

Peak Performance Newsletter

Spring 2015



Performance & Evaluation Branch, Operations Division
NWS Office of Chief Operating Officer, Silver Spring, Maryland

This Issue: April 2015

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The Newly Formatted NWS 2015 Customer Satisfaction Survey Will Go "Live" April 2015

By Sal Romano, NWS Headquarters

The NWS contracted with the Claes Fornell International (CFI) Group to assist in the development and implementation of this year's survey, as we have done for the previous five annual surveys. The CFI Group staff are experts in the science of customer satisfaction and use the American Customer Satisfaction Index (ACSI) methodology. The ACSI was created by CFI Group's founder, Claes Fornell, under the auspices of the University of Michigan. It is the only uniform measure of customer satisfaction of the U.S. economy and is used by more than 200 companies and government agencies.

The 2015 Customer Satisfaction Survey undertaken by the Operations Division Performance and Evaluation Branch will be available beginning April 2015. For the past five years respondents were asked, over

approximately a 2-week period, to access a web link to take one lengthy survey. The format of this year's survey has changed and so has the time period over which the survey will go "live." This new survey will be available throughout the year as a short, web-based, pop-up on NWS websites (e.g., weather.gov, WFOs' web pages). A few of the survey questions will be substituted throughout the year to be representative of seasonal weather changes and major weather events. The goal is to obtain 2,000 completed surveys monthly (approximately 67 completed surveys each day) for a total of 24,000 completed surveys annually. This will provide the NWS with continuous data collection of the public's satisfaction with NWS products and services.

The survey will contain no more than 25 questions. About 15 questions will be comprised of the usual customer satisfaction index questions,

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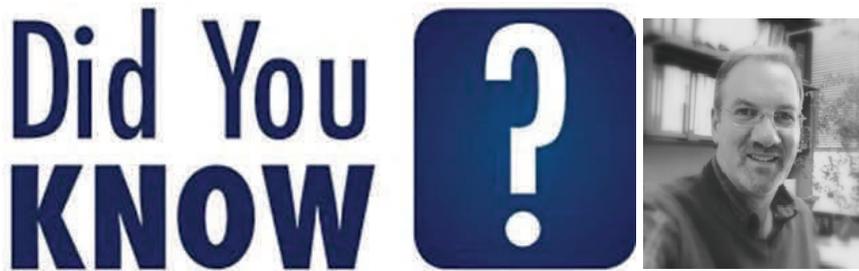
The Newly Formatted NWS 2015 Customer Satisfaction Survey Will Go “Live” April 2015 – Continued from Page 1

desired outcomes, demographics, and the usage of NWS forecast information. Additionally, 5–10 topical questions (e.g., seasonal, event-driven, agency requested) will be included. For example, the survey that will go “live” in April will include winter weather-related questions concerning a Weather-Ready Nation and outreach.

In addition to these pop-up surveys, CFI will select 250 individuals quarterly and compensate them to take a very similar survey. These respondents will more closely represent the demographics of the United States according to the 2010 U.S. Census.

If you receive our CFI Customer Satisfaction Survey pop-up, please take a few moments to complete the survey.

To help alleviate potential confusion, you should be aware that the NWS Office of the CFO is leading the effort on another continuous pop-up survey currently active on the weather.gov website. That survey, administered by ForeSee, is mainly focused on various aspects of the weather.gov page itself and the pop-ups occur exclusively on weather.gov. ♦



By Doug Young, Performance and Evaluation Branch,

NWS Headquarters

***Did You Know* that we changed the name of our branch, moved to a different location in the organizational structure, and changed our phone numbers?**

As part of the National Weather Service Headquarters reorganization, on April 1, 2015, the Performance Branch changed its name. We are now officially known as the “**Performance and Evaluation Branch (PEB)**.” This new name conveys the dual responsibilities within the branch to generate and track performance statistics and evaluate service quality.

Previously, the Performance Branch had been located in the Office of Climate, Water, and Weather Services (OCWWS), which no longer exists. While much of what was OCWWS has been moved under the Analyze, Forecast, and Support Office (AFSO), the new PEB resides within the Operations Division under the Office of the Chief Operating Officer (OCOO), as shown in **Figure 1**. Part of the justification for this move was to provide the Branch a more direct line of communication to senior leadership outside of the service areas it supports. In addition, it is anticipated that the PEB will begin providing more rapid performance-related information in support of the NWS Operations Center Branch.

A closer view of the size and scope of the OCOO Front Office and Operations Division is depicted in **Figure 2**. Also shown is the management line of command and the PEB staff members.

Did Your Know? “National Weather Service Headquarters Reorganization” – Continued from Page 2

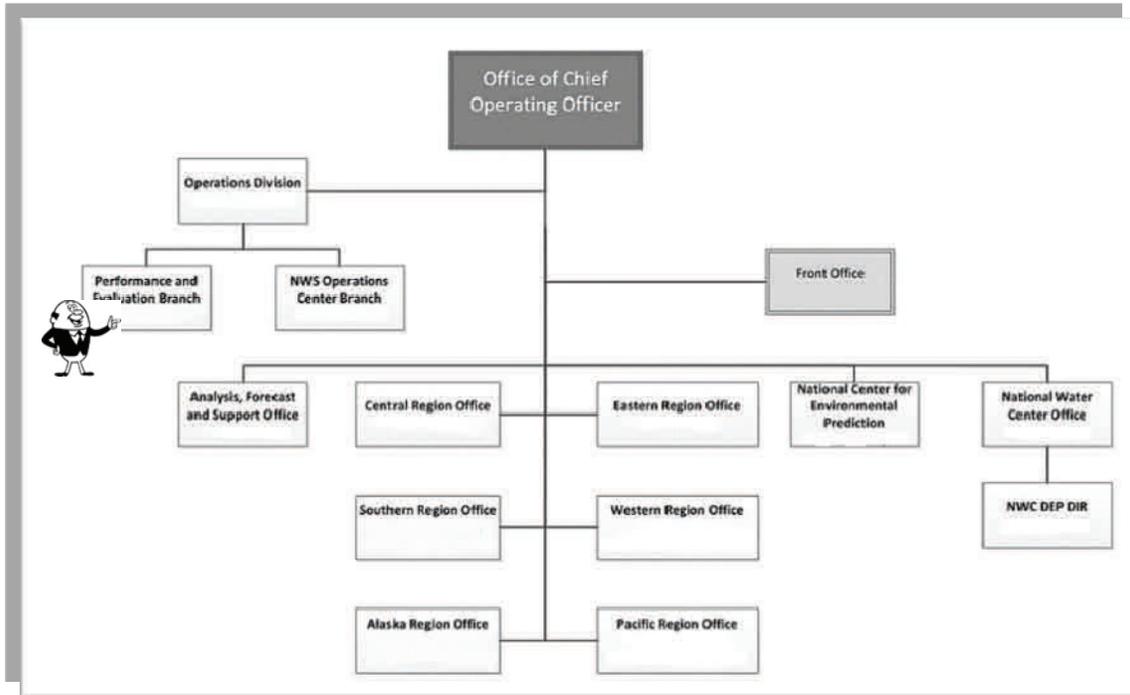


Figure 1. Organization table depicting the position of the Performance and Evaluation Branch within the Office of the Chief Operating Officer.

Please note that the PEB staff remains exactly the same in the new organizational structure. However, it is possible that duties may shift slightly in the future as the PEB duties reflect changes to support organizational needs in a Weather-Ready Nation environment.

I also mentioned that our phone numbers have changed. This much-anticipated update to our NWS Headquarters phone system is not directly related to the reorganization of NWS Headquarters; however, I felt it would be useful information to share with our Peak Performance readers. The following are phone numbers, **Figure 3** on next page, and primary areas of responsibility for the PEB staff members:

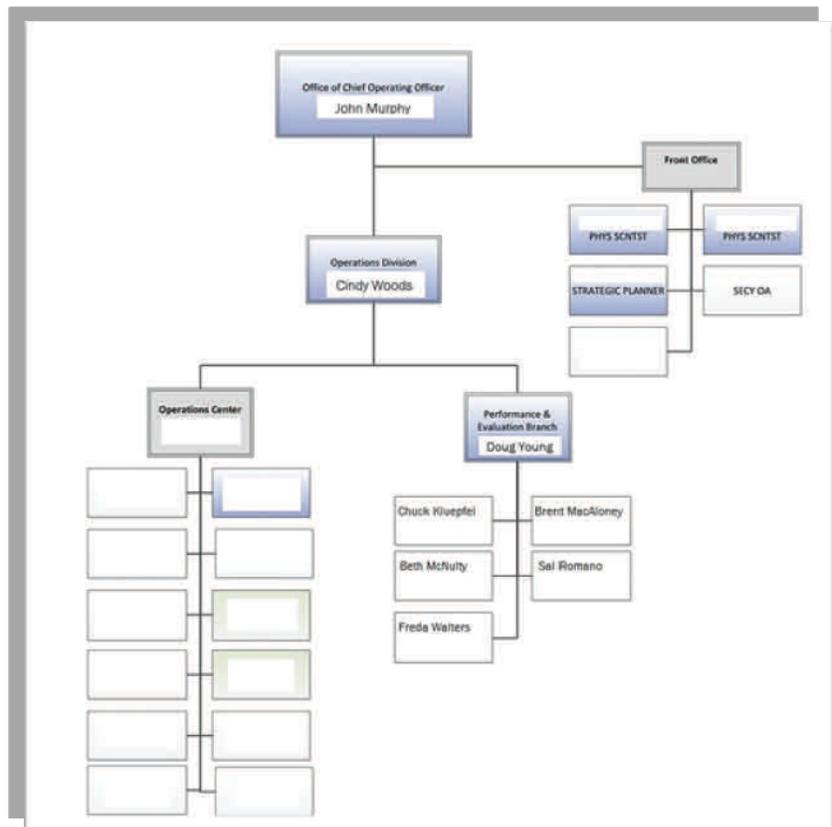


Figure 2. Office of the Chief Operating Officer, Front Office, and Operations Division.

Did You Know? "National Weather Service Headquarters Reorganization" – Continued from page 3

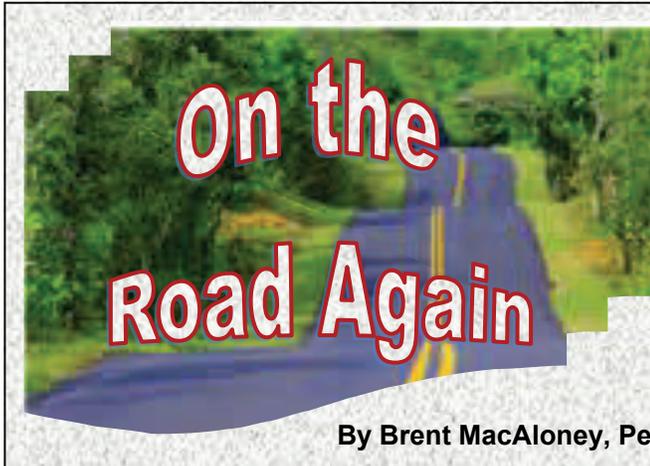
Performance and Evaluation Branch			
Name	Title	Phone #	Contact for Questions About...
Doug Young	Chief, Performance and Evaluation Branch	301.427.9312	All Performance and Evaluation information including GPRA, service assessments, and customer satisfaction surveys
Chuck Kluepfel	Verification Meteorologist	301.427.9304	All forecast verification with an emphasis in Aviation, Marine, Public; verification requirements
Brent MacAloney	Warning Verification Meteorologist	301.427.9301	Warning verification, Storm Data, Performance Management website issues; NOES; warning verification requirements
Sal Romano	Evaluation Meteorologist	301.427.9332	Service Assessments, After-Action Reviews, Customer Satisfaction Surveys
Beth McNulty	Meteorologist	301.427.9300	Forensics, Quality Management Services (QMS), GPRA, Customer Satisfaction Surveys
Freda Walters	Program Analyst	301.427.9296	Peak Performance newsletter, Service Assessments with an emphasis on action-tracking and publications, verification trends, meetings and staff information

Figure 3: Phone numbers and primary areas of responsibility for the PEB staff members. ♦

Now You Know! If you have any questions, please don't hesitate to contact me.

301.427.9312

Douglas.Young@noaa.gov



"Over the years, the funding available for visiting these offices decreased and my visits to WFOs dwindled. Therefore, it was great to be back out in the field meeting with those who are on the front lines of saving lives and property."



By Brent MacAloney, Performance and Evaluation Branch, NWS Headquarters

These days it seems as if my work travel comes in surges. Over the last few months, January to March, I went on two trips that kept me on the road for 17 days and included visits to five different cities over three states. This was a great opportunity to hit the road again, see some new sights, visit some old friends, and make some new ones.

Phoenix, Arizona

The American Meteorological Society (AMS) Annual Meeting was held in Phoenix, AZ on January 4th through 8th of this year. After the cold East Coast weather, it was quite a treat to visit Arizona where I could go outside without a coat. This year's Annual Meeting was a solid learning experience.

The action started on Saturday morning January 3rd with the Teacher's Workshop. This is a workshop local teachers attend and learn about ways in which weather and Science, Technology, Engineering and Math (STEM) elements can be included in their curriculum. Having so many meteorology experts in the area for the Annual Meeting created a special opportunity to share information with local teachers. The NWS plays a large role in running this event and I am always glad to help. This year I helped run the event, as well as staff the NWS table at the Share-a-Thon, providing information on the extensive weather resources the NWS has to offer the teachers. It always pleases me hearing how much the

teachers enjoy teaching about meteorology and how they love the data the NWS provides so they can talk about weather events in real time.

Saturday evening brought the AMS Student Conference career fair. I had the pleasure of leading the effort to set up the NWS booth. This year we were fortunate to have three high profile and extremely engaging individuals at the table to speak with students about careers in the NWS. NWS Training Division Chief, Leroy Spayd, NWS Director, Dr. Louis Uccellini, and NWS Deputy Director, Laura Furgione were all able to spend some time talking to student attendees about the NWS. This was a great opportunity for the students to interact with NWS leadership and get an update on the NWS's current and future hiring plans. We are thankful to have people in leadership who see the value in engaging the next generations of NWS employees. Personally, I'm glad to have a hand in making this happen.

Sunday January 4th was an action packed day in which I worked the WeatherReady Nation (WRN) Boy Scout / Girl Scout event in the morning and WeatherFest in the afternoon. The WRN Scout event brings together local Boy Scouts and Girl Scouts to learn about weather and work towards earning a weather badge with their respective organizations. I serve on the organizing committee and had the pleasure of working with the event leads, Chrissy Warrilow from Weather.com

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On the Road Again – Continued from page 5

and Charlotte Dewey from WFO Phoenix. I really enjoyed seeing all the scouts interacting with the weather experts and learning about weather.

After the Scout event concluded, everyone headed to WeatherFest to enjoy the festivities there. WeatherFest is a large science fair, held in conjunction with the AMS Annual Meeting, which is free for anyone to attend. I have served on the WeatherFest organizing committee since 2007 and am glad to help out every year. With all the professionals in the weather enterprise gathered in the same location every year, this provides a rewarding, no-cost opportunity for families to come out and learn about weather and other scientific topics. If you ever attend a future AMS Annual Meeting, I highly recommend volunteering to help with this or the Boy Scout / Girls Scout event.

The rest of the week of the AMS Annual Meeting went well. I was able to hop around from presentation to presentation, gathering ideas on how the NWS can better measure performance and how people are using Storm Data. This provides me with an abundance of information on how we can do a better job developing tools for the field for the collection of storm data, as well as monitoring forecast and warning performance.

Oklahoma City, Oklahoma

Next, I visited Oklahoma City to attend the 2015 National Tornado Summit on February 24th and 25th. I always look forward to attending this summit, as it is a great opportunity to meet with and learn from those who work in insurance and emergency management worlds. I am always fascinated at how the roles of insurance adjusters and emergency managers are very much like the Warning Coordination Meteorologists in the NWS—not just from a damage assessment standpoint, but also through their outreach and education efforts.

My favorite presentation this year was from Thomas Brewer, GIS Specialist at the Mississippi Emergency Management Agency (MEMA). MEMA has a tool that is very similar to the NWS's Damage Assessment Toolkit (DAT), which is used to assign high-level damage assessments to homes and properties soon after an event. The MEMA employee with the mobile application will walk around an area impacted by a disaster and assign a value from minimal damage to catastrophic damage for each property impacted. All properties in the impacted area would be assessed in this way, including those properties with no damage. Seeing this presentation got me thinking that the underlying database would be of significant use to the NWS for the purpose of Storm Data. For example, if the NWS could get an output from this system that would show a property by property assessment of the level of damage, this could be used by the Storm Data Focal Point to define the storm's area of impact. I will be contacting Mr. Brewer and any of his colleagues in other states to see if this information would be available to the NWS.

Norman, Oklahoma

After the National Tornado Summit, I headed 20 miles south to the National Weather Center in Norman. I had a whole slew of meetings set up to discuss the future of the verification program and gather requirements for the modernized StormDat program.

On Thursday, February 26th, I spent the morning with the NWS's Severe Weather Program Manager, John Ferree discussing ways we can make the Local Storm Report (LSR) policy more closely resemble what is collected in Storm Data. By doing this, we can ensure the NWS's preliminary and official event reports are better aligned, resulting in data that is easier for the users to understand. It will also reduce

On the Road Again – Continued from Page 6

confusion with those at the WFOs who are responsible for issuing LSRs and logging Storm Data.

During the afternoon of February 26th, I was able to meet with representatives from the Storm Prediction Center (SPC) and National Severe Storms Laboratory (NSSL) regarding requirements for a modernized StormDat program. One of the highlights of this meeting was resolving how hail and thunderstorm wind reports and their swaths should be logged in Storm Data. Previously, it has been difficult for everyone to agree on exactly how these reports should be logged. After much discussion, I believe we came to a consensus that in the new program, all hail and thunderstorm wind reports will be entered as individual reports. However, if there are enough individual reports in an area to suggest that a hail or thunderstorm wind swath was present, the user may link the reports by outlining an area representing a swath. On page 11 of this spring issue of Peak Performance, you will find an article outlining the modernized Stormdat program. More information will be provided in future newsletter articles.

On Friday, February 27th, I spent the morning with the staff of the Norman WFO. The discussion was mainly focused on requirements for the modernized StormDat program. Fortunately, the high-level requirements I outlined in a short presentation and the requirements discussed the previous day with SPC and NSSL employees, were aligned with where the WFO staff wanted to see the StormDat program head.

During the afternoon of February 27th, I had two meetings. The first was with Dr. Joe Ripberger, Deputy Director for Research at the Oklahoma University Center for Risk and Crisis Management. Joe and I met at the AMS Annual Meeting in Phoenix after his *“What Matters and How Much? Assessing the Relative Influence of Physical and Social Forces on Tornado Warning*

System Performance” presentation. Joe is a user of the NWS’s verification data and Storm Data. He wanted to discuss ways in which we could modify Storm Data and the NWS’s performance data to better assist with his analysis. One of the topics that came up was classifying convective reports in Storm Data by parent storm type, such as super-cell, pulse, Quasi Linear Convective Systems (QLCS), tropical, etc. This is a Storm Data request I have heard from users repeatedly and I am eager to help get it implemented.

After meeting with Dr. Ripberger, I met with NSSL Deputy Director, Lans Rothfusz and others regarding the verification element of the *Forecasting a Continuum of Environmental Threats (FACETs)* concept. Whenever new warning or forecasting concepts are being developed, a measurement of success or performance is often overlooked. Luckily, the Performance and Evaluation Branch has established a good working relationship with Lans over the years and he was sure to include verification as the 7th element of FACETs. We discussed ways in which we could help verify this new warning concept and how a modernized StormDat program would play a large part in this. Although it was a relatively short meeting, it was good to reaffirm the need to include the Performance and Evaluation Branch in any discussions on making the FACETs concept operational.

Amarillo, Texas

After a long and snowy drive that brought me from Norman to northern Texas, I was able to sit down with the staff at WFO Amarillo to discuss all things Performance Management on Monday, March 2nd. Back when I traveled more often, I would regularly make visits to various forecast offices, training the staff on topics such as verification, Storm Data, and evaluation. Over the years, the funding available for visiting these offices decreased and my visits to WFOs

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dwindled. Therefore, it was great to be back out in the field meeting with those who are on the front lines of saving lives and property.

This visit was fun, not only from a freezing fog (Figure 1) standpoint (something I saw plenty of while out there), but because I was able to talk about the modernized StormDat program requirements with staff from a second WFO. It was great to see that the staff from WFO Norman and WFO Amarillo were in agreement with the proposed requirements for a modernized program.

The Amarillo office is in the process of undergoing some personnel changes, losing their Science Operations Office (SOO) and Warning Coordination Meteorologist (WCM) to other offices, so it was great meeting with Meteorologist in Charge (MIC) Jose Garcia and his staff to train them on the verification, storm data, and outreach reporting areas typically monitored and covered by the SOO and WCM.



Figure 1: Close up view of the hoar frost at Palo Duro Canyon State Park in Canyon, TX on March 1, 2015.

To close the day, Jose and WCM Krissy Hurley took me out to the Big Texan Steak Ranch. Although I didn't take part in the world famous 72-ounce steak challenge, I enjoyed checking the place out, taking some pictures (Figure 2), and learning about Amarillo from the locals. The staff here at Amarillo is bright, works hard, and does a great job serving their customers (something I saw firsthand with all of the hazardous weather occurring while I was visiting). During the training session, they showed a lot of interest and asked great questions. I was

thankful to all of them for making my visit to Amarillo such a memorable one.



Figure 2: Brent MacAloney (L) with Amarillo WCM Krissy Hurley (C) and MIC Jose Garcia (R) in the big chair at the Big Texan Steak Ranch.

Fort Worth, Texas

The last stop on this whirlwind tour was to Southern Region Headquarters on the afternoon of Tuesday, March 3rd and morning of Wednesday, March 4th. Back when I traveled more often, I would visit each of the NWS's Regional HQs every two years. This allowed me the opportunity to brief them on what was going on in the Performance Branch (now Performance and Evaluation Branch), but also to listen to any of their concerns and needs.

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On this visit, I was joined by Performance and Evaluation Branch Chief, Doug Young, and we were able to brief the SRH employees on the future of verification, sharing parts the draft Performance and Evaluation Revitalization Plan that we were in the process of developing. I was also able to brief them on the modernized Storm Data program. We were able to have a great discussion and gather some excellent feedback on both topics. This helped us realize that we were all on the same page and moving in the right direction with the needs of SRH.

The best part of this visit was being able to get an overview of the SR Regional Operation Center (ROC) from Jennifer McNatt. It was interesting to see the role they play in interacting with the WFOs and NWS Headquarters, as well as the services they provide to external customers. I believe the services these ROCs provide will play a huge part in the future of the NWS and the SR ROC is at the forefront of defining the role of the ROCs.

Overall, both of these trips were very worthwhile, but exhausting. It reminded me that I still need to do my best to continue to get out to the field offices and regional headquarters for these types of interactions. Visiting the field and having these interactions helps us keep up with the ever-changing services they provide and the tools / support required to help them continuously monitor their performance.

As always, I hope your travels, whether they are personal or business related, will be safe and fun.

Until next time, cheers! ♦



Spring 2015 Peak Performance Newsletter Quotes

Change

“You never change things by fighting the existing reality. To change something, build a new model that makes the existing model obsolete.”

— R. Buckminster Fuller (Architect, author, designer, and inventor)

If you don't like something, change it. If you can't change it, change your attitude.

— Maya Angelou (Poet and award-winning author)

status of Service Assessment Actions - April 2015

- Currently, there are 444 total actions from Open Events.
- 353 actions are closed; 91 actions remain open.
- Currently, there are no activated service assessment teams/new events.

Open Service Assessments

- | | |
|---|--|
| <p>⇒ Colorado Flooding of September 11-17, 2013
Released June 24, 2014
26 Total Actions, 5 (19%) Closed Actions
21 (81%) Open Actions</p> <p>⇒ May 2013 Oklahoma Tornadoes and Flash Flooding
Released March 21, 2014
29 Total Actions, 15 (52%) Closed Actions
14 (48%) Open Actions</p> <p>⇒ Hurricane and Post-Tropical Cyclone Sandy
Released May 5, 2013
25 Total Actions, 13 (52%) Closed Actions
12 (48%) Open Actions</p> <p>⇒ Historic Derecho of June 29, 2012
Released February 05, 2013
14 Total Actions, 4 (29%) Closed Actions
10 (71%) Open Actions</p> <p>⇒ Hurricane Irene in August 2011
Released October 05, 2012
94 Total Actions, 77 (82%) Closed Actions
17 (18%) Open Actions</p> <p>⇒ The Missouri/Souris River Floods of May – August 2011 (Regional Service Assessment)
Released June 05, 2012
29 Total Actions, 22 (76%) Closed Actions
7 (24%) Open Actions</p> | <p>⇒ May 22, 2011 Joplin Tornado (Regional Service Assessment)
Released September 20, 2011
16 Total Actions, 14 (88%) Closed Actions
2 (12%) Open Actions</p> <p>⇒ Spring 2011 Mississippi River Floods
Released April 11, 2012
31 Total Actions, 26 (84%) Closed Actions
5 (16%) Open Actions</p> <p>⇒ The Historic Tornado Outbreaks of April 2011
Released December 19, 2011
32 Total Actions, 31 (97%) Closed Actions
1 (3%) Open Actions</p> <p>⇒ Record Floods of Greater Nashville: Including Flooding in Middle Tennessee and Western Kentucky, May 1-4, 2010
Released January 12, 2011
17 Total Actions, 16 (94%) Closed Actions
1(6%) Open Action</p> <p>⇒ South Pacific Basin Tsunami of September 29-30, 2009
Released June 04, 2010
131 Total Actions, 130 (99%) Closed Actions
1 (1%) Open Action</p> |
|---|--|

Closed Events (all actions completed)

- | | |
|---|---|
| <ul style="list-style-type: none"> • Remnants of Tropical Storm Lee and the Susquehanna River Basin Flooding of September 6-10, 2011 (Regional Service Assessment)
Released July 26, 2012
11 Total Actions - Closed • Washington, D.C. High-Impact, Convective Winter Weather Event of January 26, 2011
Released April 01, 2011
6 Total Actions - Closed • Southeast US Flooding of September 18-23, 2009
Released May 28, 2010
29 Total Actions - Closed • Mount Redoubt Eruptions of March - April 2009
Released March 23, 2010
17 Total Actions - Closed | <ul style="list-style-type: none"> • Central US Flooding of June 2008
Released February 03, 2010
34 Total Actions - Closed • Mother's Day Weekend Tornadoes of May 10, 2008
Released November 06, 2009
17 Total Actions - Closed • Super Tuesday Tornado Outbreak of February 5-6, 2008
Released March 02, 2009
17 Total Actions - Closed ♦ |
|---|---|

StormDat Program Modernization Update

By Brent MacAloney, NWS Headquarters

Several years ago, in a previous Peak Performance newsletter, I wrote about the future of the StormDat program. At that time, we had some requirements in place and were beginning to work on a prototype that would eventually become the next-generation StormDat program.

Unfortunately, we were unable to acquire the database upgrade needed to fully develop and deploy a modernized program. The core of the program needed to be Geographic Information Systems (GIS) based and the database we had at the time had no native GIS capabilities native to it.

Fast forward five years to 2014. The Structured Query Language (SQL) database that we had was no longer going to be supported by Microsoft, so we had no choice but to upgrade to the latest version. Finally, we received the funding to purchase the database we needed to move forward with a modernized StormDat program. Since it had been 4 or 5 years since we last developed a prototype, we could not just go with the requirements as they were when we collected them in 2010. Therefore, another round of requirements gathering needed to take place. Here are three high level requirements of the next StormDat program.

High Resolution Convective Weather Event Logging

The current StormDat program is limiting in how convective weather events are entered. For example, a tornado traveling through three counties needs to be broken up into three separate county-based segments. Each segment is only given a beginning and ending

location. When the event is plotted, it looks as if the tornado traveled in a straight line, even though it is likely this is not the case.

The new program will allow the county-boundary crossing tornado to be entered into the database as they actually occurred. The requirement to break the tornado up into county-based segments will be gone. However, for those users who need the events still broken up into county-based segments, the database will automatically, with no additional work to the Storm Data Focal Points (SDFP), use shapefiles to define which counties were impacted based on the path drawn.

Those offices using the Damage Assessment Toolkit (DAT) for damage surveys will be pleased to hear the events surveyed will be automatically imported into the new StormDat program. Events in the DAT program will appear in an overlay with the option to import the record directly into Storm Data.

Also, along the path of the storm, SDFPs will have the ability to enter damage, fatality, and injury information, along with photographic evidence geotagged at the location of occurrence. For tornado events, entry of the storm's width and intensity along the track will also be an option.

Outlining Impact Area for Non-Convective Events

For events such as Winter Storms, High Winds, and Drought, SDFPs are currently required to enter in a single event for each zone impacted.

[Continued on next page...](#)

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StormDat Program Modernization Update – Continued from page 11

If an office has a widespread or repeated event occurring across most of their zones, entry of these events can quickly become a very tedious task that takes hours to complete.

The new program will allow these events to be drawn as they occurred within the bounds of a County Warning Area (CWA). For those users who still require events broken up into zone-based segments, the database will automatically (no additional work to the SDFP) use shapefiles to define which zones were impacted based on the area drawn.

Information Overlays to Assist With Event Entry

Since the new StormDat program will be GIS-intensive, one of the features we want to add to the program to assist SDFPs with event entry is the ability to overlay additional data georeferenced sources. Eventually, we would like to make the following data overlays available in

StormDat to assist in determining the location and timing of when events occurred: standard GIS information layers (e.g., counties, cities, roads), tracks from events surveyed and entered into the DAT program, Local Storm Reports (LSR), radar scans, satellite, rotational track product output, Maximum Expected Size of Hail (MESH) tracks, and plots of local SKYWARN spotters (if available).

Webinar About New Program Requirements

Above are just a few brief examples of where the modernized StormDat program is headed. If you are interested in learning more about the modernized StormDat requirements, there will be an information webinar discussing this topic on Tuesday, May 12, 2015 at 3:00 pm EDT.

To register for this webinar, please go to:
<https://attendee.gotowebinar.com/register/360484048933689601> ♦



**Please consider contributing
to our next issue of
Peak Performance -
Summer 2015 Edition
Articles due on
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Contributors
to this
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