



The NWA: Connecting  
operational meteorologists  
in pursuit of excellence  
in weather forecasting,  
communication, and  
service.

No. 14 – 6

# Newsletter JUNE

2014

## Keeping an 'Eye' on Tropical Research Data

Jennifer M. Collins, University of South Florida

Paul T. Flaherty, NOAA AOC

Tropical cyclones develop over the warm open ocean, and while satellites have been able to track their movement since 1961, aircraft reconnaissance has remained an important eye in the sky to get the most accurate information about the storm. Since its creation in the early 1960s, the Hurricane Hunters of the [NOAA Aircraft Operations Center \(AOC\)](#) has provided sophisticated atmospheric data in the hurricane environment to aid NOAA and the National Hurricane Center (NHC) in depicting storms more accurately and in predicting hurricane track and intensity.

Some of the NOAA AOC's duties include weather research and data accumulation, overseeing aircraft use pertaining to weather events, and providing planning services for fisheries and coastal management. During the hurricane season, the aircraft and crew of the NOAA Hurricane Hunters gather data in and around tropical systems, providing this information to organizations such as the NHC. This information is also available to the media, emergency managers, and to the public in near-real time. While the data are used by computer models to help forecast the track and intensity of the storm, they are also used by forecasters to verify pertinent storm information forecasted in prior model runs.



*Figure 1: NOAA's AOC Fleet. The G-IV is at the back middle, the two WP-3D Orion planes are at the back right and left, the King Air is at the front middle, the Twin Otters are the blue planes second from front left and right, and the Turbo Jet Prop Commanders are at the front left and right (courtesy of NOAA AOC)*

### NOAA Hurricane Hunter Aircraft and Instruments

While Figure 1 shows the entire AOC fleet, there are two platforms used by the Hurricane Hunters:

- the Lockheed WP-3D Orion, which flies into tropical systems, including the hurricane's eyewall, at altitudes of 1,500-12,000 ft, and
- the Gulfstream IV (G-IV) jet, which flies above and around the storm at altitudes of 40,000-45,000 ft.

See EYE, page 6

### Pre-registration for the NWA 39th Annual Meeting is now open!

We are planning an exciting agenda for the  
Oct. 18-23 event in Salt Lake City, Utah!

See [page 5](#) for pre-registration details. Other information,  
including exhibit and sponsorship opportunities,  
is on the [meeting webpage](#).

## INSIDE THIS EDITION

President's Message	2	NWA Awards	5
ASPCA Heat Advisory	3	NWA Annual Meeting	7
Be Prepared this Hurricane Season	4	New JOM Papers	8
New NWA Members	4	Professional Development	8
NWA New Staff Members	5	Sol Hirsch Education Grant	9
Annual Meeting Pre-registration	5	Important Dates	9

# Beating the Heat this Summer

Jeff Craven, NWA President

I was invited to give a presentation for the Milwaukee Heat Task Force meeting on May 13. I gave an update on recent heat waves in Milwaukee County and discussed the criteria and climatology of NWS Heat Advisories and Excessive Heat Warning conditions. This was an amazing and eye-opening Integrated Working Team with attendance in excess of 50 professionals. Participating organizations included the Wisconsin Department of Health Services, Milwaukee Health Department, Milwaukee County Department on Aging, Milwaukee County Emergency Management, Red Cross, Milwaukee County Parks, Aurora Psychiatric Hospital, Guest House of Milwaukee, City of Milwaukee Housing Authority, Milwaukee Department of Public Works, We Energies, Froedtert Teaching Hospital, and others. After a frigid winter, the thought of a heat wave is actually somewhat positive, but let's look into the statistics a bit further.

The NWS tracks nine categories of weather-related deaths each year. Over the past 10 years, the annual average for heat related deaths in the United States has been 123 per year, which is the highest of the nine categories. This represents 19 percent of all weather-related deaths per year during that period. Heat-related deaths were the top category in 2006, 2007, 2010, 2012 and 2013. There were a staggering 1,021 deaths from heat in 1995, and 502 deaths in 1999. Only hurricanes (1,016 deaths in 2005) and tornadoes (553 deaths in 2011) can rival these sobering statistics.

Averaged over the past 16 years, 152 heat-related fatalities occur each year in the U.S. Tragically, averaged over that same time period, each year an average of 38 children die of heatstroke after being left in parked cars. Jan Null (Adjunct Professor of Meteorology at San Francisco State University, California, and a 24-year veteran with the NWS) has worked with Emergency Medicine Physicians to publish a formal paper in "[Pediatrics](#)", the official journal of the American Academy of Pediatrics. He has also developed an informative fact sheet available on his [website](#). As you can see in the grim map of child vehicle heat deaths, this is a national concern and is not confined to any particular geographical area.

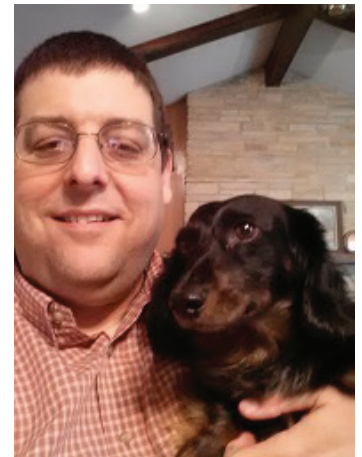
In the aforementioned paper, Jan and his co-authors found that the average mean increase in temperature of a parked car on a sunny day is 3.2 F every five minutes, with 80 percent of the total temperature rise occurring in the first 30 minutes. As it turns out, even rolling down the window 1.5 inches in an attempt to keep the car cool does not significantly slow the rate of warming or decrease the maximum temperature attained. Other experiments found little difference when the windows are opened eight inches. Frankly, all of these differences are insignificant to the health of a small child when the interior temperatures are in excess of 120 F. They also examined internal car

temperatures with initial temperatures from 72 F to 96 F, and found that the typical temperature rise was ~40 F, quickly warming the vehicle into the 110–150 F range. A [WeatherBug® YouTube video](#) gives a demonstration of what happens when a car heats up. Since the medical definition of heat stroke is a core body temperature of 104–107 F, you can imagine how quickly a parked car with closed or even cracked-open windows could be dangerous and even fatal for a small child, or anybody for that matter.

Coordinating with Jan Null, John Gordon of the NWS Louisville office worked with the University of South Alabama Meteorology Club in 2009–2010 to develop the slogan "Beat the

Heat, Check the Backseat." This slogan has been adopted across the NWS for heat safety and awareness campaigns. Additional information on all kinds of heat safety can be found on this [NWS Heat Safety webpage](#). In addition, WSI forecaster August Veron helped create a [Facebook](#) page with the same name as the slogan.

The risk of harm is not limited to the backseat, or to just humans. Our friends at the American Society for the Prevention of Cruelty to Animals (ASPCA) also have a similar safety campaign for pets (see [facing page](#)). According to the ASPCA, "Each year, thousands of beloved companions succumb to heatstroke and suffocation

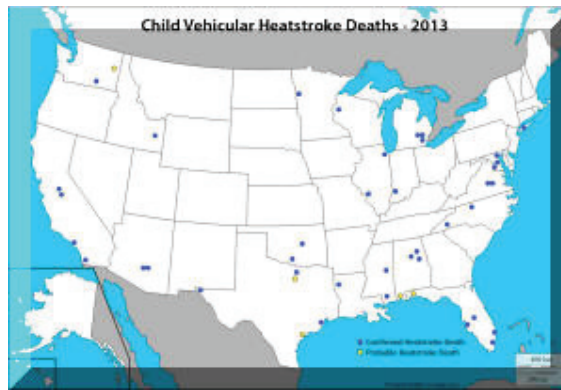


*Jeff and Yogi*

when left in parked cars. It happens most often when people make quick stops—the dry cleaners, the bank or the local deli." The ASPCA article goes on to quote similar studies to those done by Jan Null mentioned earlier, showing that the temperature rise in cars can be double the outside temperature, even with windows cracked open.

The ASPCA also has this advice: "If you see something, say something. If you see a dog alone in a vehicle, immediately call animal control or 911. Local law officials have the ability to enter the vehicle and rescue the pet." It seems this advice would apply to human children as well, and Jan's site also recommends calling 911 if you see a child unattended in a hot vehicle.

Let's all do our best to get the word out to educate people about how deadly heat can be. Even more so than the other killer weather events, it seems that many of these heat-related deaths to both children and pets are avoidable.



*Courtesy Jan Null, Golden Gate Weather Services*



*Courtesy NWS*



**102°!** On an 85° day, it only takes ten minutes for the inside of your car to reach 102°, even when the windows have been left open an inch or two.

Within 30 minutes, a car's interior can reach 120°. When the temperature outside is a pleasant 70°, the inside of your car may be as much as 20 degrees hotter.

Shade offers little protection on a hot day and moves with the sun. Pets most at risk for hyperthermia (overheating): young animals, elderly animals, overweight animals, those with short muzzles and those with thick or dark-colored coats.

### A FORM OF CRUELTY—LITERALLY

Many states and local governments have laws that prohibit leaving an animal unattended in a motor vehicle under dangerous conditions, which include hot days. Under these laws, police, animal control agents, peace officers and others may be authorized to enter by whatever means necessary to remove the animal. You could have your car damaged, be charged with a crime, and fined or imprisoned. It's not worth it—don't leave your pet in the car!

<http://www.nws.noaa.gov/om/heat/index.shtml>

<https://www.facebook.com/?sk=nf#!/pages/Beat-the-Heat-Check-the-Back-Seat/101894243204772>

## PLEASE LEAVE YOUR PET AT HOME IN HOT WEATHER!

### IF YOUR DOG IS OVERCOME BY THE HEAT

Bring down body temperature by soaking the animal in cool (not ice) water, but make sure water does not get into the mouth or nose of an unconscious animal. Seek immediate veterinary care.

### HOT WEATHER TRAVELING TIPS

- Get a veterinary checkup before traveling and make sure you have the necessary vaccination certificates for the area you will be visiting, as well as flea and tick treatments.
- Carry a gallon thermos of cold water or bring along a two-liter plastic bottle of water you froze the night before.
- Exercise your pet during the coolest parts of the day (dawn and dusk), and never immediately following a meal.
- Hot asphalt and tar can burn sensitive paw pads. Walk your pet on grass or dirt when possible.
- Provide shade when your pet is outside on a hot day.

**OVERHEATING KILLS!  
DON'T PUT YOUR  
PETS IN DANGER**



The American Society for the Prevention of Cruelty to Animals®

NATIONAL HEADQUARTERS  
424 East 92nd Street, New York, NY 10128-6804  
212-876-7700 • [www.asPCA.org](http://www.asPCA.org)

©2010 ASPCA®. All Rights Reserved.



# Be Prepared and Aware This Hurricane Season

Justin Gibbs, Specialized Operational Services Committee

The 2014 Atlantic Hurricane season is underway. While conditions appear favorable for below normal activity this season, with the [Tropical Meteorology Project](#) forecasting nine named storms, three hurricanes and one major hurricane and [NOAA](#) forecasting eight to 13 named storms, three to six hurricanes and one to two major hurricanes, the reality is that it just takes one storm to result in a very destructive season for any coastal community. Being prepared and remaining aware is critical to protecting yourself and your property from the threat of tropical storms and hurricanes.

There are a number of resources available on the Web to assist with both preparedness and awareness through the season. The Federal Emergency Management Agency (FEMA) provides a [comprehensive page for before during and after the storm](#). The page links to FEMA Independent Study courses designed to educate professionals and the general public on preparing for and responding to hurricane emergencies. The page also features links to other federal agencies involved in hurricane preparedness.

Parents, educators and kids can go to [www.ready.gov/kids](#) for an interactive page that suggests creative ways to involve children in the preparation process, educate them on how to stay safe, and better understand the hurricane threat. The page provides coping mechanisms and how to plan for keeping your family safe during a storm.

The National Hurricane Center's [Hurricane Preparedness Week](#) page examines seven different areas of hurricane preparedness and response, one for each day of Hurricane Preparedness Week. The page links to YouTube videos and audio recordings in both English and Spanish that provide information about hurricanes, storm surge, wind, inland flooding, the process used in forecasting hurricanes, how to develop a plan, and what to do and expect after the storm. Additional information is available in both English and Spanish via the Tropical Cyclone preparedness guides also available on the page.

This guide describes not only the preparation process but where to get important information during the storm on the web, through local media, and NOAA Weather Radio.

The National Weather Service continues to develop new ways to communicate storm information during a hurricane emergency. In addition to the legacy text products the National Hurricane Center

now produces probabilistic wind speed information forecasts up to 120 hours in advance of the arrival of the storm. The forecasts use an ensemble of 1,000 realistic storm tracks, size and intensity based on previous forecast errors, storm climatology, and current model spread. The product is designed to give a reliable forecast for the likelihood of 34, 50 and 64 knot wind speed. This information is available as part of each storm advisory and available at [www.hurricanes.gov](#) when there are active storms.

Experimental Storm Surge Flooding maps will be brand new for 2014. These maps use an ensemble approach to produce storm surge inundation above ground level for locations in danger of flooding. The new maps use a color-coded approach vetted by social scientists designed to increase action in danger areas and reduce shadow evacuation in areas that are unlikely to experience flooding. Click for more information.

Local NWS Weather Forecast Offices will also produce Tropical Cyclone Impact Graphics, available at [www.weather.gov/tcig](#), during storms. The graphics incorporate the official National Hurricane Center track, known previous forecast errors in size, track and intensity, and input from local forecasters into a comprehensive threat analysis using a 2.5x2.5-km grid. Forecast values are tied to local criteria and wording tailored to the local area is displayed relative to each storm threat.

These resources, combined with others available throughout the weather enterprise, should prove useful for both you and your users and customers throughout the upcoming season and seasons to come.



## Welcome to the NWA!

*The following individuals became NWA members in May:*

### Regular/Military/Retired Members

Lourdes Avilés  
Michael Baldwin  
Brian Barjenbruch  
Robin Betsch  
Cyrena Briede  
James Briede  
Stephen Cantonwine  
Connie Clarstrom  
Joseph Coffman

Brittney Coleman  
Claudia Contreras  
Andy Foster  
Justin Goldstein  
Kyla Grogan  
Donal Harrigan  
Jay Hobgood  
Julie Kelly  
Matt Lanza  
Trent Magill  
Michael Milton

Bradley Muller  
Morgan Nelson  
Royal Norman  
Eric Snitil

### Student Members

Michael Camron  
Jesse Conner  
Alden German  
Caleb Grunzke  
Jacqueline Laviolette

Candace Monacelli  
Catherine Opalka  
Russell Peterson  
Kristina Poggemiller  
Matthew Routzahn  
Meghan Tebow  
Jonathan Thornton  
Jessica Tomaszewski  
Benjamin Trabing

## NWA Office Welcomes New Staff Members



*NWA staff Hailey Wilson (l) and Hulda Johannsdottir*

On June 19, the NWA said good-bye to Assistant Executive Director Ruth Aiken and Administration Assistant Margaret Baron when they retired. The Raleigh office was closed on that date, and all NWA business functions are now being handled at the new office in Norman, Oklahoma.

Two new members have joined Executive Director Janice Bunting at the Norman office. They are Member Services Specialist Hailey Wilson and Communications Coordinator Hulda Johannsdottir. Both are quickly learning tasks that will support member services and daily office tasks. We will tell you more about Hailey and Hulda in another Newsletter issue.

Welcome to the NWA Hulda and Hailey!

## 39th NWA ANNUAL MEETING PRE-REGISTRATION: Now Open!

### 2014 NWA Annual Meeting Preregistration Rates

These prices are valid for preregistrations submitted through Sep. 15, 2014. Prices increase after that date.

Category	Multi Day Packages These options save money if you are planning to attend more than two days.		1 or 2-day Attendance This option is for attendees only attending 1 or 2 days.		
	All Events Special Sunday - Thursday Includes all meeting sessions Sunday through Thursday and the Wednesday Awards Luncheon. <small>Tuesday Women's lunch must be purchased separately.</small>	General Session Package Monday - Thursday Includes all meeting sessions Monday through Thursday and the Wednesday Awards Luncheon. <small>Tuesday Women's lunch must be purchased separately.</small>	Sunday Rates	Monday, Tuesday, Thursday Rates Price per day. <small>Tuesday Women's lunch must be purchased separately.</small>	Wednesday Rates Includes a ticket to the Wednesday Awards Luncheon.
NWA Member or Presenter	\$435	\$335	\$150	\$150	\$190
NWA Student or Retired Member	\$180	\$145	\$60	\$65	\$105
Non-member	\$540	\$400	\$210	\$210	\$250
Non-member Student or Retired	\$260	\$200	\$95	\$100	\$140

## NWA Awards - A great way to reward excellence

Recognize your peer's accomplishments in meteorology and related fields by nominating them for an NWA Award. Nominations are being accepted through August 5.

There are awards for:

- Individual & Group special achievements
- Applied Science
- Outreach & Education
- Leadership
- Public Service
- Aviation
- Broadcasting
- Local Chapters

Awards will be presented at the 2014 Annual Meeting Awards Luncheon Oct. 22 in Salt Lake City, Utah.

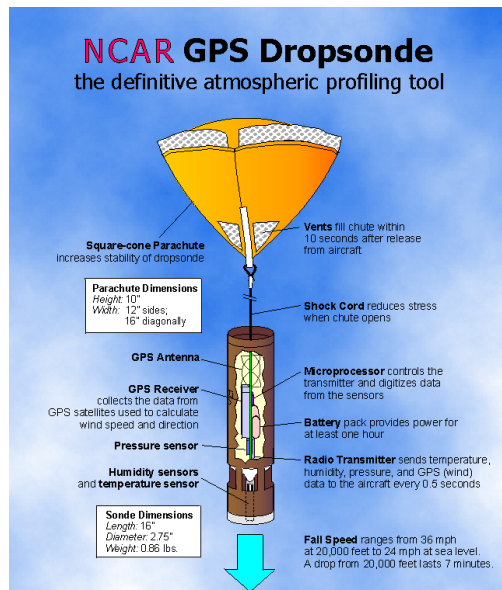
Go to the [NWA Annual Awards page](#). The links to submit nominations are located under Award Categories.

Nominate someone today!

**Nominations  
close Aug. 5!**

AWARDS

As the demand for high-quality data acquisition in and around tropical cyclones increased over time, the technology and aircraft used for reconnaissance missions became more advanced and specialized. Meeting this demand, AOC has either installed or helped develop a wide variety of specialized equipment currently found on the NOAA hurricane aircraft. Examples include the GPS dropsonde atmospheric vertical profiling system, airborne expendable oceanographic temperature/current/salinity probes, a CO<sub>2</sub> air temperature radiometer, a stepped frequency microwave radiometer (SFMR), C-band and Ku-band scatterometers, and advanced radar for both weather analysis and data collection. With the recent addition of the G-IV Tail Doppler Radar, both platforms can now detect precipitation and wind speed, obtaining 3-D wind fields within the storm environment.



**Figure 2: GPS Dropsonde**  
(courtesy of NCAR)

GPS dropsondes (Figure 2) are deployed from the aircraft in and around the storm. During the descent, the dropsonde transmits meteorological information such as atmospheric pressure, relative humidity, air temperature, altitude, wind direction and speed back to the aircraft. This information is quality controlled, coded, and transmitted from the aircraft in near real-time by onboard flight meteorologists.

The aircraft also have a multitude of fixed aviation and scientific probes. One unique example is the cloud physics probe on the P-3s which uses lasers to detect individual particles in clouds. Another important piece of equipment is the SFMR (Figure 3), which estimates surface winds by detecting microwave radiation emitted from the ocean's surface.

### Emergency Response

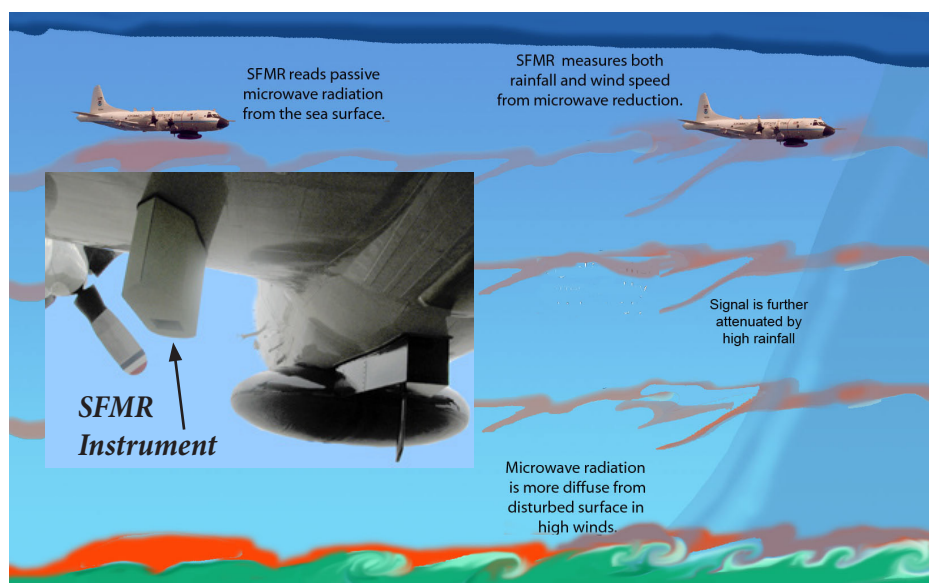
The work of the AOC does not end once a hurricane makes landfall. During the aftermath of a land-falling hurricane, the AOC provides information and services, as directed, towards organized relief efforts. For example, after Hurricane Katrina made landfall along the U.S.

Gulf Coast in 2005, NOAA crews flew over affected areas documenting breached levees, reporting on the condition of NOAA facilities, and providing high-resolution imagery of the area. Additionally, AOC aircraft may be called upon to provide aerial information to assist with relief efforts, as was done after the September 11, 2001, attacks in New York and Washington, D.C., and the 2010 Deepwater Horizon oil spill in the Gulf of Mexico. With international events, NOAA works closely with other government agencies to provide remote sensing capabilities. After the devastating January 2010 earthquake near the capital of Haiti, AOC crews were once again called upon to help with the relief efforts.

### Data Availability

While just one of several hurricane-prone states, Florida experiences at least twice as many landfalling hurricanes as any other state. With its shallow bathymetry, the infrastructure built near its shores, and the high coastal population density, the costs of Hurricane Andrew could easily be surpassed if a similar storm were to hit a major Florida city in the future. While the data collected by NOAA hurricane aircraft are used to understand the storm's structure and upper-level steering winds in real-time, the data are also important for research scientists looking to better predict and prepare us for the next Hurricane Andrew. The NOAA Hurricane Hunters and the University of South Florida have forged a collaboration through the [NOAA Preserve American Internal Funding initiative](#) to digitize, preserve, and make publically available years of historical flight and weather data to benefit future research and public education. With so many vulnerable locations that may one day be in the path of a landfalling hurricane, such information is vital. Ultimately, emergency managers and the public benefit most from these data, especially if they one day find themselves making critical decisions based on a forecast of a major tropical cyclone heading their way.

NOTE: A longer version of this article has been published by the journal "The Florida Geographer" in an article titled, "[The NOAA Hurricane Hunters: A Historical and Mission Perspective](#)". The authors thank the editor of this journal for giving permission to summarize that article for the NWA Newsletter.



**Figure 3: Schematic of the SFMR instrument and how it works** (courtesy of NOAA)



## 39th NWA ANNUAL MEETING

Salt Lake City, Utah: 18–23 October 2014

### Where:

The host hotel is the Sheraton Salt Lake City Hotel (150 West 500 South, Salt Lake City, Utah, 84101) where all meetings will be held. (<http://www.sheratonsaltlakecityhotel.com/>)

Host hotel reservation options:

[Click to reserve on-line](#)

Call: 1-888-627-8152 (Ask for the National Weather Association room block)

Nightly rates: One or two occupants is \$103 + tax; three occupants is \$113 + tax; four occupants is \$123 + tax. **NWA rates apply until Sept. 15, 2014, or until sold-out, whichever comes first.**



### Theme:

*"Building a 21st Century Weather Enterprise: Facilitating Research to Operations – Optimizing Communication and Response"*

Among the greatest challenges for the Weather Enterprise in the 21st century is to produce the highest level of science-based hazard information, while at the same time communicating the associated uncertainty, impacts, and risks in a manner that results in the maximum benefit to society. Events such as the Moore and El Reno tornadoes in Oklahoma and the Yarnell Hill and Rim wildfires in the Western U.S. highlight the need for both excellent forecasts and effective communication. The results from innovative research must be efficiently transferred to governmental and commercial providers of environmental information services. Additionally, forecasts must be effectively communicated in a manner that elicits an informed response by private citizens, organizations, businesses, and emergency managers and other first responders. Given these challenges, the focus of the 2014 NWA Annual Meeting will be to share research results that can improve operations and on communication platforms and methods that promote appropriate societal response.

### Important Dates:

- 1 Sept. Deadline for abstract corrections
- 15 Sept. Sheraton room block reservations end  
Attendee preregistration ends (prices increase after this date)  
Purchase an Exhibit booth or sponsorship by this date to take advantage of all benefits
- 18 Oct. Annual Meeting begins  
NWA Scholarship Golf Outing at [Stonebridge Golf Club](#)  
Exhibits start setting-up
- 19 Oct. Broadcast Meteorology Workshop  
Exhibits Open  
Seventh Annual Student Session
- 20-23 Oct. General Sessions
- 22 Oct. NWA Awards Luncheon

*For more information on exhibits, special accommodations, registration and the overall meeting program, keep checking the 2014 [Annual Meeting Page](#) or contact the NWA office at 405-701-5167.*

*NWA will provide updates on-line, on the [NWA 2014 Annual Meeting Facebook Page](#), [Facebook Page](#), [Twitter](#), and other social media. Please use the hashtag #NWAS14 for 2014 Annual Meeting posts.*

### Abstracts and Meeting Program:

Over 300 abstracts were submitted before the deadline, and this number exceeded our expectations. Thank you to all who submitted abstracts! The Program Committee will notify presenters, via email, regarding the disposition of their abstracts by 18 July 2014. A preliminary agenda will be posted on the NWA website by early August for presenters to review.

### Contacts:

Annual Meeting Program Committee Chair:  
Randy Graham  
Science and Operations Officer  
National Weather Service Forecast Office  
Salt Lake City, UT  
[annualmeeting@nwas.org](mailto:annualmeeting@nwas.org)

Broadcaster Workshop Program Chair:  
Mike Goldberg  
WTVR-TV  
Richmond, VA 23230  
[mgoldberg@wtvr.com](mailto:mgoldberg@wtvr.com)

<http://www.golfstonebridgeutah.com/>

## NEW JOM PAPERS

Three papers have been published the NWA's Journal of Operational Meteorology (JOM) since our update in May: one Short Contribution and two Articles. There are four categories of papers that can be published in JOM.

To see their names and descriptions, go to [www.nwas.org/jom/call\\_for\\_papers.php](http://www.nwas.org/jom/call_for_papers.php).

### JOM 14 (Article)

Usage of Color Scales on Radar Maps, by B. Bryant, M. Holiner, R. Kroot, K. Sherman-Morris, W. Smylie, L. Stryjewski, M. Thomas, and C. Williams.

### JOM 15 (Short Contribution)

Lake-Effect Freezing Drizzle: A Case-Study Analysis, by J. Arnott and J. Chamberlain.

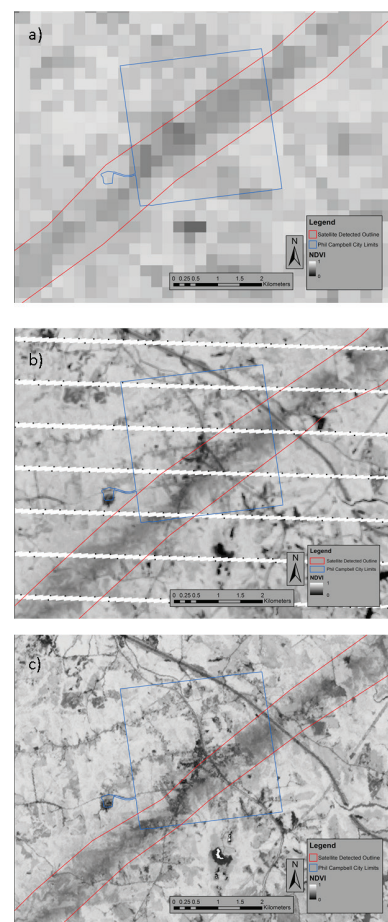
### JOM 16 (Article)

Satellite-Based Identification of Tornado Damage Tracks from the 27 April 2011 Severe Weather Outbreak, by A. Molthan, J. Bell, T. Cole, and J. Burks.

Thank you to the JOM authors, reviewers and editors for continuing to make the JOM a success. You can read the papers by logging on to the [NWA Member Portal](#) and clicking on JOM link under Additional Member Resources on the right.

[Click for information on submitting a paper to JOM and other author instructions.](#)

*At right: Figure 3 in JOM 16 showing a comparison of single-day NDVI images from a) Terra MODIS on May 4, 201, b) Landsat-7 ETM+ on May 4, 2011, and c) Terra ASTER on May 20, 2011, all focused on a portion of the damage track near Phil Campbell, Alabama.*



## 2014 NWA sponsored Annual Meetings, Conferences and Special Events ([click titles to view websites](#))

### August 6-7: 16th Annual High Plains Conference

The High Plains Chapter of the AMS and NWA sponsor this event. Abstracts are being accepted. The conference also includes invited speakers. Students who present at the conference have their registration fees waived and are eligible for awards.

### Oct. 18–23: 39th NWA Annual Meeting

It will be held in Salt Lake City, Utah (#nwas14) at the downtown Sheraton Hotel. Attendee preregistration and exhibitor registration is open. Attendee prices increase after Sept. 15. Sponsorship opportunities are available (see meeting page for additional details).

### Oct. 17-22, 2015: 40th NWA Annual Meeting (no website just - just save the date!)

The Renaissance Oklahoma City Convention Center Hotel is the host site for the meeting. Meetings will be held next door in the Cox Convention Center. It is our 40th anniversary, so plan to attend this informative meeting and celebration.

## Other Meetings, Conferences and Special Events

### Sept. 3-7: Society of Environmental Journalists 24th Annual Conference

“Risk and Resilience” is SEJ’s theme for this conference. Many of the topics are weather-related such as the all-day workshop “Disasters and Extreme Weather: Gathering the News and Keeping Safe.”

### Nov. 3–7: 27th Conference on Severe Local Storms

It will be at the Madison Concourse Hotel in Madison, Wisconsin. The abstract submission deadline is July 1.

### Nov. 19-21: 2014 FLASH Annual Conference – Resilience Revolution

The Federal Alliance for Safe Homes will hold this year’s event in Orlando, Florida, discussing resilience through building codes and construction practices, policy, research, and communications.



## Sol Hirsch Education Grant Dollars at Work!

Jennifer Hogan and Eleanor Vallier-Talbot, NWA Education Committee

At the NWA Annual Meeting in Charleston, Education Committee Co-Chairs Jeff Tongue and Eleanor Vallier-Talbot announced the 2013 recipients of the Sol Hirsch Education Fund grants. Five deserving schools and educational institutions received grant monies to fund their projects. One grant was for an after-school program held at the YWCA in Evansville, Indiana, titled "Weather Central." Here's some great feedback from the YWCA about the grant funds at work:

“

...One of our core programs at the YWCA is Live Y'ers, an after-school and mentoring program for at-risk young girls. In 2013, we served over 300 girls in our Live Y'ers program. With your help, we were able to greatly enhance our segment on weather. With up-to-date, hands-on equipment, our "Weather Central" area has proven to be extremely popular with the girls. The cloud poster and weather map set a nice stage, and they have particularly enjoyed pretending to be actual newscasters by giving our local weather report to each other. With the unpredictable weather we've had recently in southern Indiana, this topic is of particular interest. We hope to build on our weather instruction next year and help the participants put together first-aid and weather-emergency kits for their homes.

The pictures I have attached show some of the girls enjoying the items we purchased with the grant money. The anemometer and tornado tubes were a big hit.

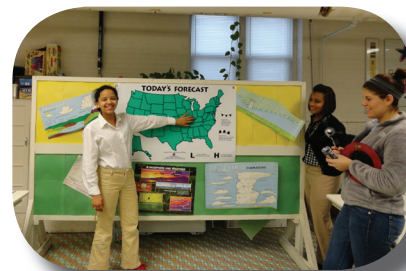
Thank you again for your generosity. It is due to caring partners like you that we are able to make a difference in the lives of these young girls.

”

Janet Keller, YWCA

Thanks to your donations to the Sol Hirsch Education Grants, they have made a big impact across the country through hands-on learning and exposure to meteorology and atmospheric sciences in a wide variety of ways dating back to 1993. For more details about some of the past projects, go to the [NWA Education Committee](#) webpage.

It is now easier than ever for you to help the NWA continue to award these grants, which are 100% funded by member donations! [Donate to NWA Funds](#) - just fill out the form with the amount you want to donate to the Sol Hirsch fund. Thank you for your continued support!



### IMPORTANT DATES

August 5

Nomination deadline for 2014 NWA Annual Awards  
(see page 5)

August 6-7

16th Annual High Plains Conference

September 15

Last day to pre-register for the NWA Annual Meeting at lower rates and to reserve a hotel room at the group rate.  
(see page 5)

NWA Newsletter (ISSN 0271-1044)

Technical Editor: Winnie Crawford

Editor and Publisher: Janice Bunting, Executive Director

Published monthly by the National Weather Association, 350 David L Boren Blvd Ste 2750, Norman, OK (USA) 73072-7125; phone ~ (405) 701-5167; [exdir@nwas.org](mailto:exdir@nwas.org); [www.nwas.org](http://www.nwas.org)

Submit newsletter items to [nwanewsletter@nwas.org](mailto:nwanewsletter@nwas.org) using the Instruction for Authors at [http://www.nwas.org/newsletters/newsletter\\_instructions.php](http://www.nwas.org/newsletters/newsletter_instructions.php).

Members receive the Newsletter on-line and access to an on-line portal which includes the Journal of Operational Meteorology as part of their regular, student or corporate membership privileges.

Address, phone number, email and affiliation changes can now be made online: [member.nwas.org](http://member.nwas.org).