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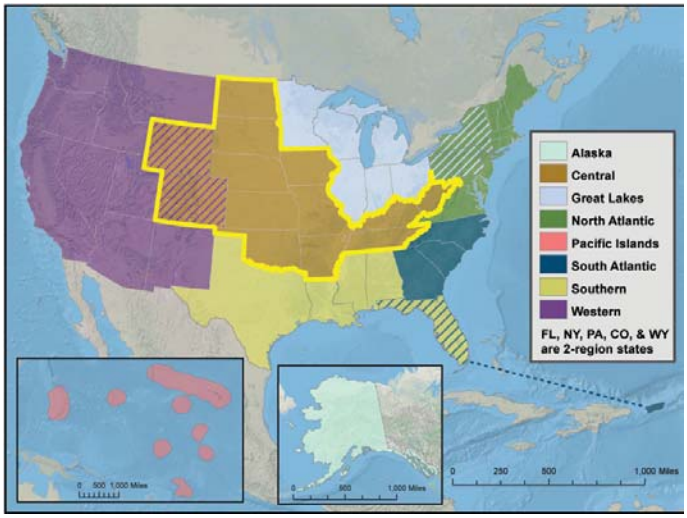
Issue 1: January 2009

The NOAA Central Region: Past, Present and Future



Given recent public attention to climate change, natural disasters and the state of the oceans, NOAA recognized the need for a more regional focus to improve service integration and collaboration with stakeholders. To meet this need, the Regional Collaboration Effort was born in 2002 and 2003 as a pilot program and then in 2006 endorsed as the NOAA Regional Collaboration Effort. The program has grown to include the following Regions: Alaska, the Great Lakes, the Gulf of Mexico, the North Atlantic, the Pacific Islands, Southeast and the Caribbean, the Western Region and the Central Region. Each Region addresses its own distinct challenges, priorities and collaboration efforts through its Work Plan.

The NOAA Central Region team successfully completed numerous Fiscal Year 07-08 Work Plan (a requirement for each region) projects, including the rollout of the Space Weather Prediction Center outreach materials, the inventory of potential Central Region partners in water quality services, and several employee and stakeholder meetings held in various locations (Boulder, Kansas City, Norman).

In FY08-09, the team will focus on topics such as internal outreach, the regional challenges of climate change, and developing partnerships for water quality. The FY 08-09 Work Plan grouped activities under six overarching themes: Integrated Water Resource Management, Impacts of Climate Change, Integrated Ecosystem Assessments, Hazard Resilient (Coastal) Communities, Research to Operations, and Outreach and Communications, consistent with all regions.

INTEGRATED WATER RESOURCE MANAGEMENT

As a top priority for FY 08-09, the Central Region will establish an integrated Mississippi River/Coastal Gulf of Mexico water-monitoring network. This network will include comprehensive surveys of Mississippi River water quality/quantity data and Northern Gulf of Mexico coastal ocean data. The other IWRM priority is a workshop to explore and record drought information need.

IMPACTS OF CLIMATE CHANGE

To explore the impact of agricultural practices on water quantity and local climate, the Central Region co-hosted the "Corn and Climate" workshop at the Biobased Industry Outlook Conference. (See this quarter's article, "Corn and Climate.") The push for biofuels impacts crop choice and necessitates a greater understanding of corn and future climate scenarios. NOAA will continue to collaborate with other local and federal agencies on this pertinent topic.

NOAA also participated in the American Indian/Alaska Native (AI/AN) Climate Change Working Group Conference at Haskell Indian Nations University last August. NOAA will use information gained at this conference to address the Native American concerns regarding climate change impacts.

INTEGRATED ECOSYSTEM ASSESSMENTS

The Central Region will participate in the Federal Working Group (FWG) in the Missouri River Recovery Implementation Committee (MRRIC) planning group. By leveraging NOAA resources, the team plans to help MRRIC coordinate state/tribal governments in managing ecosystem issues within the Missouri River basin. Additionally, the team will explore the potential for collaboration on an ecosystems-related project with the Mississippi River Museum and Aquarium in Dubuque, IA.

HAZARD RESILIENT (COASTAL) COMMUNITIES

The Central Region plans to expand the StormReady program to include "non-NWS" NOAA Central Region facilities and the "Big 3" NOAA Line Office facilities. As a second priority, NOAA will develop additional educational seminars to introduce WAS*IS principles to NOAA employees. (See "WAS*IS: Beyond Storm Warnings" on page 2.) The team will seek opportunities to work with the WAS*IS community to better infuse social science into NWS products and services including the possible need to adjust hazard products to better reflect the societal impact of these hazards to NOAA customers and partners; the benefit of incorporating social science into the creation of new probabilistic forecasting products; and other needs.

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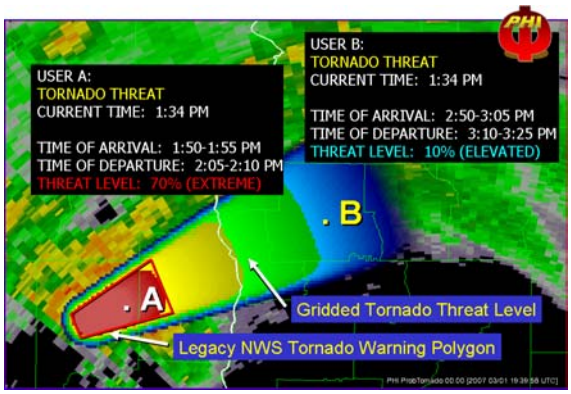
WAS*IS: Beyond Storm Warnings

The Weather and Society*Integrated Studies (WAS*IS) initiative began in 2005 as a grassroots effort to examine the social impacts of weather. Originally conceived as a one-time workshop, WAS*IS has blossomed into an ongoing dialogue among a dedicated interdisciplinary community of meteorologists and social scientists. Through their hard work, WAS*IS is changing what "was" to what "is" the future of integrated weather studies.

A monthly series first held in Boulder is now available to all in the Central Region through the use of GoTo meeting technology. WAS*IS facilitates discourse and collaboration through its Webinar Series. An October 20th webinar entitled "Exploring People's Attitudes and Behaviors for Weather Forecast Information" (Julie Demuth, NCAR Societal Impacts Program) showed how average Americans receive active and passive weather forecasts 115 times per month, totaling over 300 billion forecasts shared per year! To read about this or the November 10th WAS*IS Webinar and view upcoming seminars, visit **http://www.sip.ucar.edu/wasis/**.

An advanced WAS*IS workshop, "Beyond Storm-Based Warnings: A Collaboration between Stakeholders, the National Weather Service, and the Hazardous Weather Testbed," was held September 15-17, 2008 at the National Weather Center in Norman, OK. The overall objective of the workshop was to begin the process of engaging meteorologists in the public and private sector with social scientists and other academia to determine the next generation of weather hazard services and products, and establish optimal ways to communicate probabilistic hazard information to the entire spectrum of potential users of that information. For more information about the workshop, visit **http://ewp.nssl.noaa.gov/wasis2008/**.

Among other topics, the workshop explored an experimental model for probabilistic hazard information (PHI) which was developed at the National Severe Storm Laboratory (NSSL) and tested with NWS forecasters at the Hazardous Weather Testbed. The PHI concept involves 1) high temporal and spatial resolution gridded hazard data, which seamlessly integrate warning, watch, and advisory (WWA) scales, 2) a rapidly-updating translating hazard grid which continuously moves and evolves with the threat and provides equitable lead times and times-of-arrival/departure for all users downstream of the threat, and 3) inclusion of forecaster uncertainty information in the form of probabilities and/or "threat levels." This concept can provide more robust information about the NWS meteorologist's interpretation of the hazards, and can be customized and aggregated into products across many levels of user sophistications, from specialized point warnings to legacy WWA products.



EMPLOYEE SPOTLIGHT: *Scott Dummer*

How do you describe your job?

I'm the Hydrologist-in-Charge for NOAA's NWS North Central River Forecast Center located in Chanhassen, MN. We provide river forecast information for navigation, flooding and droughts. Our domain covers 8 states including the Mississippi River, upstream of St. Louis, rivers that flow into a portion of the Great Lakes, and the Red River, as it flows into the Hudson Bay.

When did you join NOAA?

I started as a meteorology student in May of 1993. Within six weeks, the record-breaking Great Flood of 1993 occurred, which we forecast, and that hooked me on hydrology.

What is river forecasting, and how does it differ from weather forecasting?

We enter variables such as rainfall, snow and temperature into a hydrology model to forecast river volumes and stream levels for droughts, floods and navigation. It's similar to weather forecasting, except we modify the model itself to adjust for timing, magnitude or other relationships in real-time.

What agencies do you collaborate with?

We collaborate with local, state and federal agencies such as FEMA, the U.S. Corps of Engineers and the River Industry Action Council (RIAC). Internally we are working with the NOAA Great Lakes Research Laboratory (GLERL) on water quality projects. We're currently developing a tool for Wisconsin farmers to determine the best time to fertilize, so rain won't wash chemicals off their fields and pollute the rivers.

What would your coworkers never guess about you?

That I have a sense of humor! Although I seem fairly serious, I appreciate a good joke.

Where can we find more information?

Visit our website, **www.weather.gov/ncrfc**, call 952-361-6650 or email me at **scott.dummer@noaa.gov**.

*Email **noaa.centralregion@noaa.gov** and share your ideas on the next employee to feature.*

Corn & Climate

With skyrocketing petroleum costs, a growing demand for biofuels, an unstable economy and a warming global climate, now is a time of unprecedented turbulence in the agriculture industry. At its epicenter? Corn. In response, NOAA co-sponsored the "Corn and Climate" workshop at Iowa State University in Ames on September 10th, 2008. The workshop was part of the 6th annual Biobased Industry Outlook Conference, with keynote speaker Congresswoman Herseth Sandlin (South Dakota). Through the efforts of the NOAA Central Region Collaboration Team, the workshop addressed climatic impacts and needs in the United States Corn Belt.

Participants discussed topics such as sustainable practice, bioeconomy, global warming, carbon credits and climatic impacts on agriculture. Researchers and producers expressed concern about climatic extremes and disasters, and requested a faster, more effective information-sharing system. They also asked for regionally-focused climate models and a better understanding of drought impacts.

Participants included NOAA (NWS, NCDC, and ESRL), the U.S. Climate Change Program, International Research Institute (IRI), five State Climatologists, nine universities, the National Drought Mitigation Center, several state departments of agriculture, the Farm Bureau, environmental groups, corn and soybean associations and individual producers. The workshop was the beginning of a large-scale effort, and future plans call for a drought early warning workshop and an exploration of the impact of corn on climate and water quantity. Watch for new opportunities to collaborate on this key topic.

Winter Storm Guide

With colder temperatures and wintry precipitation looming, now is the time to prepare for winter's onslaught of snow, frigid temperatures and dangerous driving conditions. Here are simple steps you can take to help keep you and your family safe during winter weather:

Photo Copyright 2008 Will von Dauster

For home:

- Prepare a storm safety kit with flashlights, matches, first-aid supplies and other items. See a full list at:
  www.weather.gov/om/winterstorm/winterstorms.pdf
- Keep enough supplies in the house for three days. Include no-cook, high-energy snack foods, plenty of water, extra medicine and baby items.
- Winterize your home. Clear rain gutters, insulate walls and pipes, keep heating tanks full, and have an alternate heat source ready (space heater/fireplace).
- Create and implement a family disaster plan. For more information, check out:
  http://www.redcross.org/disaster/disasterguide/

For your car:

- Inspect and winterize your vehicle. Install snow tires and always keep your gas tank near full.
- Keep your mobile phone charged and buy a car charger.
- Pack an auto winter storm survival kit with items like blankets, a flashlight, a first-aid kit, snack food, water, extra clothing, a windshield scraper and a shovel. More tips at:
  www.weather.gov/om/winterstorm/winterstorms.pdf
- Check forecasts and always let someone know your estimated time of arrival (ETA) and route.

Now you're ready for anything! For the latest forecasts and complete information on winter storm preparation, check out:
http://www.weather.gov/om/winter/index.shtml.

Relevant Resources

There are many resources within NOAA that we want to share with you. Below are a couple of sites that provide information about the various resources that exist in our region. Bookmark the following sites to stay informed about new ideas and the latest findings.

NOAA REGIONAL COLLABORATION

External site: **http://www.ppi.noaa.gov/PPI_Capabilities/regional_collaboration.html**

Internal site: **https://www.ppbs.noaa.gov/regional_collaboration.html**

GOOGLE MAPS

Listing of NOAA Central Region offices (a new feature on the Regional websites).

https://www.ppbs.noaa.gov/Regional_Collaboration/Central/central.html

NOAA IN YOUR STATE

A summary of the NOAA programs or activities in your state or territory.

http://www.legislative.noaa.gov/NIYS0107/noaainyourstate.html

NOAA WORLD

An internal site featuring all things (people, places and things) NOAA.

http://www.noaaworld.noaa.gov/

The NOAA Central Region:
Past, Present and Future

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RESEARCH TO OPERATIONS

The NWS will prepare materials to educate its meteorologists and others on how to use dual-polarized radar in operations. (Deployment is forthcoming.)

OUTREACH AND COMMUNICATIONS

The Central Region will create outreach materials for "Get to Know NOAA" integrated services capabilities, focusing on NOAA's broad base of capabilities beyond the NWS. This e-newsletter is a key product to support this effort. Provide your feedback, ideas and pertinent stories for future editions to **noaa.centralregion@noaa.gov**.

The Central Region is responsible for a significant portion of the nation's agriculture, transportation networks and technology. A better understanding of the Heartland impacts everything from national food and fuel prices to ecology and conservation. The NOAA Central Region's continued good work addressing the climate of this vital region is crucial to the health and welfare of the entire nation. For more information on the FY 08-09 work plan, check out **https://www.ppbs.noaa.gov/Regional_Collaboration/Central/central.html**, under "Action Plans."

OFFICES in the CENTRAL REGION

We intend to highlight resources in specific locations to foster awareness. For example, did you know some states have a geodetic advisor? Do you know what a geodetic advisor is and does? If interested, click on the URL to learn more. To see your state featured in the next quarterly newsletter, or if we have missed you and your office, email us at **noaa.centralregion@noaa.gov**.

ARKANSAS

Little Rock NWS Weather Forecast Office
8400 Remount Road, North Little Rock, AR 72118
http://www.srh.noaa.gov/lzk/

KENTUCKY

Paducah NWS Weather Forecast Office
8250 Kentucky Highway 3520
West Paducah, KY 42086-9762
http://www.crh.noaa.gov/pah/

Louisville NWS Weather Forecast Office
6201 Theiler Lane, Louisville, KY 40229-1476
http://www.crh.noaa.gov/lmk/

Jackson, KY NWS Weather Forecast Office
1329 Airport Road, Jackson, KY 41339
http://www.crh.noaa.gov/jkl/

Kentucky State Geodetic Advisor
501 High Street, Frankfort, KY 40601
http://www.ngs.noaa.gov/ADVISORS/AdvisorsIndex.shtml

TENNESSEE

Memphis NWS Weather Forecast Office
777 Walnut Grove Rd, OM-1, Memphis, TN 38120
http://www.srh.noaa.gov/meg/

Nashville NWS Weather Forecast Office
500 Weather Station Rd, Old Hickory, TN 37138
http://www.srh.noaa.gov/ohx/

Morristown NWS Weather Forecast Office
5974 Commerce Blvd, Morristown, TN 37814
http://www.srh.noaa.gov/mrx/

Memphis Center Weather Service Unit
3229 Democrat Road, Memphis, TN 38118
http://www.srh.noaa.gov/zme/