



# NEWSLETTER

**National Weather  
Association**

NO. 10 – 5      MAY 2010

## 2010 NWA ANNUAL AWARD NOMINATIONS DUE JULY 1

The nomination period for the 2010 NWA Annual Awards is now open! The awards will be presented at the Awards Banquet on Oct. 6 during the 35<sup>th</sup> NWA Annual Meeting in Tucson, Ariz.

Go to <http://www.nwas.org/awards/> for more details including award categories.

We are also proud to announce you may make your nominations online by visiting the following Web site:

<https://scholarselect.com/scholarships/841-2010---annual-award-nomination>



### The use of a dual polarimetric debris signature in the real-time operational warning environment during the April 24, 2010, tornado event in Northern Alabama

On the evening of April 24, 2010, a strong EF-3 tornado cut a 41 mile path through Blount, Marshall and DeKalb Counties in Northeastern Alabama. This tornado was one of many during a severe weather event that raked the Southeastern U.S. While the tornado was on the ground, a dual polarimetric debris signature was observed and disseminated in real-time to the National Weather Service (NWS) and local media partner WHNT-TV.

The Advanced Radar for Meteorological and Operational Research (ARMOR) dual polarimetric, C-band radar is jointly owned by the University of Alabama at Huntsville (UAHuntsville) and WHNT-TV Huntsville, and is operated by UAHuntsville, NASA and WHNT meteorologists. ARMOR operates on a 24 hours per day, seven-days per week schedule. The radar runs in both fixed operational and flexible volume-scanning modes so such scan strategies can be set up to observe specific areas of interest. Besides standard horizontal reflectivity ( $Z_H$ ) and radial velocity ( $V_r$ ) found in WSR-88D data, ARMOR also provides

the following dual polarimetric fields: differential reflectivity (ZDR), correlation coefficient ( $\rho_{hv}$ ), specific differential phase (KDP), and differential phase ( $\Phi_{dp}$ ). Radar data is provided real-time to the NWS Huntsville Weather Forecast Office as well as ARMOR media partner WHNT-TV for use as an additional data source for forecasting purposes. The dual polarimetric radar data provide important added information that enables determination of the shape and size of the objects being sampled.

Dual polarimetric tornadic debris signatures have been documented in the past by researchers at the National Severe Storm Laboratory; however, to the best of the authors' knowledge, a dual polarimetric debris signature has not been used in real-time operations. Dual polarimetric tornadic debris signatures are characterized by low  $\rho_{hv}$  coupled with significant reflectivity values (i.e., stronger than "noise"). Typically at C-band,  $\rho_{hv}$  values below 0.70 can be considered non-meteorological (i.e., ground clutter, birds, insects, debris). There must also

*See Debris, page 6*

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**GREAT HURRICANE  
BLOWOUT.ORG**

Learn about the Blowout on page 8 just in time for the 2010 Atlantic Hurricane Season, which runs from June 1 through Nov. 30.

**2010** is turning out to be a year that weather forecasts and decision support services in major disasters are in the spotlight. In early May, extreme rainfall over several days totaling nearly 20 inches in some places inundated portions of Western and Middle Tennessee. Many rivers set new historic flood levels including a crest of nearly 52 feet in Nashville on the Cumberland River. The computed 48-hour rainfall “Average Recurrence Intervals” (ARI) for this event ranged upwards of over 1000 years. This is amazing considering that a 1000 year flood has only a 0.1% chance of occurring. A 100 year flood has a 1% chance of occurrence. (*National Weather Service offices in Memphis, Nashville and Louisville all have summaries of this event on their Web pages at [www.weather.gov](http://www.weather.gov).*)

Another terrible disaster occurred in the Gulf of Mexico with the tragic explosion and eventual sinking of the Deepwater Horizon oil drilling platform on April 20-21 more than 40 miles off Venice, La. The subsequent oil spill’s impact on coastal areas throughout the Gulf region is still unfolding and largely unknown. Commerce in the region has been severely disrupted, especially for commercial fisherman, charter boat operators and the region’s tourism.

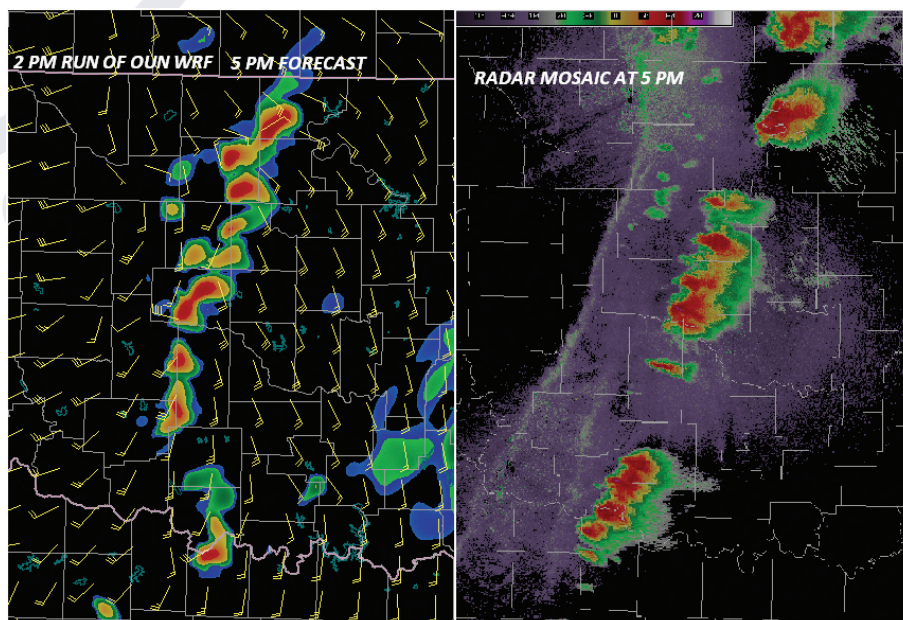
From the start of the oil spill incident, many divisions within National Oceanic and Atmospheric Administration (NOAA) began providing a host of services (<http://response.restoration.noaa.gov/>). Weather forecast support involving all aspects of recovery and mitigation activities has been handled by many of NOAA’s NWS coastal offices along the Gulf. A joint federal command and operations center is in Houma, La. This center helps coordinate and facilitate operations planning and response efforts for the spill. The NWS Slidell office deployed an Emergency Response Meteorologist (ER-MET) to the command center shortly after the incident began. The on-site ER-MET provides detailed forecast decision support services to various government and industry responders. Specific types of forecasts include on-demand (or “spot”) forecasts for such operations as controlled oil burns, chemical dispersant operations, and many other air and water operations. NWS Southern Region Headquarters has helped coordinate augmented staffing support for the incident at affected NWS Weather Forecast Offices (WFOs) that are providing critical support services including WFOs Slidell and Mobile.

The Meteorologist-in-Charge (MIC) at WFO Slidell and NWA member Ken Graham is the national contact for weather interviews. WFO Slidell’s Web site, [www.srh.noaa.gov/lix/?n=embriefing](http://www.srh.noaa.gov/lix/?n=embriefing), provides an excellent resource for information related to weather and oceanographic support of this incident. The NWS Center Weather Service Unit (CWSU) in Houston is coordinating forecast support for air operations in the region.

The National Centers for Environmental Prediction (NCEP) is providing key support in NOAA’s response effort. NCEP’s unified surface synoptic analyses generated every six hours by three of its Prediction Centers (Tropical, Hydrometeorological and Ocean) provide the broad overview of weather over the spill region. In support to NOAA’s National Ocean Service, who provides twice-daily trajectory forecasts of ocean currents

in the spill area, NCEP is providing surface pressure and wind forecasts from special runs of a four-member ensemble from their Climate Forecast System (CFS) run out to 45 days. NCEP’s Ocean Prediction Center has detailed a NOAA Corp Officer to the Department of Homeland Security Headquarters in Washington, while two NCEP/Climate Prediction Center (CPC) forecasters have been detailed to Alabama to assist in long term incident response.

After a slow start, the 2010 severe weather convective season became active after mid-April. Several major severe events have occurred including two tornado outbreaks with multiple killer tornadoes. NWS offices and centers, media outlets and private meteorologists were busy handling operations across the Southern Plains and Lower Mississippi Valley during these outbreaks. During the May 10 outbreak, a tornado formed very close to the National Weather Center in Norman, Okla., home to many meteorologists and organizations including the Storm Prediction Center (SPC) and the Norman NWS WFO. This tornado later produced EF-4 damage as it moved east. While NWS offices were still conducting storm surveys for the May 10 event, preliminary survey results indicated at least two EF-4 tornadoes swept across the Moore and Norman areas of Oklahoma. On the 10<sup>th</sup>, both the SPC and, for Central Oklahoma, the Norman WFO, provided crucial guidance and services on the critical nature of storms expected that day. Norman WFO’s MIC, Mike Foster, noted their local 4km WRF model runs that day consistently showed discrete convective storms forming west of the Oklahoma City metro area and moving rapidly through the metro region around 5 PM. (See figure below).



*Comparison of 3-hour 4km WRF simulated reflectivity forecast for central Oklahoma with its verifying radar, both valid at 5pm CDT.*

The uptick in severe weather is being watched carefully by project team members associated with the \$11.9 million VORTEX2 program, which officially started May 1. They’ve already had several storm intercepts, including some of the tornadic storms on May 10 that moved east of Oklahoma City.

The Atlantic hurricane season officially kicks off on June 1.

*Continued page 3*

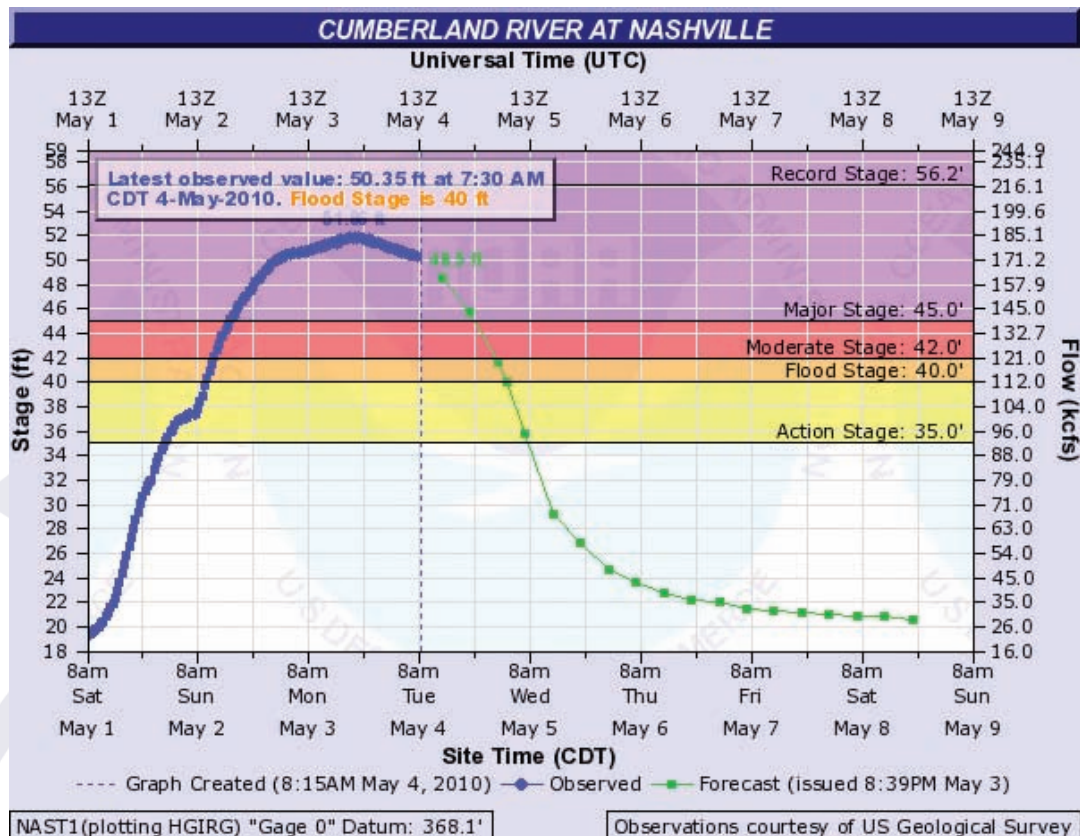


Preparedness activities are ramping up in coastal and inland areas by the NWS, media and private meteorology companies. Hurricane Preparedness Week was May 23-29. On May 15 — before the start of the season — the National Hurricane Center (NHC) in Miami implemented several changes to their operations: the lead times for issuing watches and warnings for tropical storms and hurricanes along threatened coastal areas will be issued 12 hours earlier than in previous years. Thus, all tropical watches will be issued within 48 hours and warnings issued within 36 hours of the expected onset of conditions. Additional changes are being made to the format of the Tropical Cyclone Public Advisory. A new hurricane wind scale will also be used this season. The new scale called the “Saffir-Simpson Hurricane Wind Scale,” uses the same wind speed ranges as the original Saffir-Simpson Scale, but no longer ties storm surge and flooding to each of the five hurricane categories. For details on these and other changes, consult the official NHC summary of product changes for the 2010 Hurricane Season and new hurricane wind scale press release that are available on NHC’s Web site: <http://www.nhc.noaa.gov>. The latest NOAA official Atlantic hurricane forecast was released on May 27, and several of our corporate members have or will issue their own hurricane and tropical storm outlooks.

In climate news, according to an update (May 10, 2010) from NOAA’s CPC, the current El Niño is weakening, and a rapid transition to El Niño-Southern Oscillation (ENSO)-neutral conditions is underway. Based on all observations, including those that show the sea surface temperatures are decreasing across much of the Pacific Ocean, and the latest dynamical model forecasts, CPC expects a rapid transition to ENSO-neutral conditions by early June 2010, which will continue into the start of Northern Hemisphere summer. And CPC notes there’s a growing possibility of La Niña conditions developing during the second half of 2010.

The eruption of Icelandic volcano Eyjafjallajökull, the topic of last month’s column, continues. Recently, Transportation Ministers in the UK agreed that starting May 15, the UK Met Office, who handles the monitoring and movement of volcanic ash over much of Western Europe and the North Atlantic Ocean, will make its five day ash prediction charts available to the public via its Web site <http://www.metoffice.gov.uk/>. Before the 15<sup>th</sup>, their public ash forecasts only went out to 18 hours. This change in policy, along with an increase in volcanic activity, caused more disruptions of longer durations at several airports. Again, this highlights the importance of meteorology in dealing with major volcanic eruptions.

Finally, congratulations to all graduating students of meteorology at both the undergraduate and graduate levels!



*A hydrograph of the Cumberland River at Nashville during the historic May 2010 flood. Source: NWS.*

Your hard work has paid off. Many of you are about to enter the workforce, while others embark on the pursuit of higher education. NWA student membership rates are available to those who have graduated in the past 12 months. Graduates please remember to renew your NWA membership as needed and update your information on the Member Portal so that we can stay in touch with you. For those graduates undecided or having difficulties finding suitable work, realize this transition in your life presents an opportunity to reflect and perhaps redouble efforts to identify your career path. Our Web site is continually refreshed with job announcements. Networking with others in the field is important. Our Annual Meeting in October is a way to meet and interact with other NWA members, and I encourage students to participate in the 3<sup>rd</sup> Annual Student Session (see pages 4 - 5 for details).

Our NWA Council will conduct its Midyear meeting in Dallas, Texas, the first weekend in June. I'll have more to report as a result of this meeting next month.

Questions/comments, please feel free to send email to me: [President@nwas.org](mailto:President@nwas.org).

**Steve Zubrick**  
NWA President



## 35<sup>th</sup> NWA Annual Meeting – Oct. 2-7, 2010

### *Get Ready and Start Planning to Attend this Fantastic Meeting!*

#### Where:

Marriott Tucson University Park, University of Arizona, 880 E. 2<sup>nd</sup> Street, Tucson, AZ 85719

#### Our Theme ~ Fire and Ice: Science and Society

The 2010 meeting will emphasize ongoing and emerging interaction between the branches of the weather and water enterprise, including the private sector, media, academia and government. Topics will also include: societal impact research and public policy maker interaction with weather forecasters; tropical cyclone forecasting, particularly in the eastern Pacific; wildfire forecasting; hydrometeorology, precipitation forecasting and estimation; innovative uses for lightning data; winter and severe convective storms, with emphasis on high plains and western U.S. geography issues; data denial and how operational forecasters cope with key data losses; and climate variability and forecasting, particularly on the intra-annual level.

#### Professional Development Opportunities:

The 2010 Annual meeting will include the annual Broadcasters' Workshop and DVD swap, and the Third Annual Students' Session at the University of Arizona Student Union – both on Sunday, Oct. 3. Student presentations will be reviewed by the NWA Weather Analysis and Forecasting Committee members, and monetary awards will be presented to the best presentations and posters in undergraduate and graduate student categories. The general session will be Oct. 4-7; the annual awards luncheon is Wednesday, Oct. 6.

#### Still Need More?

The Annual Meeting Program Committee Chair is Erik Pytlak, Science and Operations Officer, NOAA/NWSFO, 520 North Park Ave, Tucson, AZ 85719; (520) 670-5156; [annualmeeting@nwas.org](mailto:annualmeeting@nwas.org).

The Broadcaster Workshop Program Chair is Mike Goldberg, PO Box 2491, Glen Allen, VA 23058-2491; [mike@mike-goldberg.com](mailto:mike@mike-goldberg.com)

For more information on exhibits, special accommodations, registration and overall meeting program, go online to [www.nwas.org](http://www.nwas.org) or contact the NWA office at (919) 845-1546 or by emailing: [exdir@nwas.org](mailto:exdir@nwas.org).

#### Meeting Overview

##### Sunday, Oct. 3:

**Broadcast Meteorology Workshop** will include special presentations and other activities appropriate for the continuing education of weathercasters however is open to all. DVD Swap in the evening – bring a DVD of a recent weathercast for discussion.

**3rd NWA Student Session** will provide guidance for students regarding how to best prepare themselves to enter the workplace. Includes a large student poster session and networking opportunities with broadcasters and other NWA members. Resume/DVD critique session included!

##### Corporate Exhibits Open

##### Monday-Thursday, Oct. 4 - 7:

**General Sessions** will consist of both oral and poster sessions targeting the meeting theme, "Fire and Ice: Science and Society." The annual Awards Luncheon will be held on Wednesday, Oct. 6.

**8th Annual Golfing for Scholarships Outing:** This NWA scholarship fund raising event will be held on Saturday, Oct. 2, at a Tucson area golf course. Details will be provided in June. Proceeds over costs will go to support the NWA scholarship program.

### Recent Module Publications from COMET

COMET has recently published eight English modules in four different topic areas as well as seven Spanish language modules. Five modules were published in the area of fire weather to complete the online version of the popular S-290 "Intermediate Wildland Fire Behavior" course. Many of these should be of interest to anyone who lives or forecasts in fire prone areas. Modules can be taken individually and users are not required to take the entire 13 module course. The whole course is available online at [http://www.meted.ucar.edu/dl\\_courses/S290/](http://www.meted.ucar.edu/dl_courses/S290/). Recently published modules include:

- S-290 Introduction\* (<http://www.meted.ucar.edu/fire/s290/unit0/>)
- S-290 Unit 6: Atmospheric Stability (<http://www.meted.ucar.edu/fire/s290/unit6/>)
- S-290 Unit 10: Fuel Moisture\* (<http://www.meted.ucar.edu/fire/s290/unit10/>)
- S-290 Unit 11: Extreme Wildland Fire Behavior (<http://www.meted.ucar.edu/fire/s290/unit11/>)
- S-290 Unit 12: Gauging Fire Behavior and Guiding Fireline Decisions\* (<http://www.meted.ucar.edu/fire/s290/unit12/>)

As always, these materials are freely available to everyone, courtesy of our sponsors (NOAA's NWS, NESDIS GOES and NPOESS programs, Naval Meteorology and Oceanography Command, the Air Force Weather Agency, and the Meteorological Service of Canada). Don't forget you'll need to register (free of charge) in order to access the modules.

**Greg Byrd**  
**Professional Development Committee**



## 35th NWA Annual Meeting: Pre-register Now!

The NWA 35<sup>th</sup> Annual Meeting will be held from Oct. 2 – 7, 2010 at the Marriott Tucson University Park Hotel, Tucson, Ariz.

**ANNUAL MEETING PREREGISTRATION** (through Sept. 24): The preregistration fee includes a preprint volume with program and abstracts. For the period of days registered, it also includes: admission to all oral presentations, poster sessions, and exhibit sessions plus coffee/refreshment breaks. Full registration includes the Wednesday Awards Luncheon. Registration after the preregistration period will result in fee increases of \$5 to \$25.

### Annual Meeting Hotel Information:

Marriott Tucson University Park

NWA room rates (reserve by Sept. 1 to get these rates!):

Single & Double room rate: \$106.00

Standard Suites: \$139.00

Call 1-800-228-9290 and request the National Weather Association 2010 Annual Meeting rate to reserve your room.

[www.marriott.com/hotels/travel/tusup-tucson-marriott-university-park/](http://www.marriott.com/hotels/travel/tusup-tucson-marriott-university-park/)

### Pre-registration Fees (through Sept. 24):

#### Sun., Oct. 3: Broadcast Workshop and DVD Swap (8 a.m.–11 p.m.)

- \$100 NWA members and presenters
- \$50 students and retired members
- \$140 for non-members
- \$95 for non-member students and retired

#### Sun., Oct. 3: Student Seminar and Resume night session (1 p.m.–11 p.m.)

- \$35 NWA student members
- \$50 for non-member students

#### Mon.–Thurs., Oct. 4 - 7: General Sessions/Activities \$240 NWA

members and presenters

- \$125 students and retired members
- \$280 for non-members
- \$175 for non-member students and retired

#### Special One-Day Rates for period Oct. 4 – 7

- \$95 NWA members and presenters
- \$50 students and retired members
- \$120 for non-members
- \$90 for non-member students and retired

#### Special: All events Sun.–Thurs.

- \$330 NWA members
- \$410 for non-members

#### Special Student: All events, Sun.– Thurs.

- \$145 NWA members
- \$215 for non-members

### Pre-Register On-Line by credit card (MC or Visa):

- Attending Broadcast Workshop and/or most of the General Session register at: [www.nwa-registration.org/register.shtml](http://www.nwa-registration.org/register.shtml)
- Attending Broadcast Workshop and/or only a day or two of the General Session register at: [www.nwa-registration.org/registerbyday.shtml](http://www.nwa-registration.org/registerbyday.shtml)

### Pre-Register by Mail:

**Mail this form with full payment of fees by Sept. 24, 2010** to: NWA Meeting, 228 West Millbrook Road, Raleigh NC 27609-4304 USA. Make payment to "NWA" in U.S. funds by a U.S. bank check, money order or government/institution purchase order.

Name (for nametag): \_\_\_\_\_

Employer, School or other Affiliation (for nametag): \_\_\_\_\_

City/State (for nametag): \_\_\_\_\_

Telephone number: \_\_\_\_\_

E-mail address: \_\_\_\_\_

Arrival Date at meeting: \_\_\_\_\_

Departure Date from meeting: \_\_\_\_\_

Preregistration fees: \$ \_\_\_\_\_

Extra Luncheon tickets (\$30 each): \$ \_\_\_\_\_

Attending Icebreaker, Mon. evening, Oct. 4 (No cost): ☐ Yes ☐ No

"Golfing for Scholarships", Sat., Oct. 2 (Fee TBA): ☐ Yes ☐ No

Total Funds enclosed: \$ \_\_\_\_\_

### Please Circle ALL following phrases that apply to you:

NWA member	NWA local chapter member	Non-member	Student
Retired	Session Chair	Presenter	
Program committee member	Local Arrangements committee member		
Bringing a DVD to the DVD Swap	Attending DVD Swap without a DVD		
Student with broadcast DVD for critique at Sunday Resume/DVD session			

If a non-member joins, they will immediately be eligible for the member rates

be several pixels of reflectivity greater than 20 dBZ collocated with the  $\rho_{hv}$  minimum to ensure sufficient signal strength (and a  $\rho_{hv}$  not contaminated by noise). Returned power (dBm) would be a better metric to determine signal strength, but this is not always readily available.

At 0259 UTC, the tornado initially touched down near the town of Brooksville, Ala. Over the next 26 minutes, the storm had the appearance of a classic HP supercell, with the tornado in its southwestern flank, but no apparent debris signature. Only one report of damage was received during this 26 minute period: at 0315 UTC a roof was blown off of a home in the community of Hyatt, Ala. At 0325 UTC an ARMOR radar sample revealed that a tornado was producing damage near the city of Albertville (Fig. 1). In Fig.1, three pixels of  $\rho_{hv}$  located in the circulation couplet and embedded within reflectivity values of 20-25 dBZ are lower than 0.70, and the minimum  $\rho_{hv}$  value is 0.47. At 0329 UTC, UAHuntsville's radar operators noticed the debris signature, and informed the NWS Huntsville, as well as the weather team at WHNT-TV that a tornado appeared to be occurring in Albertville, Ala. Immediately WHNT-TV's weather team reported to their viewers the confirmation of the tornado, and the NWS acknowledged observing this same signature in the ARMOR data two minutes later at 0331 UTC. This signature lasted only a handful of radar scans as the storm rapidly moved away from the radar and the signature became less discernable from an apparent mixture of hail and rain.

While tornadic debris signatures usually do not help with the initial warning of a tornado (i.e., typically there are other signatures in the velocity field that indicate rotation prior to touchdown), the debris signature can be used to corroborate spotter reports, or lack thereof, especially if the tornado occurs at night and/or is rain-wrapped. In this case, the debris signature acted to reinforce a spotter report. At 0325 UTC the NWS office in Huntsville received a report of a possible tornado in Albertville. The radar scan taken at 0325 UTC revealed the debris signature, confirming the presence of the tornado. Although these signatures can be tough to distinguish, they can

serve as a useful tool to confirm that a tornado has occurred, especially in situations at night, or where there is a lack of trained weather spotters.

**Christopher J. Schultz, Elise V. Schultz**  
**Department of Atmospheric Science,**  
**University of Alabama-Huntsville, Huntsville, Ala.**

**Lawrence D. Carey**  
**Earth System Science Center,**  
**University of Alabama-Huntsville, Huntsville, Ala.**

**Walter A. Petersen**  
**NASA Marshall Space Flight Center, Huntsville, Ala.**

**Brian Carcione, Chris Darden**  
**National Weather Service Huntsville, Huntsville, Ala.**

**Dan Satterfield**  
**WHNT-TV, Huntsville, Ala.**

### Editor's Note

The NWS completed a damage survey for this event and determined that the tornado first touched down four miles northeast of Brooksville at 9:59 p.m. CDT, and then moved northeast for 41 miles. It was rated as an EF-3. The most significant damage occurred in the city of Albertville from 10:27 to 10:40 p.m.

The detailed report is located at:

[www.srh.noaa.gov/hun/  
?n=hunsur\\_2010-04-24\\_marshall\\_dekalb](http://www.srh.noaa.gov/hun/?n=hunsur_2010-04-24_marshall_dekalb)

Learn more about ARMOR at:

[vortex.nsstc.uah.edu/armor/](http://vortex.nsstc.uah.edu/armor/)

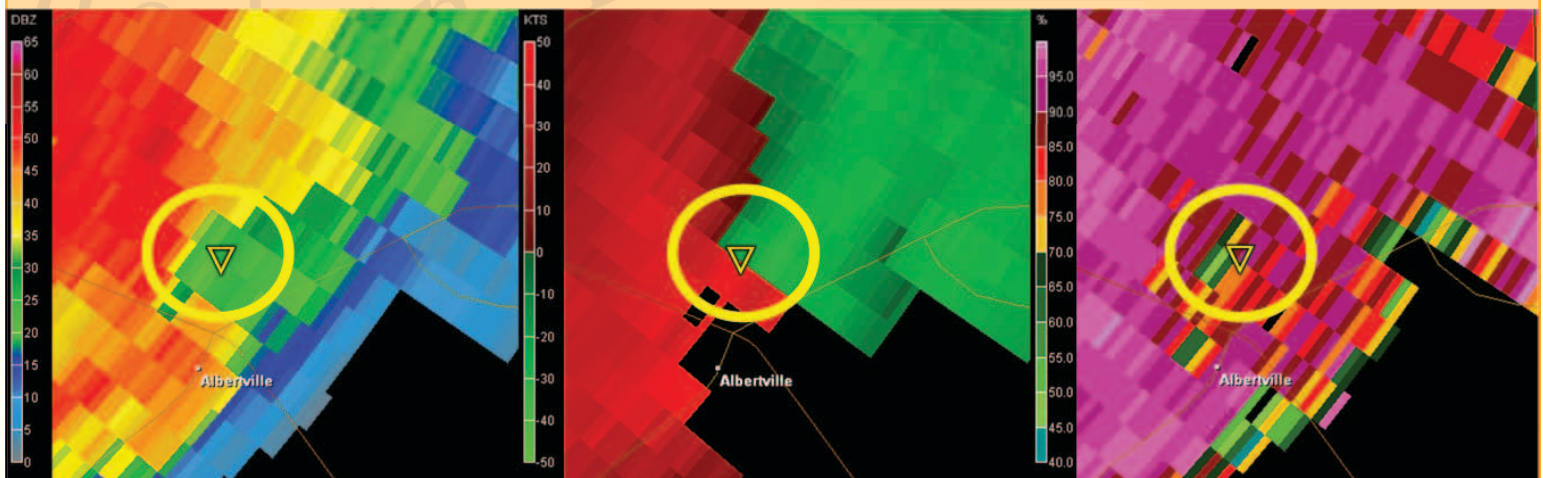


Figure 1: Image taken at 0325 UTC, April 24, 2010, near Albertville, Ala., from UAHuntsville's ARMOR radar. Shown is horizontal reflectivity (left), radial velocity (center) and correlation coefficient ( $\rho_{hv}$ ; right). Yellow circles indicate areas of interest, where the radial velocity couplet is collocated with the debris signature. Green colors in the  $\rho_{hv}$  field indicate values below 0.70. The lowest  $\rho_{hv}$  value is 0.47, and this located just to the left of the TVS marker in the  $\rho_{hv}$  panel. Low  $\rho_{hv}$  values outside of the yellow circles can be attributed to a combination of low signal and/or the presence of a rain-hail mixture present in stronger reflectivities.



## COOP's National Observance

The NWS Cooperative Observer Program (COOP) has around 10,400 observational sites throughout all 50 states and U.S. Territories. Most of the sites are monitored by volunteers who take and record daily meteorological observations. The data are invaluable in assessing information for climate, hydrological and meteorological purposes and impacts including disaster relief funds, insurance and legal payouts and disputes, transportation needs, energy industry needs, assessments and demands on the future to name but a few. Data from many of the COOP sites are also used in meteorological and hydrological forecast models.

In the past, COOP observers would all send the data in via paper forms. The forms were filled in with daily observations but mailed once per month for quality control and analysis to the National Climatic Data Center (NCDC). While monthly forms are still mailed to NWS Forecast Offices and then sent onto NCDC, now over 30 percent of the data collected is done so daily via Internet and phone data collection sources.

A NWS goal over the next two years is to increase the percentage of COOP observers transmitting their observations daily from 30 to 80 percent. To accomplish this, the NWS is working on methods that make taking observations easier on the observers including data loggers that store the data. This would allow observers to log and transmit daily data for days that they were out of town, or dial into their system and trigger a daily observation. Tools that allow the observers to view daily maps of COOP data and compare their data to climate normals are also being created.

One challenge of the COOP Program is finding volunteer observers for all of the

observation sites so that long-term records can continue. On average, the NWS is experiencing a net loss of 200 COOP observers per year. Those interested in becoming a COOP Observer should visit the following site to learn more about the responsibilities and requirements.



*A COOP Observer checking the Fisher Porter rain gauge.*

Contact information is also available on the site. <http://www.nws.noaa.gov/om/coop/become.htm>.

This long-standing network is critical to tracking the climate of the US. For this reason, the NWS must move forward with economical improvements on the system. Because fully automating the system is not feasible from a cost perspective and, human observers add critical data such as snowfall and snow depth data, and details about weather events that the equipment can't provide, volunteer observers will continue to be much in demand. The meteorological community and others will continue to rely on these dedicated NWS COOP observers and their data for numerous applications.

**Joel Cline**  
*NWS Climate Observations  
Program Leader*

**Janice Bunting**  
*Contributing Editor*

## NWA Sponsored Annual Meetings & Conferences

**The 14<sup>th</sup> Annual High Plains Conference:**  
**Aug. 12-13**

Sponsored by the High Plains AMS/NWA Chapter, it will be at the Student Union Building on the campus of Dodge City Community College in Dodge City, Kan. Abstracts — including student competition entries — are due July 15. (<http://www.highplains-amsnwa.org>)

**35<sup>th</sup> Annual Meeting of the NWA:**  
**Oct. 2-7:** See pages 4-5 for details.

**The National Flood Workshop:**  
**Oct. 24-26**

Sponsored by many agencies including the NWA, it will be in Houston, Texas.

## Other Meetings and Conferences

**NOAA/NWS Eastern Region Flash Flood Conference: June 2-4**

Aimed at improving flash flood forecast, warning performance and public action response, it will be at the Woodlands Inn and Resort, Wilkes-Barre, Penn. Sponsored by the NOAA/NWS Eastern Region, NOAA/NWS Weather Forecast Office in Binghamton, N.Y., and the Susquehanna Flood Forecast and Warning System. ([www.erh.noaa.gov/bgm/research/ERFFW/](http://www.erh.noaa.gov/bgm/research/ERFFW/))

**17<sup>th</sup> Conference on Satellite Meteorology and Oceanography:**  
**Sept. 27-30**

Sponsored by the American Meteorological Society, the conference will be held in Annapolis, Md. ([www.ametsoc.org/MEET/meetinfo.html](http://www.ametsoc.org/MEET/meetinfo.html))

**14<sup>th</sup> Annual Great Divide Workshop**  
**November 2-4**

This workshop will be held at the Crowne Plaza in Billings, Mont. Send abstracts by Oct. 1. ([www.wr.noaa.gov/byz/greatdivide/welcome.php](http://www.wr.noaa.gov/byz/greatdivide/welcome.php))

## University of Missouri American Meteorological Society (AMS) and NWA Meteorology Club Meeting

On March 17, the University of Missouri AMS and NWA Meteorology Club had its second meeting of the semester. Bruce Jones of Midland Radio Corporation gave a brief history of NOAA Weather Radio and his work with the radio business. He then gave a presentation on the Northeast

Kansas storms of May 17, 1896. Club officers followed with their reports.

The club is taking part in some interesting activities during the next few months. The Campus Weather Service hosted the spring severe weather workshop on April 10. They've also been

selling Yankee Candles as a fundraiser.

Club members were encouraged to apply for officer positions for the 2010-2011 school year; elections will be held at the next meeting.

**Traci Fehnel**  
*Meteorology Club Secretary*

## The Great Hurricane Blowout Launched by NWA Partner FLASH®

The Federal Alliance for Safe Homes, Inc.—FLASH® launched a new campaign titled the “Great Hurricane Blowout” this spring. Sponsored by Kohler and State Farm, the Blowout is a first of its kind, layered social media campaign that will promote hurricane preparedness through the Internet and social media channels like Facebook, Flickr, Twitter and YouTube. FLASH® is a NWA partner.

With a host of experts like Ed Del Grande (aka “Ed the Plumber”) participants are guided through six phases of safety and preparedness. They can create personalized plans that answer important questions about evacuation, supply kits, home hardening, personal safety and more. Once individuals and families have their plans ready, they are encouraged to affiliate with a nonprofit and get trained to provide volunteer support in the event a hurricane hits their community.

“We built the Great Hurricane Blowout because we are convinced that making safety fun and educational is our best chance to spark widespread preparation activity,” said FLASH President/CEO Leslie Chapman-Henderson.

The campaign rallying point was a pledge to join up and “Dine in the Dark” on June 1. Dine in Dark encouraged individuals, families and the new crop of volunteers to turn off the lights and prepare a meal by cooking up “power-free” recipes. This gave participants a chance to test drive their newly created disaster plans while keeping hurricane preparedness top-of-mind. NHC Director and NWA Past President Bill Read was the first person to pledge to “Dine in the Dark.”

As a FLASH® partner, the NWA encourages all members to spread the word about hurricane preparedness. Resources include the “Great Hurricane Blowout” Web site [www.greathurricaneblowout.org](http://www.greathurricaneblowout.org), the NHC Hurricane Preparedness Week page: [www.nhc.noaa.gov/HAW2/english/intro.shtml](http://www.nhc.noaa.gov/HAW2/english/intro.shtml) and FLASH® [www.flash.org](http://www.flash.org).



## Dates 2 Remember

**June 2-4:** NOAA/NWS Eastern Region Flash Flood Conference, Wilkes-Barre, Penn.

**June 15:** Application period ends for Meteorological Satellite Applications Award Grant

**June 21-27:** Lightning Safety Awareness Week

**July 1:** NWA Annual Award Nominations due (see page 1)

**Oct. 2-7:** 35th National Weather Association Annual Meeting, Tucson, Ariz.

**Oct. 24-26:** National Flood Workshop, Houston, Texas

See page 7 for more Professional Development Opportunities and details about attending the 35<sup>th</sup> NWA Annual Meeting!

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