Grant Money in Action: Kindergarteners Learn Weather Patterns

Submitted by Michelle Maust
Environmental Education Outreach Coordinator
For-Mar Nature Preserve and Arboretum/Genesee County Parks and Recreation Commission

The Sol Hirsch Grant was awarded to For-Mar Nature Preserve and Arboretum in Flint, Michigan, for its “Patterns in Weather” program that teaches kindergarten students how to use weather patterns to identify the season and plan for daily weather events.

The children learn how to read thermometers by putting them in different locations in the room during the program. At the end of the program, we collect the thermometers and compare the different readings. The children act out getting up for one week and looking out a window (looking at a picture in a frame) to check the weather and graphing what they see. Next, we talk about what season they think it is by looking at the number of sunny days versus rainy days on the graph. A relay game lets students choose clothes appropriate for the weather conditions announced. (They really enjoy wearing the sunglasses and earmuffs.)

The grant funds purchased supplies including child-friendly thermometers, picture frames, graphing materials, dress-up clothing, and traveling totes. In the 2016-2017 school year, 26 programs reached 594 kindergarten students across Genesee County, Michigan.

Thank you for helping reach so many children and make learning fun through the Sol Hirsch Grant!

Sol Hirsch Education Fund Grants are awarded annually to teachers/educators of grades K-12 to help improve the education of their students, their school, and/or their community in the science of meteorology. The grants were established in 1994 thanks to the generosity of former National Weather Association Executive Director Sol Hirsch and many NWA members, and were transferred to the National Weather Association Foundation in 2017.

Summer Safety Campaign

On June 1, the National Weather Service launched its Summer Safety Campaign. Lightning, extreme heat, heavy rains, and tropical storms are a few of the weather hazards occurring in summer. Know your risks when outdoors and be prepared to take the appropriate action. Head on over to the Summer Safety Campaign website for more information.
This month, I’ve got a few quick takes on a variety of topics.

**The Big Shindig:** The NWA 42nd Annual Meeting, taking place in Garden Grove, California (near Anaheim), is fast approaching. To say that attending an NWA annual meeting is a thoroughly enjoyable and enriching experience is truly an understatement. Not only is it a chance to hear about all of the wonderful innovations, projects, studies, and experiences going on within our industry, but it’s a great opportunity to network and get to know fellow meteorologists from all over, as well as reconnect with old friends and colleagues. Our program committee has planned some terrific sessions and activities including speed mentoring for students and early career professionals, the Broadcast Meteorology Workshop, a lively panel discussion on vulnerable populations, the Weather and Forecasting Master Class, special GOES-16 presentations, several icebreakers and mixers, the very popular WeatherReady Fest, and more. There is also the Annual Golf Tournament benefitting the National Weather Association Foundation, which provides support for college students in meteorology and related fields as well as for K-12 science educators. Interested in attending? Just head to the NWA website and click on the Annual Meeting tab to register (see page 3 for meeting specifics).

**Making the best presentations:** Speaking of the Annual Meeting, over the next couple of months, those whose abstracts have been accepted for presentation will be hard at work creating their slides or posters. Getting started is often the most difficult part for me. It can be daunting to stare at a blank PowerPoint slide knowing that you need to turn it into 12 minutes (or 4 by 8 feet) of brilliance. Several great resources are available to assist in creating interesting, concise, and successful presentations—both oral and poster. A few of these tips and guidelines can be found on the Annual Meeting site. You can also consult the June 2016 NWA Wednesday Webinar that discussed how to make a great scientific poster. Lastly, the book “Eloquent Science” by Dr. David Schultz is one of my favorites and has great guidelines for high-quality presentations.

**Time for extreme heat:** We are approaching what is historically the hottest part of the year, and we’ve already seen deadly record-breaking heat in the Southwest. We are approaching what is historically the hottest part of the year, and we’ve already seen deadly record-breaking heat in the Southwest. While there is much that can be done to prepare for and respond to extreme heat episodes, an effort must be made to understand the impact that extreme heat can have on a community. As a meteorologist, we can play a crucial role in educating the public about the dangers of extreme heat and how to stay safe during these times. We can also work with local officials to develop and implement effective strategies for managing the impacts of extreme heat on vulnerable populations, such as the elderly, children, and those with certain medical conditions. By working together, we can help ensure that our communities are better prepared to handle the challenges of extreme heat.

**Creative paths in meteorology:** I was recently talking with a college student who is working on a double major in meteorology and engineering with a goal of specializing in the wind energy sector. I was really impressed that he was planning ahead in this way, tailoring his coursework for a particular specialty within the weather enterprise. Of course, not every student needs to be this laser-focused on a career path this early in college. But considering the tough job market for meteorologists in some sectors and the projected growth in renewables such as wind and solar energy, students beginning meteorological studies would be wise to think beyond traditional forecasting and consider the widening scope of jobs in weather-dependent industries. These include the energy sector, farming and agricultural support, as well as the retail, military and intelligence, finance, shipping, and aviation sectors. Do you have an unusual or outside-the-box meteorology job? Please message us on the NWA Facebook page — we may want to feature you in an upcoming Newsletter!
The 42nd NWA Annual Meeting
Keynote Speaker:
Dr. Ahsha Tribble

In May’s newsletter, we told you about one of the four keynote speakers at the NWA 42nd Annual Meeting in September, Dr. Louis W. Uccellini. This month we are highlighting another of the speakers, Dr. Ahsha Tribble.

Dr. Ahsha Tribble is the Deputy Regional Administrator for the FEMA Region 9 Office. Her responsibilities include overseeing the operational aspects of regional disaster response and recovery, and mitigation and preparedness activities in the FEMA Region 9 area of responsibility. This region includes California, Arizona, Nevada, Hawaii, the territories of American Samoa and Guam, the Commonwealth of the Northern Mariana Islands, the Federated States of Micronesia, and the Republic of the Marshall Islands.

Before joining FEMA Region 9, Dr. Tribble served as the Senior Advisor to Department of Energy (DOE) Secretary Ernest Moniz where she focused on identifying, strengthening and integrating DOE capabilities for emergency preparedness and response, security, and resilience to DOE facilities and assets across the nation’s energy infrastructure. She also served on the Secretary’s Cybersecurity Steering Committee.

Prior to her tenure at DOE, Dr. Tribble served more than three years on the White House National Security Council (NSC) staff, including interim service as Deputy Homeland Security Advisor, Senior Director for Response, and Director of Critical Infrastructure Protection and Resilience. She supported White House response coordination and operational policy for major disasters including Hurricanes Sandy and Irene; the Japanese earthquake, tsunami and nuclear disaster; major flooding on the Mississippi River and in Colorado; numerous tornadoes; and the deadly West Texas chemical plant explosion. She has traveled with President Obama and Vice President Biden to disaster areas to provide technical support on federal response activities. Dr. Tribble also led the development and release of the new presidential policies for Critical Infrastructure Security and Resilience, National Special Security Events, and Chemical Facilities Safety and Security.

Prior to joining NSC, Dr. Tribble spent 10 years in the National Oceanic and Atmospheric Administration (NOAA). As Senior Policy Advisor for Weather and Climate, she oversaw scientific, operational and policy matters related to domestic and international climate services and the provision of weather services. She led the national coordination and planning for hurricane forecast operations for the Deepwater Horizon oil spill and conducted White House briefings on weather emergencies. Dr. Tribble also served as the first Executive Officer at the NOAA National Hurricane Center in Miami, as well as Technical Chief of Staff and Senior Science Advisor to the Deputy NOAA Administrator. She represented the U.S. on panels at the United Nations Framework Convention on Climate Change Conference of Parties and routinely engaged administration officials on climate science and policy issues.

Dr. Tribble received a Bachelor of Science in mathematics/actuarial science from Florida A&M University, a Master of Science in meteorology from Florida State University, and a doctorate in meteorology from the University of Oklahoma.
Here is a look at interesting weather news and factoids from around the globe this month. Click the titles for details!

The Science of Why It’s Too Hot for Some Planes to Fly in the Southwest U.S.
The National Weather Service in Phoenix, Arizona confirmed that a record high temperature was set Monday, June 19. The temperature was 118°F(!). This tied the record set only a year ago in 2016. Believe it or not, it is unsafe to operate many of the airplanes currently in use by major airlines when temperatures are this hot, and science explains why.

Some Clouds Filled with Ice Lollipops
A cloud full of lollipops may sound like the most delicious carnival treat ever... except this cloud's lollipops are made of ice. Scientists spotted the lollipop-shaped ice crystals during a research flight in southwest England. The researchers describe their findings in a new study in Geophysical Research Letters, a journal of the American Geophysical Union.

Warning System for Great Lakes Tsunamis Under Development
Although typically associated with earthquakes, there's another type of tsunami wave generated by weather: a “meteotsunami.” They can occur on the Great Lakes and now the University of Michigan's Cooperative for Great Lakes Research (CIGRL) is developing a warning system for them.

Rain and Snow Help Stress Out Earthquake Faults
Natural forces shape every inch of our globe, but in California, the two big players are water falling out of the sky (or the lack thereof) and earthquakes.

NEW NWA Members
Please welcome these members who joined in May!

Sharoon Bhatti
Guy Brown
Brittney Bryant
Brian Cizek
Robert Frisby
Mark Jelinek
Colette Mancini
Anthony Peoples
Christopher Reece
Andrea Respecki
"Putting Science into Service"

The 42nd NWA Annual Meeting
Hyatt Regency Orange County
Garden Grove, California
September 16 - 21, 2017

Important Dates
• Early Bird Registration closes July 27
• Preliminary Agenda Posted On-line: Coming soon!
• NWA Annual Meeting: September 16-21

“Putting Science into Service”

Every day, operational meteorologists put their knowledge and understanding of weather, climate, and related fields to work in service to a wide variety of partners and users. They work together in a circular process chain—with researchers providing relevant study and modeling results to those creating warnings and forecasts and to those charged with clearly conveying this information to the public and other users—in order to help make crucial weather- and climate-dependent decisions.

The needs of these users then help inform the research, and the process begins anew. Within this process, achieved through strong partnerships among all entities within the weather enterprise, operational meteorologists apply the science to solve weather- and climate-related problems, benefit society, and fulfill countless weather and climate needs.

Helpful Links
• Annual Meeting Site
• Meeting Registration
• Hyatt Regency Site

Schedule of Events
• WeatherReady Fest: Saturday, September 16
• Broadcast Meteorology Workshop: Sunday, September 17
• Ninth Annual Student Session including Speed Mentoring: Sunday, September 17
• General Sessions: Monday-Thursday, September 18-21
• NWA Annual Awards Luncheon: Wednesday, September 20
• Click for full events listing

Abstract Submission
The period to submit abstracts is closed.

Program Committee Co-Chairs
Todd Lericos
NOAA National Weather Services
Las Vegas, NV

Miles Muzio
KBAK-TV
Bakersfield, CA

Broadcaster Meteorology Workshop Program Chair
Mike Goldberg
WTVR-TV
Richmond, VA

Click for program chair contact info

Conference Hotel Information: Hyatt Regency Orange County
The NWA block is upon until August 23 or until full; reservations after whichever comes first will be at the hotel’s prevailing rate (not our block rate). Click to book your rooms!

Availability Notices:
Please be advised that there are fewer rooms available on Thursday, September 21, than the other days, so when you book your stay and it says not available, that does not mean that all the nights are unavailable. You can adjust your booking and try again.

See the May Newsletter for detailed hotel info including parking details, additional room sizes/suit pricing, and applicable taxes/fees.

Hotel guest room rates:

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Five articles have been published in the NWA’s JOM since the last update in April.


JOM 2017-5: Forecasting the inland extent of lake effect snow bands downwind of Lake Ontario, by Joseph P. Villani, Michael L. Jurewicz Sr., and Karin Reinhold.


JOM 2017-7: A synoptic and mesoscale analysis of heavy rainfall at Portland, ME 13-14 August 2014, by Margaret B. Curtis.

The JOM publishes submissions in four categories: Article, Short Contribution, Images of Note and Commentary. The JOM is a peer-reviewed, all-electronic journal with an international scope, providing authors with the benefits of economical publication costs and rapid publication following acceptance.

If you are interested in submitting a paper to the JOM, please go to the website for author information.

Thank you to the JOM authors, reviewers and editors for continuing to make JOM a success!