



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

No. 12 – 11

# Newsletter NOVEMBER

2012

## Joint Polar Satellite System (JPSS) Polar Satellite-Gap Mitigation-Request for Public Comment

The National Oceanic and Atmospheric Administration (NOAA) has long been concerned about the potential for a gap in polar satellite coverage in the afternoon orbit. In addition to reports from Inspector General and the Government Accountability Office on this topic, NOAA has also convened an Independent Review Team (IRT) to review the progress of our satellite programs and identify the challenges ahead. These reports have all substantiated NOAA's concerns regarding the gap.

NOAA is taking positive steps to mitigate the negative impacts to NOAA's numerical weather forecasts that could be introduced by a lack of polar satellite data. To this end, NOAA has commissioned an investigative study to broadly explore all available options, such as substitute satellite observations, alternative non-satellite data, weather modeling, and data assimilation improvements. NOAA is convening teams of internal and external experts, industry leaders, foreign partners, and academia to study each of these areas.

As a part of this effort, and to ensure we examine all potential solutions, NOAA is also seeking comments, suggestions and innovative ideas from the public on how to preserve the quality and timeliness of NOAA's numerical weather forecasts should we experience a loss of polar satellite environmental data. Through this web portal, the public can submit ideas, review submissions from other parties, and make comments and collaborate on ideas.

Additional information as well as instructions on how to submit comments can be found at: [www.osd.noaa.gov/JPSSGAP](http://www.osd.noaa.gov/JPSSGAP).

For individuals who do not have access to the Internet, comments may be submitted in writing to: NOAA Satellite and Information Service, Advanced Satellite Planning and Technology Office, c/o David Hermreck (his address/contact info to the right).

### Related Resources:

The Independent Review Team report:

<http://science.house.gov/noaa-nesdis-independent-review-team-report>

Acting Secretary of Commerce's response: [http://science.house.gov/sites/repUBLICANS.science.house.gov/files/documents/091812\\_doc\\_decision\\_memo.pdf](http://science.house.gov/sites/repUBLICANS.science.house.gov/files/documents/091812_doc_decision_memo.pdf)

The NOAA Administrator's response: [http://www.noaa.gov/stories/2012/pdfs/UNSEC%20satellite%20oversight%20decision%20memo%20final%20signed%20\(2\).pdf](http://www.noaa.gov/stories/2012/pdfs/UNSEC%20satellite%20oversight%20decision%20memo%20final%20signed%20(2).pdf)

**Comments must be received  
by 5 p.m. on Dec. 19.**

**Proprietary information  
will not be accepted. All  
submitted comments will  
be available for public  
inspection.**

NOAA's Weather mission:  
<http://www.weather.gov/about>

NOAA's satellite programs:  
<http://www.nesdis.noaa.gov/SatInformation.html>

For further information contact:  
David Hermreck  
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Silver Spring, Md., 20910  
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## Young Meteorologist Program Helps Children Learn to Prepare for Natural Disasters

Eleanor Vallier-Talbot  
Meteorologist, NWS Boston  
Co-Chair, NWA Education Committee

The 2012 NWA Public Education Award recipient, Plan!TNow (PIN), publicly launched its online educational effort, the Young Meteorologist Program, in late September prior to the approach of Superstorm Sandy along the eastern seaboard.

The Young Meteorologist Program (YMP) was developed with the assistance of NOAA, the National Weather Service (NWS), the American Meteorological Society (AMS) and the National Education Association to bring important natural disaster preparedness information to students from kindergarten through high school. The YMP is a fun, interactive program that students can do at home or bring to their teachers to share with their entire class. As the students learn how to protect themselves from different natural disasters such as hurricanes, floods and winter storms, it is hoped that they will share this information with their families.

Sections on the website provide information for educators to introduce YMP to their students along with age-appropriate lesson plans and suggested reading materials. Once students complete the YMP and receive their certificates, it is hoped that they will want to become proactive by launching service projects in their communities. Students will also be able to share their ideas with others around the world on the PIN website.

One of the NWS's main proponents of YMP is Ron Gird, the NWS Outreach Program Manager. In a recent article on the PIN website, he said, "YMP offers a fun and interactive way to educate our youth about complex safety and preparedness issues. In fact, we have found YMP helps them not only retain the information but gets them excited to share what they have learned with friends and family—keeping everyone around them involved and safe."

For more information about PIN, check out their website at [www.planitnow.org](http://www.planitnow.org), or go to the Young Meteorologist Program directly at [www.youngmeteorologist.org](http://www.youngmeteorologist.org).

## New NWA Seal Makes Debut

Nick Walker  
Broadcast Committee Chair  
Meteorologist, The Weather Channel

The new National Weather Association Seal of Approval made its national debut in a pre-Thanksgiving weather broadcast by NWA Seal Chair Miles Muzio in Bakersfield, Calif. In displaying the new Seal, Miles told his viewers, "The National Weather Association Seal of Approval has looked [the same] for 30 years...but that is about to change...effective right here, right now." Miles explained its purpose of recognizing the excellence of individual weathercasters in the U.S. and Canada. The new Seal is now available for all NWA Seal holders to display.



Seal Chair Miles Muzio has sent a personal email to all NWA Seal holders announcing the availability of the new Seal for use on-air. He tells fellow broadcasters, "Over these three decades, the Seal has evolved in order to address emerging technologies and has become a preeminent symbol of distinction for hundreds of broadcasters and their viewers."

The email directs them how to download the Seal art in either eps or tga formats and authorizes them to immediately begin displaying the new Seal on their weather broadcasts. Seal holders are encouraged to begin displaying the new Seal on-air no later than Friday, March 1, 2013.

The new NWA Seal of Approval incorporates a simpler, bolder design than the original, and complements the new NWA logo. The design of the Seal and the NWA logo have been literally years in the making, and special thanks goes out to John Gordon, Betsy Kling, Bruce Thomas and the entire Membership and Marketing Committee who worked with Cleveland design company Nesnadny and Schwartz to develop the new logo and Seal.

NWA Seal holders should address any further questions regarding how to display or earn the Seal of Approval to either Seal Chair Miles Muzio or Broadcast Committee Chair Nick Walker, and consult the NWA Seal Qualifications and Procedures online at [www.nwas.org](http://www.nwas.org) by clicking on Broadcasters Seal at the bottom of the main page.

### New NWA Members from October 2012

#### Regular/Military/Retired

Ferdinand Aponte Rivera  
Publio Casillas  
Adam Clark  
Richard Cohen  
Mike Doll  
Christopher Geelhart  
Daniel Lauer  
Jeff Makowski  
Christopher McKinney  
Lonnie Quinn  
Jared Smith  
Shawn Smith

Daniel Surber  
Thomas Townsend  
Christopher Wright

#### Students

Michael Camper  
Joshua Clark  
Emily French  
Michael Hackenberg  
Ryan Kaufman  
Peter Mullinax  
Johnny Parker  
David Parkinson

## High Plains AMS/ NWA Chapter News

Tim Burke, Secretary  
Bill Taylor, President

The NWA High Plains AMS/NWA Chapter met via a teleconference/GoToMeeting on Oct. 30. Thirty chapter members phoned in and logged into the accompanying webinar. The Weather Loan Box our chapter funded for the Nebraska Teacher Association was a success. It is located at the University of Nebraska at Lincoln, and can be checked out by schools. Pictures of the Weather Loan Box and its contents can be seen on our Facebook page (<http://www.facebook.com/HighPlainsChapterAMS.NWA>). The next High Plains conference is on hold, with little promise of funding being available.

The webinar was hosted by Mike Moritz and Briona Saltzman, both of Hastings, Neb., Weather Forecast Officer (WFO). Mike and Briona relayed what they learned during the Phased-Array Radar Innovative Sensing Experiment or PARISE (<http://www.nssl.noaa.gov/projects/parise/>), which they participated in at Norman, Okla., this past summer. Mike and Briona reported each day as if going to work and went through scenarios on a Weather Event Simulator (WES). They were to warn on storms using only the reflectivity and velocity data from the phased-array radar, no environmental data. One advantage the phased-array radar has is its ability to take very rapid volume scans, as fast as 20 to 30 seconds. Also, the radar can be pointed in one direction and vertically scanned, dwelling on an area of interest. Mike and Briona spent approximately two hours per day going through exercises, then three to five hours assessing and reviewing their daily performance. One expert operator sat across from a novice operator, both seeing the same data. Every minute of the warning experiment was closely examined by the expert and recorded, including asking at what point the novices decided to warn, and what data helped them make that decision. One disappointing piece of information was that the year 2030 is the earliest the phased-array radars will be installed at the field offices. You can email Mike at [Michael.Moritz@noaa.gov](mailto:Michael.Moritz@noaa.gov), to obtain a copy of their PowerPoint webinar presentation.

The next meeting will be virtual and will likely be in early December. Greg Carbin, the Warning Coordination Meteorologist from SPC, is in the process of scheduling a webinar. Details will follow soon on this next meeting.

## Kudos For a Job Well Done!

As the 2012 Atlantic Hurricane Season draws to an end, the new normal after Superstorm Sandy has yet to be determined. We now have witnessed another epic multibillion-dollar disaster hitting the United States.

The cumulative damage from tropical cyclones continues to increase and many still want to ignore the calls for better mitigation. "Americans need more jobs" was the resounding theme of the recent presidential election. More work programs are needed to rebuild the infrastructure of our nation. The post Superstorm Sandy era may offer the U.S. that economic shot in the arm that is needed. The U.S. Army Corp of Engineers' massive flood prevention project in New Orleans after Hurricane Katrina (2005) had an excellent test this year with Hurricane Isaac's driving waves and storm surge into the marshes and levees of southeast Louisiana. The good news is that this multibillion-dollar flood mitigation project worked and the repeat of breached flood walls and levees was greatly reduced.

Please understand that there will always be some damage during major storms, but by having a plan and knowing the risks you can mitigate the losses. America's National Weather Service did an amazing job during the week of Hurricane Sandy's landfalls using advanced computer models and their experience to forecast an epic "Frankenstorm" Halloween event. The Thursday morning before landfall, forecasters posted an accurate five-day forecast of the probability of a massive disruption to America's largest metropolitan and economic center, the greater New York City area.

The press is usually quick to use phrases like "It hit without warning" or "Many were caught off guard" by the strength of this storm. They couldn't do that this time as Superstorm Sandy was well forecasted. It delivered a knockout punch to the power grid as well as a storm surge of nearly 14 feet above normal tide; and let us not forget the several feet of snow dumped on the mountains of Virginia. The European Centre for Medium-Range Weather Forecasts (ECMWF) forecast model did a wonderful job, outperforming the American Global Forecast System (GFS) model early on by showing an uncharacteristic hard left turn into New York City and New Jersey, which some forecasters (me included) thought hard to believe.

A great THANK YOU to the many men and women who worked around the clock to make sure that the American public was well informed of the risk posed by Sandy. The process worked well and many lives were spared by the herculean efforts of forecasters, broadcasters and emergency managers. Godspeed in the recovery efforts and please let the lessons learned from Superstorm Sandy help make America better prepared for the future.

Acting President Bruce Thomas



# Storm Monitor and Analysis Program

David Hotz and Shawn O'Neill  
NWS, Morristown, Tenn.

Jason Schaumann  
NWS, Springfield, Mo.

A best practice frequently noted in service assessments of severe weather events is situational awareness of the near storm environment. This article (and associated presentation at the 36th NWA Annual Meeting) will introduce the Storm Monitor and Analysis Program, developed as a tool for local weather forecast offices to monitor severe weather potential. This UNIX-based software is designed to accept both observed and model forecast data, such as surface weather observations, WSR-88D Velocity/Azimuth Display Wind Profiles, and data from the Rapid Refresh (RAP) and Local Analysis and Prediction System (LAPS) models, to provide a continuous weather watch of severe weather potential. The program provides updated monitoring of wind shear, helicity, buoyancy, thermodynamic and composite parameters. There are 28 parameters available to monitor, and additional parameters are being added with each new version. The Storm Monitor uses color codes to highlight parameters that meet or exceed specified thresholds.

Forecasters can display a hodograph for each station identifier. The hodograph is interactive and allows the user to modify the wind speed, wind direction and storm motion. The ability to easily display and modify the wind profile gives the forecaster a useful tool to monitor the near-storm environment, thereby increasing situational awareness.

The following images illustrate the use of the software during the tornado outbreak of April 27-28, 2011. At 2200 UTC April 27, 2011, the Storm Monitor highlighted large values of shear and helicity (Fig. 1) across the area. The Significant Tornado Parameter (STP) column heading is highlighted and values in the column are sorted from highest to lowest. Notice CHA, the Chattanooga Metropolitan Airport location, is well above the threshold for tornado occurrence (threshold is  $\geq 1$  for tornadoes,  $\geq 2$  for strong tornadoes). An EF-1 occurred at 2215 UTC April 27, 2011 and an EF-4 occurred at 0027 UTC April 28, 2011 near CHA.

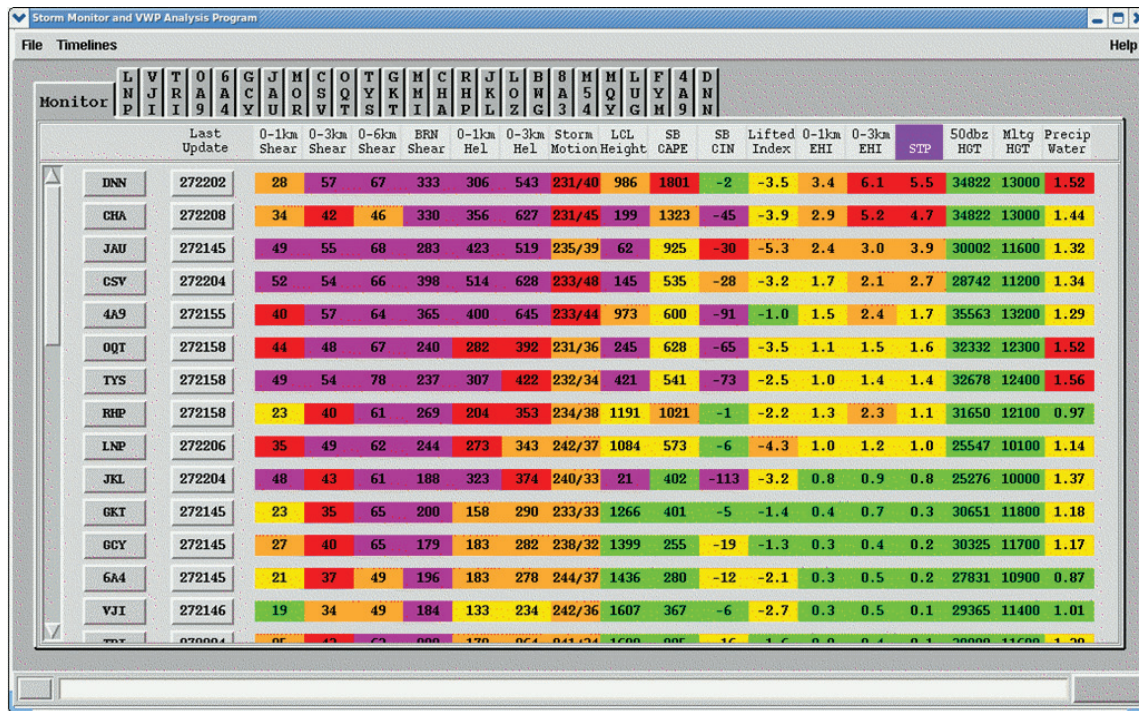


Figure 1: Storm monitor at 2200 UTC April 27, 2011. The STP column heading is highlighted in purple and values in that column are sorted from highest to lowest. Green indicates values in the columns not normally associated with tornado occurrence, warm colors show increasing association with tornado occurrence from yellow to purple.

See STORM page 5

STORM from page 4

The software allows the user to view time-line graphs of each parameter, such as the plot of the STP during the tornado outbreak (Fig. 2). The tornadoes across the Chattanooga, Tenn., area have been annotated on the graph. There is a spike in the STP during or just before each tornado touchdown.

Forecasters will have the ability to view the hodograph for each observation site. The hodographs are interactive and can be manipulated to change storm motion and wind input. Figure 3 shows the hodograph at CHA using the RAP analysis and surface observations at 0000 UTC April 28, 2011.

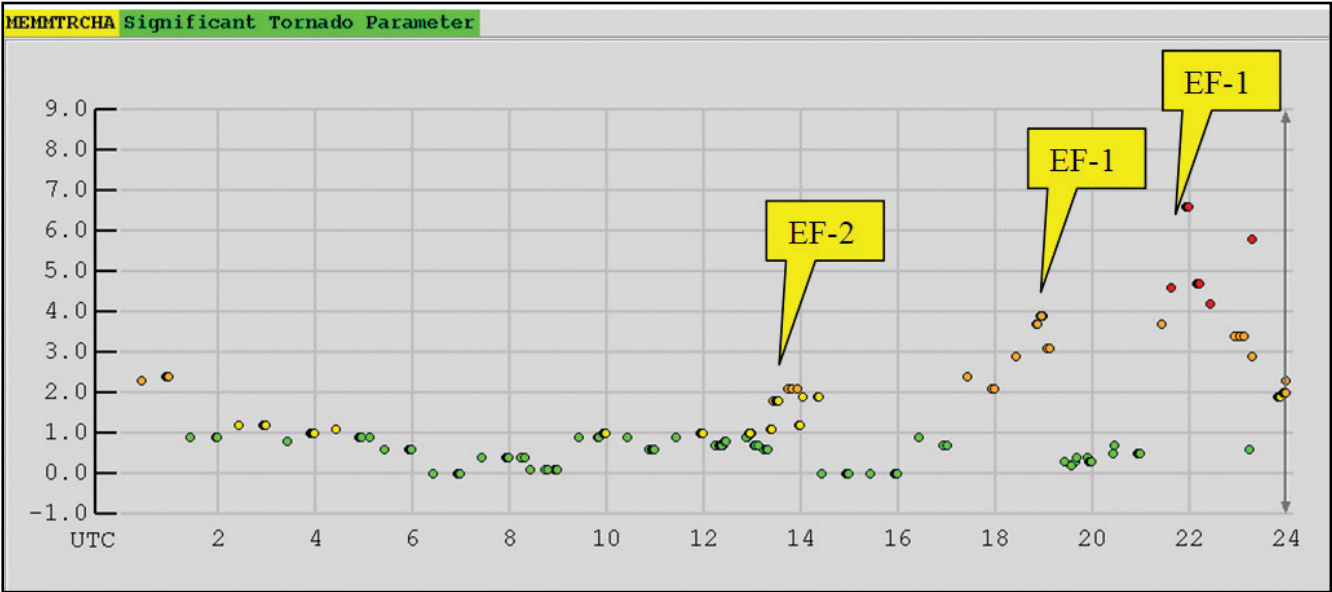


Figure 2: Time line graph of the STP at CHA from 0000 to 2359 UTC April 27, 2011.  
The tornadoes occurred near CHA.

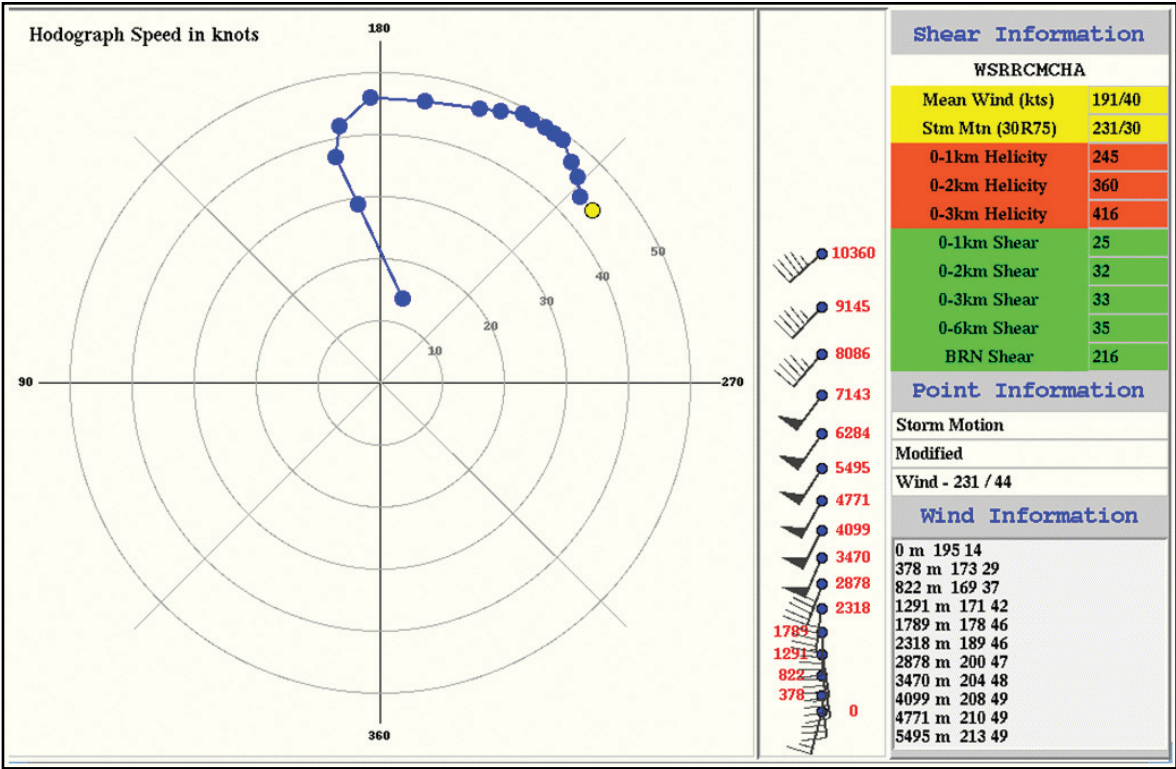


Figure 3: Hodograph at CHA using RAP wind speed analysis in knots (blue dots) and computed storm motion (yellow dot) at 0000 UTC April 28, 2011. The heights display in red are in meters.  
The shear information column at top right is color-coded for quick identification. Wind and storm motion information is yellow, helicity values are red, and shear values are green.  
The shear information will automatically change if the wind speed and/or storm motion are modified.



## 37th NWA Annual Meeting Broadcaster Workshop: Another Success

Mike Goldberg

Freelance Meteorologist, WRIC-TV Richmond, Va.

NWA Broadcast Meteorology Workshop Chair

The 2012 NWA Broadcaster Workshop was a great success. With over 100 broadcasters in attendance, the morning began with a welcome to the city of Madison by Brian Olson (WKOW-TV). Entertaining presentations about gesturing on the air (Jay Trobec, KELO-TV) and choosing your words (Alan Sealls, WKRG-TV) followed. Josh Johnson (WSFA-TV) finished the early morning session with a talk about preparing a more informed community in the event of severe weather.

After the morning break, Greg Carbin from the Storm Prediction Center led a very successful severe weather workshop straight from his office in Norman, Okla. Participants were split into groups and maps and information to be analyzed were provided. Each group was then asked to survey the situation and issue a severe thunderstorm or tornado watch. The actual scenario that occurred was unveiled, and it was determined that our participants showed quite a bit of skill. Greg completed the session with his annual "Review of Significant Weather Events" that occurred so far this year.

After lunch, Ed Maibach from George Mason University provided an update on his broadcaster climate change education project. Bruce Jones from Midland Radio Corporation gave a talk titled "NOAA Weather Radio in the Digital Age." Kevin Laws from NOAA followed with a remote presentation on NEXRAD data dealiasing problems, which led us into a series of discussions on NEXRAD dual-polarization led by representatives from Baron Services, Weather Central and WSI.

After a short break, the workshop wrapped up with a 90-minute interactive session on social media tools, led by Renee Willet (The Weather Channel), Tiffany Sunday (NWA Social Media Committee) and Tim Brice (NOAA). Many attendees also returned during the evening for the annual DVD swap, led by Nick Walker (The Weather Channel) and Miles Muzio (KBAK-TV). Several of our seasoned broadcasters coached talented students looking for constructive feedback during the student DVD critique session. All in all, the group had a lot of fun in Madison and are all looking forward to next year in Charleston.



*Team #1 issues a Tornado Watch*



*Severe Weather Workshop with Greg Carbin*

**Mark Your Calendars for  
October 12 - 17, 2013**

The 38th NWA Annual Meeting will be in  
Charleston, S.C.

*Details coming your way soon!*

## Do You Participate in NWA Locally?

NWA members are all encouraged to get involved in their local chapters. A list of active ones is at: <http://www.nwas.org/local.php>

If you aren't close to one geographically, please consider organizing one! Contact the NWA office for procedures or start the process by sending the NWA office a Request for Local Chapter Status.

### 2013 NWA sponsored Annual Meetings, Conferences and Special Events

#### March 2: 2013 National Storm Conference

Sponsored by the Texas Severe Storms Association (TESSA), it will be at the Coleyville Center in Coleyville, Texas. The National Storm Conference It is free and open to the public. Registration is not required; however, arrive early, seating is limited. <http://www.tessa.org>

#### March 8-10: The 38th Annual Northeastern Storm Conference

Sponsored by the Lyndon State College AMS/NWA local chapter, it will be in Rutland, Vt. <https://sites.google.com/site/lyndonstateamsnwa/>

#### April 4-6, 2013: The 17th Annual Severe Storms and Doppler Radar Conference

Sponsored by the Central Iowa NWA Chapter, it will be in Ankeny, Iowa. <http://www.iowa-nwa.com/>

#### October 12-17: The 38th NWA Annual Meeting

It will be held in Charleston, S.C. at the North Charleston South Carolina Convention Center with the Embassy Suites for meetings. Details are forthcoming; the Call for Abstracts is expected in late January 2013.

### Other Meetings, Conferences and Special Events

#### January 6-10: 93rd American Meteorological Society Annual Meeting

Meeting will be held in Austin, Texas.

<http://annual.ametsoc.org/2013/?CFID=12137&CFTOKEN=14711286>

#### March 12-13: The 2013 Alaska Weather Symposium (AWS '13)

It will be on the University of Alaska Fairbanks campus. Abstracts are due Jan. 23.

<http://weather.arsc.edu/Events/AWS13/>

#### March 25-28: The National Hurricane Conference

It will be held at the Hilton New Orleans Riverside in New Orleans, La.

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

#### April 8-12: NOAA Satellite Conference for Direct Readout, GOES/POES, and GOES-R/JPSS Users

This conference will be held in Miami, Fla. <http://satelliteconferences.noaa.gov/Miami2013>

#### April 17-24: The National Tropical Weather Conference

For Broadcast Meteorologists, it will be on Padre Island, Texas. The conference theme is "Tropical Systems: Preparing for the Storm". Attendees will have the opportunity to enhance their knowledge of tropical systems with educational sessions on tropical forecasting, using social media, flying with the hurricane hunters and more. Additionally, the conference will include all former directors of the National Hurricane Center.

<http://www.hurricanecenterlive.com> or Facebook page <https://www.facebook.com/NationalTropicalWxConference>

## Vote Now for 2013 NWA Officers and Councilors

Online voting for 2013 NWA Officers and Councilors is available for all NWA members. Log in to the member's portal ([member.nwas.org](http://member.nwas.org)) and click on the "Vote Here!" button. For those who prefer paper ballots, they will be arriving shortly.

Biographical sketches of the candidates are at: <http://nwas.org/bios/2013>. In this election, members will be selecting the President-Elect for 2014, Vice-President, Treasurer, and four councilor positions.

One promise from the NWA...there will be no political ads!!



## Renew Your Membership Online Now!

For the large number of members whose membership year ends in December, renewal notices are on the way. However you may renew online quickly and with no stamp needed!

Don't miss any of your benefits by letting your membership lapse!

An easy link is at:

<http://nwas.org/membership/>

## IMPORTANT DATES

Jan. 6-10, 2013: 93rd American Meteorological Society Annual Meeting, Austin, Texas

March 2: 2013 National Storm Conference, Coleyville, Texas

March 8-10: 38th Northeastern Storm Conference, Rutland, Vt.

April 4-6: 17th Annual Severe Storms and Doppler Radar Conference, Ankeny, Iowa

Oct. 12-17: 38th NWA Annual Meeting, Charleston, S.C.

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Members receive the Newsletter and *National Weather Digest* as part of their regular, student or corporate membership privileges. Printed Newsletter subscriptions are available for \$25 per year plus extra shipping costs outside U.S. Single copies are \$3. Address, phone number, email and affiliation changes can now be made online: [member.nwas.org](http://member.nwas.org).

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