowstorm of 2003!** Here's a picture from the Special Service Awards Ceremony held at their office in September. Left to right: Deputy Sheriff Merchant, Jackie Hale (NWS), Deputy Sheriff Lunsford, Sheriff Simpson

## Weather Review – May and June 2003

by Michelle Margraf, Storm Data Focal Point

For the detailed report on these weather events, see the Storm Data monthly reports on our website at:

<http://www.erh.noaa.gov/lwx/Storms/Strmdata/index.htm>

**May 1<sup>st</sup>:** Roads were flooded by heavy rainfall in Rockingham County.

**May 7<sup>th</sup>:** Severe thunderstorms moved through Southern Maryland and much of northern Virginia. Three F0 tornados were reported; one near Warrenton in Fauquier County and two in northern St. Mary's County. Nickel to ice cube sized hail fell in St. Mary's and Charles counties. High winds downed trees in St. Mary's, Fauquier, and Fairfax counties in addition to the cities of Fairfax, Alexandria, and Falls Church. Lightning started fires in Fairfax County and St. Mary's County. Heavy downpours flooded roads in St. Mary's and Rockingham counties.

**May 8<sup>th</sup>:** Scattered thunderstorms moved through Northern Virginia and St. Mary's County, Maryland. Hail up to the size of golf balls fell in Frederick (VA), Clarke, Warren, and Fauquier counties. Dime sized hail fell in St. Mary's County. A few trees were downed in Fairfax County.

**May 9<sup>th</sup>:** Severe thunderstorms moved through Nelson, Albemarle, and Augusta counties, downing a handful of trees. In addition, two F0 tornadoes were reported; one near Verona in Augusta County and another near Keene in Albemarle County. Golf ball sized hail also fell in Albemarle County.

**May 10<sup>th</sup>:** Very heavy downpours flooded roads in Hampshire and Hardy counties. The rain caused the Potomac River to flood at Springfield and Shepherdstown.

**May 11<sup>th</sup>:** High winds above 3000 ft. downed several trees in Pendleton and Highland counties.

**May 15<sup>th</sup>-16<sup>th</sup>:** A large area of showers dropped 2 to 5 inches of rain across western and central Maryland, flooding numerous roads and waterways. A handful of water rescues were conducted in Frederick (MD) and Washington counties. Flooding of roads and streams was also reported in the Virginia suburbs of Washington D.C. and Berkeley and Jefferson counties in West Virginia.

**May 24<sup>th</sup>:** A thunderstorm with heavy downpours flooded roads in Frederick County, Maryland.

**May 31<sup>st</sup>:** Thunderstorms with high winds and heavy rainfall moved through much of Maryland and Morgan County, West Virginia. Trees were downed in Washington, Frederick (MD), Carroll, Montgomery, Prince George's, and Anne Arundel counties. Road and waterway flooding was reported in Morgan, Carroll, and Frederick (MD) counties.

**June 1<sup>st</sup>:** A strong cold front produced winds up to 55 MPH. Scattered downed trees were reported regionwide. Four people were injured when a tree fell onto a car in Washington, D.C.

**June 3<sup>rd</sup>:** Two to four inches of rain caused several streams and creeks to flood in Washington and Frederick counties in Maryland. Several roads were closed by high water.

**June 7<sup>th</sup>:** Showers and thunderstorms dropped another 2 to 3 inches across Central Maryland and Washington, D.C. Waterways and roads flooded in Montgomery, Howard, Frederick (MD), Washington, and Harford counties. Saturated soil caused a tree to fall onto a car in D.C., injuring two people.

**June 11<sup>th</sup>:** Thunderstorms with heavy downpours and high winds moved through. Trees were downed in D.C., Alexandria, and Fairfax, in addition to the counties of Montgomery, Howard, Prince George's, Charles, St. Mary's, Calvert, Greene, Culpeper, Clarke, Loudoun, Fauquier, Fairfax, and Arlington. Lightning fires were reported in Montgomery County. Penny sized hail fell in Loudoun County. Road flooding was reported in Augusta and Nelson counties.

**June 12<sup>th</sup>:** A thunderstorm produced a downburst of wind measured at 76 MPH in D.C. which significantly damaged four apartment buildings. Four people were injured by flying debris. Heavy downpours flooded nearby roads. Numerous other locations across the region reported downed trees and power lines from thunderstorms with winds up to 60 MPH. One notable exception was a wind gust measured at Andrews Air Force Base of 83 MPH. Heavy downpours flooded roads in Baltimore, Prince George's, Carroll, Montgomery, Fairfax, Clarke, Prince William, Shenandoah, Loudoun, Fauquier, and Hampshire counties.

**June 13<sup>th</sup>:** Another round of thunderstorms with heavy rainfall caused several areas to flood. The hardest hit location was the city of Baltimore where a flash flood washed cars down two city streets and flooded nearby houses. Motorists were rescued from their cars or swam to safety after the rapidly rising water reached 6 feet at an intersection. One woman was injured after the floor in her home gave way after being weakened by flooding. Minor road and stream flooding was also reported in Montgomery, Carroll, Harford, Washington, Howard, Shenandoah, Warren, Orange, Hardy, Mineral, Berkeley, and Jefferson counties. High winds also downed trees in Montgomery, Howard, and Baltimore counties.

**June 14<sup>th</sup>:** Scattered thunderstorms with high winds downed trees in Prince George's, Charles, Fauquier, Fairfax, Madison, and Orange counties. Penny sized hail fell in Jefferson County. Flooding was reported in Fairfax and Stafford counties.

**June 19<sup>th</sup>:** Another round of showers and thunderstorms dropped up to 5 inches of rain, causing renewed flooding in the Washington D.C. suburbs. Several roads were closed by high water in the following counties: Montgomery, Frederick (MD), Prince George's, Howard, Prince William, Fairfax, and Loudoun.

**June 20<sup>th</sup>:** Thunderstorms with heavy rainfall caused flooding in Washington D.C., and the counties of Montgomery, Howard, Harford, Culpeper, and Fairfax.

**June 21<sup>st</sup>:** Heavy rainfall caused more flooding in Baltimore and Harford Counties. Flooding was also reported along the Opequon Creek in Berkeley County.

**June 27<sup>th</sup>:** Thunderstorms downed trees in Charles, Prince George's, Calvert, and Fauquier counties.

**June 30<sup>th</sup>:** Scattered thunderstorms downed trees in the District of Columbia in addition to Harford, Montgomery, and Berkeley counties. Heavy downpours caused flooding in Montgomery County where quarter to golf ball sized hail was also reported.

## Meet our Newest Forecaster... Staff Spotlight on Steve Rogowski

I joined the staff of the National Weather Service in Sterling during the early portion of May. Most of my first week here is now a blur, remembering only the day-after-day bouts of severe weather. Not a bad start for an admirer of severe thunderstorms.

I was born and raised in the suburbs of Chicago, and went to Penn State University in pursuit of a bachelor's degree in meteorology. I was fortunate enough to start my career in the National Weather Service at the Chicago office during the summer after my freshman year. Through the remainder of my college years, I continued to gain valuable experience at both the Chicago and State College, PA offices. Other experiences during my college years included research work at PSU and a summer internship at WGN-TV in Chicago with chief meteorologist Tom Skilling. After graduating in May 2002, I was hired by the Chicago office, only to return east a year later to become a forecaster.

When most meteorologists talk about their fascination with weather, it often dates back to their early childhood, and correlates with living through an extreme weather event. Oddly, I wasn't really hooked onto weather while growing up. I stumbled onto the profession as a subject for an 11<sup>th</sup> grade English paper on a prospective career. My fascination with weather increases with every new day. Outside of work I enjoy sports, hanging out with friends, and road trips.

Odd Factoid: My father was almost transferred to Reston, VA from Chicago while I was in college. When visiting the area, I thought to myself, "I really like this area; I'd sure like to live here one day."

*Editor's Note: Steve already has a following for his area forecast discussions. He is famous for describing in detail the meteorology behind local weather in a way that weather enthusiasts find very educational. We're glad to have him as the newest member of our forecasting team.*

## The Summer of 2003

by Chris Strong, Senior Forecaster

The summer of 2003 got off to a slow start and was rather mild even at its peak. The first three weeks of summer began as spring left off, overcast and rainy. In fact, out of those first 21 days, only 3 days in Baltimore and 4 days in Washington were entirely rain-free. And there were some soakers in there, too. Most of the seven inches of rain that fell in June came during those first three weeks. That was also more than double the average rainfall for June.

Temperatures were very cool. With skies remaining mostly cloudy during that early period, afternoon temperatures were mainly in the 60s and 70s. One day in early June barely made it to near 60 degrees.

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Things started to improve by the end of June. Skies moved from mostly cloudy to partly sunny which allowed temperatures to warm and allowed the rain to abate somewhat. There were some days in the 90s for the first time of the summer. Baltimore even logged its hottest day of the year in late June on the 26<sup>th</sup>, when the temperature hit 93 degrees.

July continued the pattern of late June. There was some sunshine, but it was also rather unsettled as a stationary front remained locked over the mid-Atlantic region. Thunderstorms were a common occurrence and the rain totals kept on rising. The month ended up with five and a half inches of rain, about two inches above the normal. With partly sunny skies temperatures were kept somewhat in check and the month ended up around a degree below normal. The weekend of the 4<sup>th</sup> of July was one of the hottest stretches of the summer. D.C. had its only 4 day string of 90 degree days of the summer, topping out at 94 on the 5<sup>th</sup>, which tied for the hottest day of the summer. Still, low to mid 90s during the 4<sup>th</sup> of July weekend was nowhere near as hot as last summer or in 1999.

August was a bit sunnier than July, but continued unsettled. During the month over 4 ½ inches of rain fell, about an inch above average. Interestingly, the month ended up about 1.5 degrees above normal due to warm nights, rather than hot days. The extra rain and clouds kept nighttime temperatures from cooling off. In fact, the afternoon highs were still below normal, even though the average nighttime low temperature was nearly two degrees above normal.

All in all, the summer ended up slightly cooler than normal, with a low number of 90 degree days. There were only twenty 90 degree days during the summer in D.C., while Baltimore only had fourteen. Compared with last summer, that is only half the number of normal 90 degree days for D.C., and less than a third for Baltimore. The average for each is 31 and 25 respectively. There were no 100 degree days this summer, as compared with two last summer. This summer didn't even break 95 degrees.

Rainfall is where this summer made its mark. It was the 12<sup>th</sup> wettest summer for D.C. and the 16<sup>th</sup> for Baltimore. This was even more impressive because there were no tropical storms or hurricanes during the summer months. There was not even a day that had two inches of rain. This summer's high rainfall total was done by many days of rain, with several major rain storms, rather than having a sizeable chunk from a tropical event. There was about eighteen inches of rain this summer (18.28 inches in DC, 17.13" for Baltimore). That was 1 ½ to 2 times the 30 year average.



## Upcoming SKYWARN Classes

For more information check out the SKYWARN website at:  
<http://www.erh.noaa.gov/er/lwx/skywarn/classes.html>

### **BASICS I SKYWARN CLASS**

This class is essential for becoming a SKYWARN Spotter. It is a 3-hour class that covers the basics of how SKYWARN and the National Weather Service operate, what you need to report and how, and how to spot severe thunderstorms and tornadoes. This class is a pre-requisite for all other classes.

Monday, October 27th in Washington, D.C. at Gallaudet University from 5:00 - 9:00 PM. ASL interpreters along with speaking instructor will be provided. Register at [Saturday@gallaudet.edu](mailto:Saturday@gallaudet.edu) or TDD 202-448-6930

### **BASICS II SKYWARN CLASS**

This class is an optional sequel to the Basics I class. It is 2 1/2 hours long. It is good for spotters who need a refresher or feel they want additional information and training. It reviews the basic spotting techniques and covers more information about thunderstorms and Doppler radar. You must have taken Basics I to attend this class.

Sunday, November 2nd in Westminster, MD from 1:00PM - 2:30PM. Register with Keith at [kb3hhk@arrl.net](mailto:kb3hhk@arrl.net)

### **WINTER STORM CLASS**

This is an optional 2 1/2 hour class that is offered seasonally (November - January). Its focus is on the Mid-Atlantic snow storms and nor'easters. It looks at the frequency and history of the storms, how they form and the difficulties in forecasting them, how to be prepared, how to measure snow and ice, and how SKYWARN operates during a winter event. You must have taken Basics I to attend.

Sunday, November 2nd in Westminster, MD from 3:00PM - 5:00PM. Register with Keith at [kb3hhk@arrl.net](mailto:kb3hhk@arrl.net)

## ***Come visit the National Weather Service booth at the Fauquier County Public Safety Day Fair!***

**What:** Fauquier County Sheriff's Office Public Safety Day; a free fair where over 200 safety organizations will have booths, including the FBI, FEMA, Dept. of Homeland Security, U.S. Park Police, Secret Service, and many more!

**Where:** At the Wal\*Mart parking lot in Warrenton, off Route 29 in Fauquier Co., Virginia (rain or shine)

**When:** Saturday October 25<sup>th</sup> from 10 AM to 4 PM

Staff from the National Weather Service in Sterling will have a booth at the fair where free weather safety pamphlets will be available. In addition, the booth will have a weather balloon display, NOAA Weather Radio information, and a "tornado-in-a-bottle" and coloring books for the kids!

## SKYWARN and CO-OP OBSERVER PICNIC 2003

The second annual volunteer appreciation picnic was held Saturday, August 9<sup>th</sup> at our office. Food and fun were had by fellow SKYWARN Spotters, Co-op Observers, and NWS staff. Nearly 100 people took part in the picnic/open house. There were tours of the facility which allowed volunteers to ask the staff questions. Following the tour, attendees watched a special weather balloon release.

An awards ceremony was led by Meteorologist-In-Charge, Jim Travers. Lynn Albright of Harford County, MD and Chad Rudolph of Frederick County, VA are two SKYWARN spotters that were recognized for going above and beyond the call of duty. Assistant SKYWARN amateur radio coordinator, Mike Virgoilio, was recognized for spending the most number of volunteer hours at the NWS office over the past year.

### THANK YOU VOLUNTEERS!



Award Recipients Lynn Albright and Butch Baker with Meteorologist-in-Charge Jim Travers



## ***Sterling Reporter***

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