Introducing the Journal of Operational Meteorology

Matt Bunkers
Publications Committee Chair
NWS Rapid City, S.D., Science and Operations Officer

The NWA leadership has approved the Publications Committee proposal to merge the NWA Digest and EJOM into an all-electronic journal called the Journal of Operational Meteorology (JOM). This decision was vetted through the Publications Committee, the Digest and EJOM Editors, the NWA Council, external input from libraries, and a survey of the paper subscribers to the Digest. Although not everyone was in favor of this move, a large majority of members believe it is a wise decision in terms of cost effectiveness, efficiency and the environment.

The new JOM officially begins January 1, 2013, but the NWA website already has been updated with critical information, including the Call for Papers, Author Guidelines, Reviewer Guidelines, and manuscript templates (http://www.nwas.org/jom/). There are four categories of submission for the JOM: Articles, Short Contributions, Images of Note, and Commentaries. The Articles and Short Contributions are of similar length as have been the Digest and EJOM articles, respectively. The Images of Note are the same as before, and the Commentaries are a new addition that allows authors to discuss recently published JOM papers.

The Journal Charter specifies the categories that are appropriate for the JOM:

Published by the National Weather Association, the Journal of Operational Meteorology covers topics relevant to all aspects of operational meteorology on a range of time and space scales. Suitable topics include new or improved forecasting and warning techniques, verification studies, applications of observations and models to improve forecasts and warnings, and case studies of major weather events. Climatological studies, interdisciplinary studies, and studies documenting education and training practices are also of interest.

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New NWA Web page for the JOM
Madison, Wis., Hosts 37th NWA Annual Meeting
Brings Membership Together

This year’s 37th NWA Annual Meeting was another success. We welcomed approximately 425 attendees to this year’s meeting in Madison, Wis., the birthplace of satellite meteorology and home to the University of Wisconsin. The theme was “Synthesizing Weather Information for Society: From Observations to Action across our Communities”. The meeting was held in the iconic Monona Terrace, with an overlook of Lake Monona. Though not all of our oral presenters could join us, the program committee and session chairs did an amazing job of accommodating remote presenters and last-minute changes to the schedule.

There are many beginnings to an annual NWA conference. To some it’s the vendor booth opening, or the start of the student or broadcaster sessions; while to others it’s the keynote address on Monday morning (or the first time they are asked to buy a raffle ticket). For others the heart of the NWA conference is the poster session. This year there were two poster sessions, in addition to the one associated with the student session, with over 100 posters. While many poster presenters from NWS were unable to attend, the poster session offered a chance for one-on-one exchanges on a host of topics with a broad range of meteorologists and meteorology students. New this year was one-page poster introductions just before the beginning of each session. This allowed all to get a glimpse of the scope of topics offered within each poster session, and allowed attendees to easily find those posters that best caught their attention.

The keynote speakers for this year’s meeting brought many talents from all facets of the meteorological enterprise. We had the great pleasure of jumpstarting the general sessions with Tom Skilling (WGN-TV in Chicago, Ill.), who spoke about the evolution of meteorology over the past 45 years of his career. Also early in the meeting, University of Wisconsin alumnus Dr. Louis Uccellini (Director of the NWS National Centers for Environmental Prediction and President of the American Meteorological Society) addressed the attendees about the current state and future of environmental prediction. Additionally, we were very happy to host Dr. Kathryn Sullivan (Assistant Secretary of Commerce for Environmental Observation and Prediction, Deputy Administrator of NOAA, and Acting Chief Scientist) and Laura Furgione (NOAA Acting Assistant Administrator for Weather Services and Acting Director of the National Weather Service), who talked about their vision for a Weather-Ready Nation and how the NWS has progressed in this endeavor over the past year. Last, but certainly not least, Jon Davis (Chesapeake Energy, Chicago, Ill.) spoke about the all-too-important link between meteorology and the energy and agriculture ventures.

One of the new and highly praised events to take place as part of this year’s meeting was the women’s luncheon on Tuesday. Approximately 60 women participated in small roundtable discussions over lunch. Each table had a mixture of women at different stages in their careers. Conversations about balancing work and family life, stories of the unexpected places careers have gone, and laughter about common experiences in a male-dominated profession rang through the
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Hilton. Women from all branches of meteorology and levels of experience got a chance to discuss women’s career-oriented issues while enhancing a support network. Great connections were made, evinced by business cards passed around and new acquaintances continuing their conversations all the way back to the convention center. Our overwhelmingly positive response will hopefully keep the lunch on the conference schedule for years to come.

The Weather-Ready Nation (WRN) session on Tuesday afternoon concluded with a Town Hall Meeting titled “Decision Maker’s Perspective – Assessing Weather Impacts.” This provided an opportunity for the Weather Enterprise to hear first-hand from various users of weather information. There were nine panelists representing a spectrum of organizations, and each had an opportunity to respond to a given scenario such as an approaching winter storm or severe weather. They were asked about ideal lead time, how meteorologists might convey forecast uncertainty, and what amounts/types of precipitation may impact their operations. People in attendance learned about different requirements and thresholds involved in their strategic planning in support of the organization’s mission during active weather. The meeting concluded with the panelists answering questions about the WRN initiative.

Another highlight of the annual meeting was courtesy of the NWA Social Media Committee, which provided three social media boot camps. Tiffany Sunday and Tim Brice spearheaded the sessions. Renee Willet, who oversees the Weather Channel social media activities, was a guest speaker in the student and broadcaster sessions. The sessions were well received and many attendees have offered ideas for a future boot camp. Many broadcasters expressed that their industry is rapidly changing and that computers, smartphones, tablets and social media are becoming more and more key components to gathering and relaying information. Attendees even used social media for their praise. A tweet from @northflamsnwa commented that the social media boot camps “really opened my eyes.”

On Thursday, the last day of the conference, we opened with speaker Shevy Greene from Raytheon and a panel discussion about the Advanced Weather Interactive Processing System (AWIPS), which proved engaging for the audience. There were a number of questions and concerns from the audience about how the primary weather visualization software tool used at NWS forecast offices across the country will be deployed and seamlessly integrated into daily operations.

If you were unable to make it to Madison, most of the presentations are available at www.nwas.org/meetings/nwa2012/agenda. Please consider joining us in Charleston, S.C., for the next annual meeting, October 12-17, 2013. Let us not forget the countless number of volunteers within the NWA who help make our annual meetings great.

Jordan Gerth, NWA 2012 Program Committee Chair
With contributions from members of the Program Committee: Lee Cronce, Gary Wade, Tim Schmit, Jeff Craven, Diane Cooper, and Christina Crowe.
The Three Rivers Chapter of the NWA had a productive and active semester. The chapter was heavily involved in Educational Outreach, fundraising, hosting speakers for the Colloquial Series, academia, social events, and workshops/conferences.

EDUCATIONAL OUTREACH
Educational Outreach chairman Donald Jellison and his protégé Jason Dahoda traveled to numerous schools this semester to teach students about a wide variety of topics relating to the Atmospheric and Earth Sciences. In October, they presented “The Four Seasons” at Hatfield Elementary and Clark Elementary to around 750 students. After the presentations, Donald and Jason visited several classrooms to answer questions and speak to the kids. Later in the month, the committee traveled to Homestead Alternative Community High School to give three presentations to the students on “Hollywood: Fact or Fiction.” This outreach focused on the movie “Twister” and what was fact and what was movie magic.

In November, Donald, Jason, and Jay Kanish went to Mountour High School and gave a presentation to one class of students on meteorology as a career. The Educational Outreach Committee also traveled to Brockway Elementary and High Schools in November to present “The Four Seasons” and “Hollywood: Fact or Fiction”, respectively.

FUNDRAISING
Members were again involved with fundraising this semester. In October, fundraising tables were set up at the campus Farmer’s Market and during Homecoming festivities. Members sold mugs, bumper stickers, shirts and raffle tickets for the chapter’s yearly snowfall competition to guess the date of the first measurable snowfall. At the end of October, chapter members participated in a Community Fun Night at Bob Evans in Washington, Pa. By presenting a coupon designed for this event, 15% of each person’s bill benefited the chapter.

In November, another Community Fun Night was hosted at Madres Mexican, a local restaurant. At the chapter meeting on November 15, 2012, members brought a $1 donation for the Red Cross Hurricane Sandy Relief Fund. In response to a campus-wide effort in November, the chapter donated $250 to the Toys for Tots Foundation. This act of philanthropy is one way the chapter continues its community outreach. In December, chapter members set up a fundraising table at the “Freezin’ 5K” held on campus. This was a five kilometer run/walk, hosted by the Parks and Recreation Club on campus.

COLLOQUIAL SERIES
With the help of the Colloquial Series Committee Chair, Ryan Adams, the chapter hosts professionals in the field of meteorology to speak to students on various subjects. This semester, the chapter was able to bring in four professionals. On October 16, 2012, Mr. Pete Manousos from FirstEnergy spoke about his career in forecasting with the company. He highlighted two Cal U interns, Emily Timko and Cody Frick, and the work they did over the summer at the Greensburg, Pa., office. He also spoke about the importance of meteorologists in the energy business.

On October 17-18, 2012, the chapter hosted Dr. Vankita Brown from the NWS Office of Climate, Water, and Weather Services in Silver Spring, Md. Dr. Brown discussed her role as a social scientist in the NWS. She gave students insight on the role communications plays within the NWS and why more integration of it is essential.
Mr. Brad Scalio spoke to chapter members about the Advanced Weather Interactive Processing System 2 (AWIPS2) on November 8, 2012. Mr. Scalio is a systems engineer architect for Raytheon. He gave the chapter an overview of his company as well as AWIPS2, information on the architecture, partnerships, and what the future holds. AWIPS2 plays a crucial role in the ability of forecasters to make accurate weather predictions that can ultimately save lives.

On December 4, 2012, the chapter hosted Ms. Faith Borden, the Warning Coordination Meteorologist (WCM) from the Charleston, W.Va., NWS office. She spoke about careers in the NWS and the June 29, 2012, derecho.

ACADEMIA

The chapter launched its new website on October 18, 2012. It is more user-friendly and has great features such as daily forecast discussions, a live Twitter feed, recent events, information about the university’s meteorology program, and much more. To stay up to date with the chapter and upcoming events please visit the website at http://hera.calu.edu/clubs/weather/.

Members have been using the department’s broadcast studio by taping Weather on the Web. This offers a great opportunity to enhance students’ abilities on camera, as well as broaden their experience in forecasting. Check out some of the past talents at http://www.youtube.com/user/CalUWx.

Nine chapter members visited the Pittsburgh NWS on October 17, 2012. They were given a tour of the office and launched a weather balloon. This is a great way to stay involved with our local WFO.

As a result of two chapter officers graduating, new officers were elected. Ryan Adams was elected as Vice President and Jason Dahoda was elected as Treasurer. Seven chapter members graduated in December and everyone in the chapter wishes them the best of luck!

SOCIAL EVENTS

In October, chapter members participated in the Alzheimer's Walk at the Pittsburgh Zoo. Members walked in honor of chapter president Elizabeth Smith’s grandfather. On October 20, 2012, members participated in the chapter’s first Alumni Hike at Ohiopyle State Park. This was an excellent opportunity for students to network with professionals who have local ties in a more relaxed environment.

In November, the chapter’s first Thanksgiving dinner social was held at chapter treasurer Emily Timko’s house. Chapter members brought a dish and celebrated an early Thanksgiving dinner with friends. This event was a success filled with fun times and stuffed bellies.

The annual chapter winter social was held on Saturday, December 8, 2012, at Brunswick Zone Bowling Alley. Including chapter members, alumni, professors, and guests, over 30 people attended the event. All attendees enjoyed dinner while bowling a few games. A senior slide show as well as a “senior send-off” was presented to the seven graduating seniors. The winter social was a fun relaxing way to wind down after a stressful semester.

STORMFEST

The chapter is preparing for the sixth annual StormFest at the Carnegie Science Center, scheduled for February 15-16, 2013. Elementary and middle school students from the Pittsburgh area come to the science center where the chapter has tables set up with various activities to teach them about the earth sciences.

The StormFest Public Relations subcommittee met once in November and December to discuss basic public relations strategies and how to implement them while preparing for StormFest. Headed by Jay Kanish, members discussed posters, the use of social media for the event and making contacts with local media outlets.

CONFERENCES

During October 6-11, 2012, 12 members of our chapter attended the 37th NWA Annual Meeting in Madison, Wis. The conference was a great way for students to network to secure possible internship and job opportunities. Ryan Adams, David Fischer, and Donald Jellison, Jr. presented posters summarizing various research projects they completed over the past year.

Chapter president, Elizabeth Smith, was selected by the American Meteorological Society (AMS) to serve as a student assistant at the 93rd AMS Annual Meeting in Austin, Texas in January. After a rigorous application process, professors selected seven other students to attend the meeting as well. They will be funded by the chapter.
Two New Articles in EJOM
Mike Coniglio, EJOM Editor
NSSL Research Meteorologist

Two new papers have just been published in the NWA Electronic Journal of Operational Meteorology: 2012-EJ9 and EJ10, “Dual-Polarization Tornadic Debris Signatures Part I: Examples and Utility in an Operational Setting” by and “Part II: Comparisons and Caveats.” Both are available through the member portal on the NWA website.

These two articles extend the concept of dual-polarization debris detection to include a number of cases from the Southeast U.S. for both C- and S-band radars. In Part I, data from the ARMOR C-band radar was analyzed to explore debris detection in a number of tornado events from varying convective morphologies, including broken convective lines, one mesoscale convective vortex, a quasi-linear convective system and supercells (see Figure 1 for an example). Numerous signatures were presented from tornadoes rated EF-0 to EF-5. A total of 128 radar volumes were collectively examined to quantify the loose relationship between tornado strength and polarimetric debris signature diameter and height characteristics.

Part II explores some of the caveats observed using this signature in NWS operations or during post event assessment. Operational examples presented in this article demonstrate that polarimetric debris detection is not always clear cut, and at times can be challenging. The authors explored the displacement of the polarimetric debris signature from the ground track location of the tornado. They also provide an example where polarimetric debris signature criteria will be met but no damage will be observed (Figure 2). Finally, the authors made additional suggestions on how to confidently assess radar data to determine if a polarimetric debris signature is present within a radar volume.

Figure 1. ARMOR C-band radar images from 2016 UTC on April 27, 2011, showing the high horizontal reflectivity factor, ZHH (top and middle), and the correlation coefficient, ρhv (bottom). The middle and bottom panels are vertical cross sections through the storm taken along the white line in the top panel. Scales on the left are reflectivity (dBZ), and ρhv (value*100).

Figure 2. Four panel image from the WSR-88D (S-band) at NWS Peachtree, Ga., on March 2, 2012 at 0214 UTC showing (top to bottom) ZHH (scale at far left), radial velocity (VR, scale second from left), ρhv (scale third from left) and differential reflectivity (ZDR, scale fourth from left). White circles indicate the location of the low signal-to-noise ratio region misidentified as debris.

New NWA Members from November 2012

Regular/Military/Retired
Lynn Baringer
Brittany B. Beggs
Trevor C. Bevens
Thomas Delio
Joshua Fanjoy
Heather Haley
Julie Hammond
Jason G. Holmes
Claudia McDermott
Gilbert Sebenste
David L. Solomon
Shawn M. Trueman
Gail Vaucher
Robert S. Wacker
Greg Warner

Students
Chris Birchfield
Hunter L. Greene
Lauren Heiba
Timothy W. Humphrey
Jonathon Isbell
Ryan Kiely
Yasser Kishk
Shelby Elizabeth Latino
Christie Lightfritz
Cory Martin
Cash Payne
Ryan Walsh
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 Coleville Center in Coleville, Texas. Free and open to the public, but arrive early as seating is limited. Registration is not required. http://www.tessa.org

March 8-10: The 38th Annual Northeastern Storm Conference
Sponsored by the Lyndon State College AMS/NWA local chapter, this annual conference will be at the Holiday Inn in Rutland, Vt. https://sites.google.com/site/lyndonstateamsnwa/

April 4-6: 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 at the North Charleston South Carolina Convention Center with the meeting hotel being the Embassy Suites located next door. Details are forthcoming. The Call for Abstracts expected in late January.

Other Meetings, Conferences and Special Events in 2013

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

This will be in the Elvey Building on the University of Alaska Fairbanks campus. Abstracts are due 23 January. http://weather.arsc.edu/Events/AWS13/

March 25-28: The National Hurricane Conference
This Annual Conference will be held at the Hilton New Orleans Riverside in New Orleans, La. Details are forthcoming. http://www.hurricanemeeting.com/

April 8–12: NOAA Satellite Conference for Direct Readout, GOES/POES, and GOES-R/JPSS Users
This conference will be in Miami, Fla. http://satelliteconferences.noaa.gov/Miami2013

April 17-24: The National Tropical Weather Conference
This professional conference for Broadcast Meteorologists will be at the Isla Grand Resort 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 and on Facebook https://www.facebook.com/NationalTropicalWxConference for up to date information.

May 26-30: The 2013 Joint Scientific Congress of the CMOS, CGU and CWRA
It will be held at TCU Place in Saskatoon, SK, Canada. Presentations are encouraged for all areas of interest of CMOS (Canadian Meteorological and Oceanographic Society), CGU (Canadian Geophysical Union), and CWRA (Canadian Water Resources Association). The theme is Bridging Environmental Science, Policy and Resource Management. Visit the Congress Web site for contacts and further information.

Congrats to Our 2012 Fall Scholarship Winners!

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<tr>
<th>Phillips Family Undergraduate Meteorology Scholarship</th>
<th>Arthur Pike Meteorology Scholarship</th>
<th>Bob Glahn Scholarship in Statistical Meteorology</th>
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<td>Elizabeth Smith</td>
<td>John Banghoff</td>
<td>Brian Popick</td>
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<td>California University of Pennsylvania</td>
<td>The Ohio State University</td>
<td>University of Northern Colorado</td>
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As 2012 ends we are left to ponder our successes and failures of the past year and the exciting changes that lie ahead in the new year. The weather events that made the headlines of 2012 were widespread with even a few seldom-used terms like derecho and superstorm affecting the Mid-Atlantic and other East Coast states. These events were forecast and broadcast to the American public by dedicated operational meteorologists. Weather events will continue to dominate news headlines and our members will continue the pursuit of excellence in the field of operational meteorology.

Some of the new and exciting things for NWA members in 2013 are the new Journal of Operational Meteorology combined from our NWA Weather Digest and Electronic Journal of Operational Meteorology; an all electronically delivered monthly NWA Newsletter; and our weekly weather news blasts of pertinent weather news via Multiview. NWA communications will continue to improve with the work of our expanding Communications Committee leading the charge to bring better social media options to the weather community and expanding the NWA brand well beyond our roughly 3,000 current members. New local chapters will continue to be chartered, expanding the NWA into more cities and campuses. A brand new professionally produced YouTube video highlighting our 37th Annual Meeting in Madison, Wis., will show the world what many of us already know: that the NWA annual meetings are always educational and offer networking opportunities with the heartwarming feel of a family reunion.

My challenge to you in the new year is to get involved with your local NWA chapter, volunteer for a term on an NWA committee, or offer to mentor one of our many new student members. Please help us in continuing our tradition of inclusiveness in this truly amazing professional organization, our National Weather Association.

Acting President Bruce Thomas