



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

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Newsletter OCTOBER

2013

The Future of Our Association

Now with our NWA 38th Annual Meeting in Charleston, S.C., behind us, and the 17-day “Government Shutdown” resolved for now, let’s talk about the big topics that are ahead for the NWA in the coming months. Our new Executive Director, Janice Bunting, was officially introduced and our retiring (Spring 2014) Raleigh, N.C., staff Steve Harned, Ruth Aiken and Margaret Baron were properly thanked with much gratitude and standing ovations in Charleston. The transition to our new NWA Headquarters in Norman, Okla., is moving full-steam ahead.

During the month of November, ballots for new officers will be mailed and many membership renewals will be processed. Please be sure to vote for our new Councilors and Executive Committee members as these are the volunteers within our organization that help facilitate change and keep the high standards put in place by our past NWA leaders.

There is a new and exciting level of membership that will be available to individual NWA members called the Lifetime Membership. It will allow for a onetime payment of dues with no age restrictions. This new membership category was developed over a two-year period after requests by many of our members wanting to make a strong statement of their commitment and involvement in the organization and take away the burden of yearly dues payments.

The cost of a Lifetime Membership will be \$1,250. This can be given as a gift to a graduating student or a loved one, or something that members may purchase for themselves. These funds will be invested and used as a permanent income fund to cover the member’s dues for their lifetime. The ability to choose the Lifetime Membership option will be available in early November in time for 2014 dues renewal. Please consider this new Lifetime Membership when you renew your membership.

Bruce Thomas, NWA President

100th Anniversary of the World’s Hottest Air Temperature

Chris Stachelski

National Weather Service, Las Vegas, Nev.

On the evening of July 10, 1913, Oscar Denton, an employee for the Pacific Borax Company, walked out to a thermometer housed in a white-painted wooden instrument shelter at the Greenland Ranch in Death Valley, Calif., and recorded a high temperature of 134 F. Nine years later on September 13, 1922, a new record of 136 F was set in El Azizia, Libya. In September 2012, the World Meteorological Organization struck down that record and recertified the 134 F reading Oscar took as the world’s hottest air temperature ever recorded at an official weather station. After 90 years, this brought the world’s hottest official air temperature record back to Death Valley National Park.



When I first went to Death Valley National Park in October 2007, the first thing I wanted to see was not the lowest point in North America – Badwater Basin located in the park – but the weather station. Since July 10, 1913, Death Valley has retained the title of having recorded the highest temperature ever in the United States and in the Western Hemisphere. Visiting the weather station at Death Valley certainly fits on many weather fanatics bucket lists and, as someone with a strong interest in climate and historical weather records, it certainly ranked high on mine.

In February 2012, at a meeting with rangers at Death Valley National Park, one of the rangers, Terry Baldino, mentioned that Death Valley was starting to get questions about plans to celebrate the 100th anniversary of the 134 F high temperature. This was well before anyone at our office knew that the long standing 136 F high temperature recorded

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Three Rivers NWA Chapter News

July - September 2013

California University of Pennsylvania (CalU)

John Troutman, Secretary

OFFICERS:

The Three Rivers Chapter of the NWA elected new officers at the end of the Spring 2013 semester. Elizabeth Smith was elected as President, Thomas Hafer as Vice-President, John Troutman as Secretary, Damon Matson as Treasurer, Jamie Melzer as Historian, and Ryan Lingo as Social Media Coordinator.

STORM CHASE:

Five students, two alumni and Professor Swarn Gill participated in the annual Storm Chase. This is a two-week organized trip through the Great Plains where students are able to study severe weather phenomena and demonstrate their real-time forecasting and observation skills. This year, the field course occurred during May 28–June 7. The group covered roughly 4,200 miles through 10 states over the 11-day trip. The participants actively chased three days in Oklahoma and saw multiple shelf and wall clouds and a funnel cloud. They did not see a tornado, but were 10–20 minutes north of the El Reno, Okla., tornado.

INTERNSHIPS/RESEARCH:

Our chapter prides itself on the work ethic and academic drive our members have. Six of our student members were selected for various summer internships. Three of the six students completed research projects in accordance with their internship.

As a National Oceanic and Atmospheric Administration Hollings Intern, Elizabeth Smith worked as a research intern at the NWS WFO in Cheyenne, Wyo. During her time in Cheyenne, Elizabeth took part in the same activities a normal NWS volunteer would, such as forecasting, visiting instrument sites, and completing Warning Event Simulations. She also completed a research project titled “Investigating the Impact of Two-Inch Soil Temperatures on Snowfall” and will present the results at the NWA 38th Annual Meeting in Charleston, S.C., and the 2013 Annual Meeting of the Pennsylvania Geographical Society (PGS) in Pittsburgh, Pa.

Brittany Kusniar and Jamie Melzer were selected as student volunteers for the NWS Pittsburgh office this past summer. Brittany and Jamie completed many training modules, became familiar with the Advanced Weather Interactive Processing System (AWIPS) workstation, processed climate data, launched the weather balloon, and sat in on briefings. They were also able to go on a storm survey in Ohio after a severe weather event. In addition to their volunteer work, Brittany completed a research project titled “Common Meteorological Features of Mid-Atlantic and Ohio Valley Synoptic High Wind Events” and Jamie

completed a research project titled “Enhancing Flash Flood Warnings in Flood-Prone Areas of the Pittsburgh CWA.” Both presented posters at the NWA and PGS annual meetings.

Thomas Hafer interned for the West Texas Weather Modification Association in San Angelo, Texas, where a CalU alumni is currently employed. His job consisted of daily forecasts for the Trans Pecos region of Texas. During strong rainfall events, he ran the cloud seeding operations maintaining radio contact with at least one pilot. After the operations were over he would write a report for display on the website. On a few days he was given the opportunity to fly with one of the pilots during seeding operations.

This past summer Matthew Hladio was a weather intern for the CBS affiliate KDKA-TV in Pittsburgh, Pa., working under the supervision of meteorologist Dennis Bowman. Matthew’s main job was to assist Mr. Bowman with creating a forecast and graphics for the show. In the morning he would have to create the forecast for different locations in the viewing area and the forecast for different hours of the day for Pittsburgh. Toward the end of his internship, Matthew practiced presenting forecasts in front of the camera using the green screen and obtained a DVD of his recordings to use for resume tapes.

Matthew Riddle interned for the CBS affiliate WTAJ-TV in Altoona, Pa. Here he forecasted every week for the central Pennsylvania region, which includes cities like Altoona, Johnstown, and State College. He wrote weather discussions, make graphics, and update show graphics. He also practiced green screen work and put together a climatological database for Altoona, with data from 1926 to the present.

FUNDRAISING:

Our chapter’s budget for the year was drastically cut, making fundraising critical. Members have been brainstorming on fundraising ideas to benefit the club, including candy, tee shirts, bumper stickers, and Yankee Candles sales, a snowfall forecasting competition, and a community fun night. Members have been using a table in the Natali Student Union to sell candy and club memorabilia. We are also planning a community fun night at a local restaurant and a table for CalU’s Homecoming where we will sell hot chocolate, soda, and homemade baked goods.

WORKSHOPS/CONFERENCES:

Ten student members of the chapter were selected to attend this year’s 38th Annual NWA Meeting in Charleston, S.C., from October 12–17. Students were required to submit

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High Plains AMS/NWA Chapter News

Bill Taylor, President

Tim Burke, Secretary

The High Plains Chapter of the American Meteorological Society/NWA (www.highplains-amsnwa.org/) held a teleconference on Wednesday, September 25, at 3 p.m. There were 29 members on the call from the four NWS offices represented.

The meeting started with a presentation from Corey King, a former chapter member, who has been at the Bismarck, N.D., NWS office (BIS) for 1.5 years. Corey's presentation was titled "Infusion of an Emergency Response Specialist (ERS) into NWS Bismarck Operations". Corey outlined the process of working his new ERS position into operations at BIS. In this position, he works closely with the office Warning Coordination Meteorologist and the Meteorologist in Charge. Some of Corey's new duties at BIS include managing multimedia briefings and being the point of contact (POC) for social media and state offices. He can be deployed to other offices by Central Region Headquarters (CRH), and is an assistant to the CRH Regional Operations Center POC. One example Corey gave of ERS

assistance was during the 2013 flooding in North Dakota. There was a lot of coordination between the local NWS office, state offices, and even national groups. One item that came from this flooding support was the Experimental Weather Threat Matrix (EWTM), similar to the new Enhanced Hazardous Weather graphic product. The EWTM was developed from a North Dakota National Guard briefing product, created every day during the two months of flooding. The presentation ended at 3:55 p.m.

A short business meeting began at 4 p.m. The Treasurer's report was submitted, showing that we paid multiple dues, but only wrote one check since our last meeting. Vice President Jeremy Wesely is looking for speakers for future meetings. The chapter will probably have one more meeting this year, possibly a face-to-face meeting. Furthermore, depending on the budget, a High Plains Conference may be possible next year. Mike Umscheid updated us on the tax exempt application with the IRS. He is still working on getting this issue finalized.

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RIVERS from page 2



The 2013 summer Three Rivers Storm Chase participants: (l-r) Karly Meszaros, Elizabeth Smith, Thomas Hafer, Ryan Kaufman, John Troutman, Ronald Bucok, Professor Swarn Gill, and Emanuel Janisch

a cover letter and resume to the chapter advisor and also to dress professionally at a club meeting in order to be eligible for selection. We have three student members who sent posters to the conference. Elizabeth Smith and Jamie Melzer presented their posters in the Student Poster Session. These posters summarize the research projects they completed at their internships this past summer. Brittany Kusniar's poster was also in the Student Poster Session.

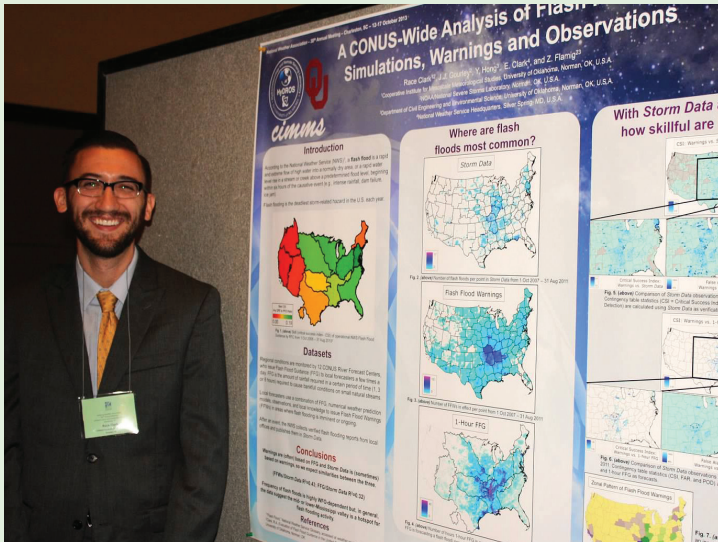
Twenty-three students attended the Pennsylvania Geographical Society Conference in Pittsburgh, Pa., October 25–26. CalU is hosting this event and bringing in two professionals, Alan Stewart and Grady Dixon, to speak at the conference about climate. Five chapter members will be presenting their research: Elizabeth Smith, Jamie Melzer, Brittany Kusniar, John Troutman, and Damon Matson.

Best Student Presentations at the Annual Meeting

In 2005, the NWA Weather Analysis and Forecasting (WAF) Committee initiated this addition to the NWA Awards Program. At each Annual Meeting, undergraduate and graduate students make known their wishes to be in competition for these awards when they submit their abstracts. Members of the WAF Committee review each presentation and recommend their choices of the best to the NWA President for approval. Award recipients receive a congratulatory letter from the NWA President, a cash stipend and a complimentary NWA membership for the following year.

Christina Crowe, chair of the NWA WAF Committee, announced the winners of the best student presentations for the 2013 NWA 38th Annual Meeting in Charleston, S.C.

Poster Winners – Graduate Division



1st Place (\$125 and 2014 NWA Dues):

Robert "Race" Clark

University of Oklahoma-CIMMS and NOAA/OAR/NSL,
Norman, Okla.

Poster title: *A CONUS-wide analysis of flash flooding: simulations, warnings, and observations*

With J. J. Gourley, NOAA/Oceanic and Atmospheric Research (OAR)/National Severe Storms Laboratory (NSSL), Norman, Okla., Yang Hong and Zac Flamig, University of Oklahoma-Cooperative Institute for Mesoscale Meteorological Studies (CIMMS) and NOAA/OAR/NSSL, Norman, Okla., and Ed Clark, NOAA/NWS

3rd Place (2014 NWA Dues):

Joshua Kastman (pictured right) and Laurel McCoy,

University of Missouri-Columbia, Columbia, Mo.

Poster title: *Case Review July 11, 2006; Springfield MO County Warning Area: Elevated convection resulting in heavy rainfall and flash flooding due to upper and lower-level jet coupling*

With Dr. Patrick Market (NWA Past President '11),
Department of Soil, Environmental, and Atmospheric
Sciences, University of Missouri-Columbia, Columbia, Mo.

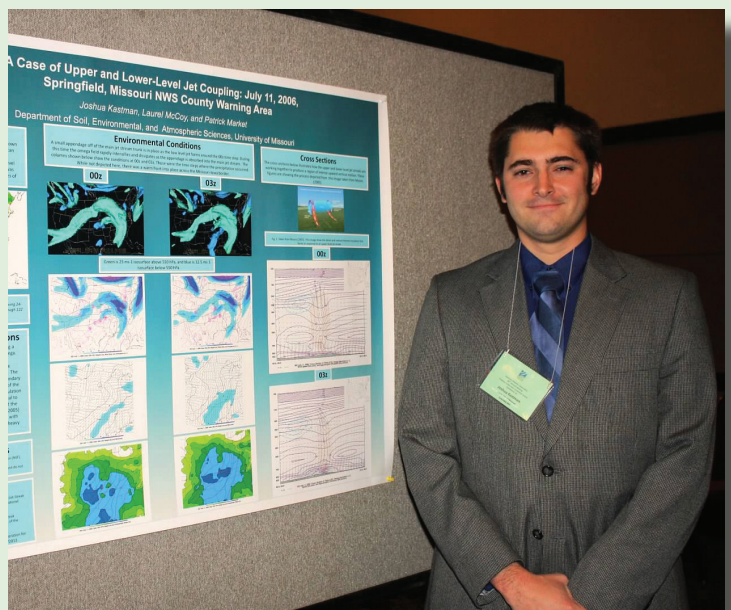


2nd Place (\$75 and 2014 NWA Dues):

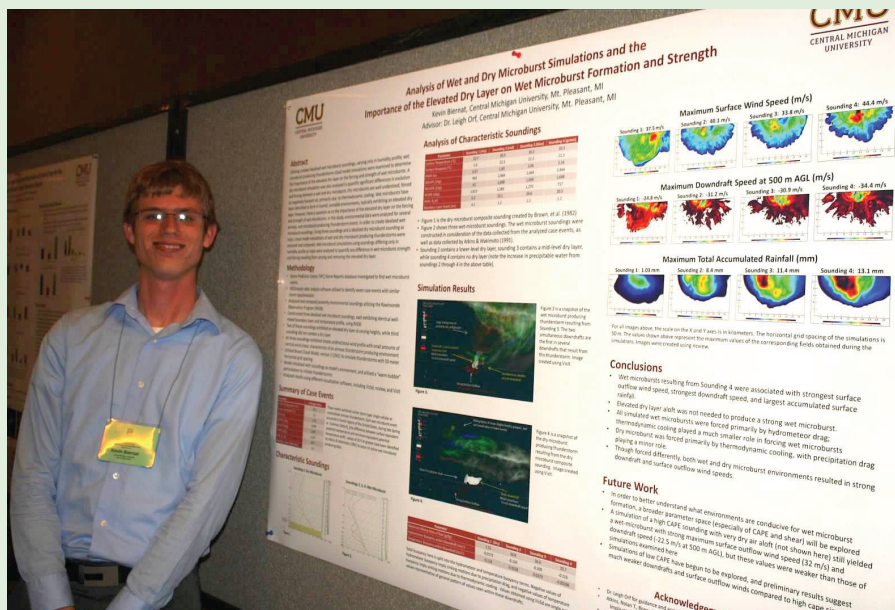
Jen Henderson

Virginia Tech, Blacksburg, Va.

Poster title: *A Calculated Risk: One Storm Chase Group's Experience with the El Reno and OKC Tornadoes*



Poster Winners – Undergraduate Division



1st Place (\$125 and 2014 NWA Dues):

Kevin Biernat

Central Michigan University,
Mount Pleasant, MI

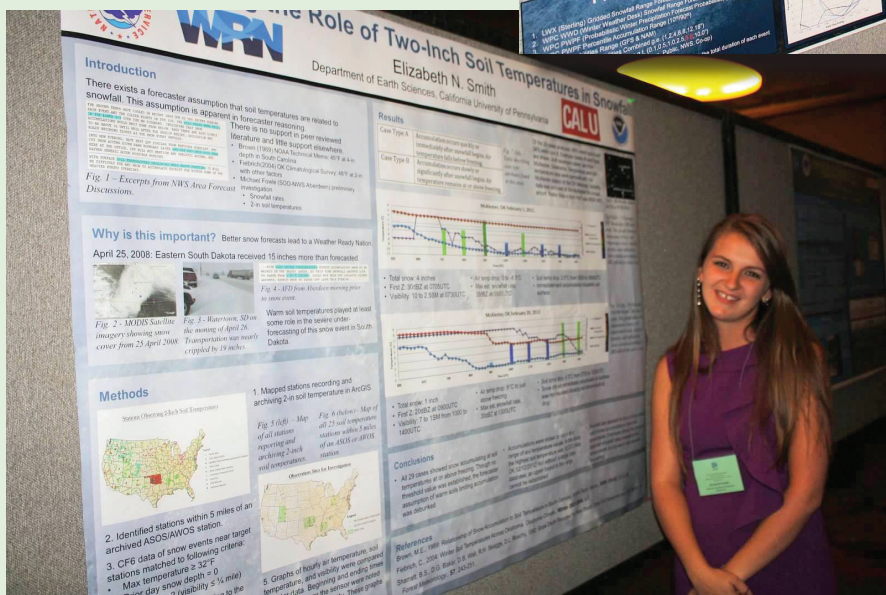
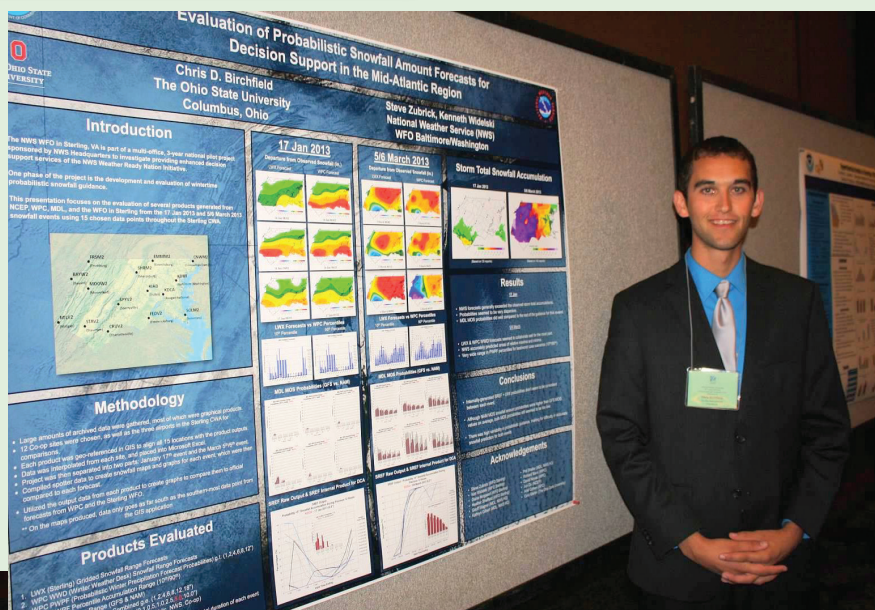
Poster title: *Analysis of Wet and Dry Microburst Simulations and the Importance of the Elevated Dry Layer on Wet Microburst Formation and Strength*
With Dr. Leigh Orf, Central Michigan University, Mount Pleasant, Mich.

2nd Place (\$75 and 2014 NWA Dues):

Chris Birchfield

The Ohio State University,
Columbus, Ohio

Poster title: *Analysis of winter probabilistic snowfall amount forecasts for use in decision support for users in the Mid-Atlantic Region*
With Steven Zubrick and Kenneth Widelski, NOAA/NWS Sterling, Va.



3rd Place (2014 NWA Dues):

Elizabeth Smith

California University of Pennsylvania,
California, Pa.

Poster title: *Investigating the Role of Two-Inch Soil Temperatures in Snowfall*
With Rob Cox, NOAA/NWS Cheyenne, Wyo.

Awards continued on page 7

POSTER AWARDS

ANNIVERSARY from page 1

in El Azizia was being investigated for its accuracy. I kept this thought in my mind, and following the official announcement of the world record being moved back to Death Valley that September, I figured there were many others who were also intrigued by the climate of an extreme place and would be interested in such an event.

Last fall, I started working with our management team at the NWS Office in Las Vegas to set up initial meetings with the Death Valley staff to discuss planning a centennial celebration for the 134 F high temperature. In February, our office held an initial meeting with the staff at Death Valley National Park to figure out logistics for holding this event. With much planning and teamwork across agencies, the celebration was planned. Despite budget challenges, the National Park Service was able to secure funding to invite Christopher Burt, who oversaw the investigation of the 136 F high temperature recorded in El Azizia, and Dr. Randall Cervený, a professor at Arizona State University and member of the World Meteorological Society's extremes committee, to speak at the event. Our office worked to provide visuals for displays, create a website, and provide content on the history of the Death Valley weather station and the reasoning behind the 134 F high,



Witnesses to the high temperature - 120 F- at the official weather station in Death Valley 100 years after the highest temp record.

and what makes Death Valley such a hot place. The National Park Service provided their expertise on many things, including creating displays, arranging facilities for the event, and giving out information on what it is like to live, work and visit such a hot place.

The result was an entire day dedicated to weather in Death Valley held 100 years to the day after the 134 F high was recorded – July 10, 2013. Although the high temperature only reached 120 F that day, it did not stop nearly 100 people from attending a nearly four-hour session of

talks. Close to 90 percent came just for this event with attendees traveling from as far as the eastern United States and Europe. Over 50 people ventured outside to watch the National Park Service take a weather reading that afternoon at 4 p.m. from the official weather station at the Furnace Creek Visitor's Center. In addition, the Death Valley Natural History Association sold event memorabilia items at their gift store at Furnace Creek. The heat wave of late June 2013 likely bolstered interest in this event. While Death Valley still has yet to get any hotter than 129 F since July 1913, everyone enjoyed themselves at this event. In addition, this provided a successful working relationship among two federal government agencies, academia and the private weather sector. We would like to thank all those who attended and participated.

New NWA Members in September 2013

Regular/Military/Retired

Gregory Armbrrecht

Robert Branham

Kristian Claus

John Cortinas

David Decker

Scott Dimmich

Mark Gabrick

Kimberly Garrett

Sean Luchs

Mark Malsick

Sam Ryan

Samantha Smith

Lee Solomon

Greg Trumbold

Nathan White

Jeffrey Wilhelm

Students

Tawana Andrew

Anthony Bain

Mackenzie Bart

Britney Blanchard

Candice Boling

Matt Bolton

Andrew Briscoe

Bryan Burlingame

Henry Cantrell

Alexandra Caruthers

Tyler Case

Margaret Christopher

Shelby Clark

Katlin Crooks

Connor Dacey

Peter DellaGrotta

Greg Diamond

Dianna Dollar

Lauren Duggan

Chad Dumas

Justin Dumas

Kimberly Duong

Meredyth Ellington

Corey Elder

Alex Elmore

Sean Everson

Rebecca Evrard

Cameron Garrand

Andrew Groves

Nigel Haarstad

Kelton Halbert

Lauren Rae Hilko

Justin Hilliard

Jensen Hufnagel

Gregory Jennrich

Robyn King

Brian Koch

Samantha Kvartunas

Michael Lee

Katherine Lenninger

Brendan Linton

Hope-Anne Longwith

Holly Beth Lussenden

Nicole Madden

Kandace McDaniel

Samone Mitchell

Laura Myers

Nikki Perrini

William Reed Jr.

Hannah Sankey

Matthew Schaefer

Zoe Marie Schroder

Jamie Sue Schwiderson

Tyler Seabee

Elliot Shiben

Michael Simpson

Megan Sirbaugh

Tracy Smith

Nathan Smith

Sierra Blake Sult

Rachelle Thomason

Giancarlo Thompson

Robert Thoroughman

Atiba Upchurch

Lance VandenBoogart

Lauren Visin

Jodi Wallace

Zachary Lon Weiner

Mark Young

Chris Zarzar

Dan Zbozien

Oral Presentations

(\$75 and 2014 NWA Dues)

Graduate Student Division

Benjamin Herzog (left)

Univ. of Oklahoma/CIMMS, Norman, Okla.

Presentation title: *Total Lightning Information in a 5-Year Thunderstorm Climatology*

With Kristin M Calhoun, OU/CIMSS and NOAA/OAR/NSSL, Norman, Okla., and Donald R. MacGorman, NOAA/NSSL, Norman, Okla.

Undergraduate Division

Devin Boyer (right)

Penn State University,
University Park, Pa.

Presentation title: *Tested with Fire: Successes and Challenges of a Student-Run Forecasting Operation*



More awards on page 4-5

2014 NWA sponsored Annual Meetings, Conferences and Special Events

February 8: The 2014 National Storm Conference

A full day of presentations from some of the top severe weather experts in the country. Storm spotters, chasers, forecasters, researchers, emergency managers and others gather at the conference for a day of learning and fun. It's free and open to the public, so come and join us for the biggest event in Tornado Alley! <http://www.tessa.org/meeting.html>

February 10-11: National Tornado Summit & 2014 National Severe Weather Workshop

Breakout sessions will be conducted during the 2014 National Tornado Summit in Oklahoma City. Sessions will focus on hazardous weather information-sharing, and discussions on the effective transmission of messages about meteorological risk. <http://www.tornadosummit.org/> and <http://www.norman.noaa.gov/nsww/>

March 7-9: 39th Annual Northeastern Storm Conference

The Lyndon State College Chapter of the AMS and NWA will sponsor this annual conference at the Holiday Inn in Rutland, Vt. <https://sites.google.com/site/lyndonstateamsnwa/north-eastern-storm-conference>

March 27-29: 18th Annual Severe Storms and Doppler Radar Conference

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

October 18-23: 39th NWA Annual Meeting

It will be in Salt Lake City, Utah, at the downtown Sheraton Hotel (#nwas14). <http://nwas.org/meetings/>

Other Meetings, Conferences and Special Events in 2013

December 10-11: Northeast Regional Operational Workshop (NROW) XIV
Co-sponsored by the NWS in Albany and the Department of Atmospheric and Environmental Sciences, University at Albany, it will be at NWS Weather Forecast Office, Albany, N.Y. <http://www.weather.gov/aly/NROW14>

February 2-6: 94th AMS Annual Meeting

The meeting will be held in Atlanta, Ga. and the theme is "Extreme Weather—Climate and the Built Environment: New Perspectives Opportunities, and Tools." <http://annual.ametsoc.org/2014/>

November 3-7: 27th Conference on Severe Local Storms

The conference will be at the Madison Concourse Hotel in Madison, Wis. The formal call for papers will be posted on the AMS website soon.

Newsletter Submissions

We welcome Newsletter article submissions from members. Send articles to nwanewsletter@nwas.org by the 25th of the month for publication in the following month's edition at the earliest. Visit www.nwas.org/newsletters/ for details including author guidelines.

New NWA JOM Articles Posted

Since our last update, eight papers (JOM 10-17) have been published the NWA's Journal of Operational Meteorology (JOM). You can read them by logging on to the NWA Member Portal at member.nwas.org/ and clicking on JOM link under Additional Member Resources on the right. If you are interesting in submitting a paper to JOM, go to www.nwas.org/jom/index.php for author information.

JOM 10: *Characteristics of Major Ice Storms in the Central United States*, by Sanders et al.

JOM 14: *Multivariate Analysis of Lake-Effect Snowstorms in Western New York*, by Pereira et al.

JOM 11: *Error Estimation of Objective Analysis of Surface Observations*, by Glahn et al.

JOM 15: *Spatial and Temporal Resolution Considerations in Evaluating and Utilizing Radar Quantitative Precipitation Estimates*, by Miller et al.

JOM 12: *Operational Recognition of High Precipitation Efficiency and Low-Echo-Entropy Convection*, by Vitale et al.

JOM 16: *Analyzing Predictability and Communicating Uncertainty: Lessons from the Post-Groundhog Day 2009 Storm and the March 2009 "Megastorm"*, by Stuart et al.

JOM 13: *Multi-Sensor Examination of Hail Damage Swaths for Near Real-Time Applications and Assessment*, by Molthan et al.

JOM 17: *A Forecast Procedure for Dry Thunderstorms*, by Nauslar et al.

IMPORTANT DATES

Dec. 31: Voting for NWA Officers and Councilors closes at midnight.
member.nwas.org

Feb. 2–6: 94th AMS Annual Meeting in Atlanta, Ga.

Feb. 8: The 2014 Texas Severe Storms Association (TESSA) National Storm Conference in Arlington, Texas

Feb. 10-11: National Tornado Summit & 2014 National Severe Weather Workshop in Oklahoma City, Okla.

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Submit newsletter items to nwanewsletter@nwas.org using the Instruction for Authors at 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.

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