



The NHWC Transmission

August 2015

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Information Sharing Through the Use of Esri Story Maps

Jayme Laber, NWS

I would venture to say that when most of us think about Geographic Information Systems (GIS), we think about a map or layers of information spatially rendered on a map. Some of us may even think about GIS as a tool to assist us with spatial analysis of data.

Did you think about using maps to tell a story?

Well that is exactly where Esri has gone with its most recent GIS software offerings within ArcGIS Online (AGOL). AGOL allows a user to combine their data with data from Esri and other ArcGIS users to create maps. Ready-to-use base maps, tools, templates, and datasets make it easy to design and publish maps. One of these ready-to-use features is Story Maps.

Esri Story Maps are lightweight open-source web apps that use geography as a means of organizing and presenting information. They tell the story of a place, event, issue, trend, or pattern in a geographic context. They also allow a user to combine interactive maps with additional content like text, photos, video, and audio that tell stories about the world.

They are simple to create and have proven to be an extremely effective tool to convey the National Weather Service's (NWS) stories of weather, water, and climate. The NWS Weather Forecast Office in Los Angeles/Oxnard California has developed a series of story maps that are being used for internal operational support, training, outreach, and

NWS National Weather Service Los Angeles/Oxnard

Camarillo Springs, California Heavy Rain, Flash Flooding, and Debris Flow Event December 11-12, 2014

Web Cam Image from San Camilo Lane in the Camarillo Springs area of Camarillo, CA taken at 2:35 am PST, December 12, 2014. The debris flow came down the slope on the left side of the photo, and continued on to San Camilo Lane. The web cam image is courtesy of the Ventura County Sheriff's Office of Emergency Services.

The Doppler radar video to the right shows a heavy band of rainfall moving across the Oxnard Plain through the cities of Oxnard, Port Hueneme, and Camarillo CA in the early morning hours of December 12, 2014 between the hours of approximately 12:45 AM and 2:30 AM PST. The red, yellow, and green colors indicate areas of rainfall. Green is generally lighter rainfall, yellow is moderate rainfall, and red is heavier rainfall.

Esri Story Map for Camarillo Springs, California Heavy Rain, Flash Flooding, and Debris Flow Event, December 11-12, 2014

enhanced situational awareness as well as an avenue to present weather forecasts, observations, and information to the public.

Esri Story Maps also lend themselves perfectly for use by the NWS as a post storm survey and documentation tool in conjunction with current in-place methodologies.

Being the Hydrologist at the NWS Weather Forecast Office in Los Angeles/Oxnard California and the sole creator of story map content for the office at this point, the majority of our current story maps have a connection to hydrology. Currently I have created several story maps that provide a summary of past flood and flash flood events, a story map that describes the implementation of a real-time distributed hydrology model in ungaged semi-arid basins, one that displays the location of and describes historic and current wildfires in and around the Los Angeles area, a story map that

shows the location of NWS river forecast points in Southern California, one that provides a summary of Southern California drought conditions as of the fall of 2014, and a story map that compares two different US Drought Monitor Maps using a swipe feature.

I have had suggestions from our forecast staff for several additional story maps that will help communicate information both to our internal staff and to the public. Look for those to be published in the near future.

To view the current NWS Weather Forecast Office Los Angeles/Oxnard California interactive story maps, visit <http://go.usa.gov/3W53x>.

To see additional Esri Story Maps created by others and to get inspiration for your own story maps, visit <http://storymaps.arcgis.com/en/gallery/>.

Trust, Credibility and Confidence Lead to Success in Social Media

Greg Romano, NWS

Back when telephones were still a novelty, the Party Line was a lower cost alternative to private lines for many city dwellers and often the only way rural residents could get phone service. Often parodied in popular culture, the Party Line was as useful for sharing important emergency information between neighbors as it was for its entertainment value. Technology has greatly surpassed the Party Line, but in many ways today's social media space isn't much different, although the potential reach is quite a bit larger. It is no surprise, then, that social media has become an effective means for sharing potentially life-saving weather, water, and climate information.

Like the Party Lines of old, a social media network is comprised of people who share common interests. They may be friends, family, coworkers, or even friends of friends. Posts, Tweets and other messages are ways to share information, news and ideas. Information can be shared within or outside one's social media circle. But what and who should be believed? It is a basic tenet of risk communications that the message sender must be a trusted source with credibility, whose message is received with confidence. If someone posts something disagreeable, the receiver can ignore, delete and even disassociate entirely. Of course, the real beauty of social media is that as credible information is shared by trustworthy sources, the circle of confidence gets wider and wider.

That is the environment in which the National Weather Service is using social media to get the word out. Those who "like" our national and local Facebook pages (more than four million) and follow us on Twitter (more than two million across all NWS accounts) believe we are a trustworthy source and the information we provide is credible. That they re-share our information with their own social media circles →



ensures that people are getting the information they need -- and on which they can **act** -- from a credible source.

The power of social media as a tool in risk communication became clear in the hours and days following the June 16, 2015 landfall of Tropical Storm Bill in Texas. The potential for significant rain and resulting flooding were the primary impacts forecasters expected from this storm. As the storm approached the coast, NWS national and regional social media focal points coordinated messaging, making sure to focus on language that highlighted the storm's flood risks, particularly the potential for flash flooding and aggravation of river flooding over a several-day period.



This impact-focused infographic posted on Facebook by the National Weather Service Southern Region was the region's most successful post, reaching 108,300 people and garnering 899 likes, 447 shares and 165 comments.

The NWS Southern Region led this effort, garnering more than 300,000 Twitter impressions over the four-day period starting June 15, with the top three [Tweets](#) alone garnering more than 100,000 impressions. Facebook posts reached upwards of 320,000 people.

Both national- and regional-level Facebook posts and Tweets featured infographics that highlighted these risks, along with the key "Turn Around, Don't Drown" message to drivers. History has shown that too many people underestimate the power of just a few inches of water

over a flooded roadway, leading to drownings and dangerous swift water rescues as cars are swept downstream. A recently-produced [animation](#) highlighting this danger went viral, garnering more than 1.4 million views on the national NWS Facebook page alone.

The Texas Hill Country was particularly impacted by devastating floods. NWS San Antonio used social media very effectively during the storm to highlight these dangers. One of the office's Facebook posts, a [video summary](#) posted immediately after landfall, reached 413,000 people. During those four days in June, the office netted 1,069 new followers on Facebook, bringing their total to 15,800.

Throughout the event, other NWS Weather

Forecast Offices, River Forecast Centers and NWS Headquarters were providing their own posts and tweets, amplifying through shares and retweets of messages from other offices, and posting links to [safety information](#) on NWS websites. Tweets from the NWS national account garnered nearly 224,000 impressions, 347 retweets and 168 favorites, while national Facebook

posts reached nearly 240,000 with 187 comments and 622 shares.

The NWS continues to bolster its social media presence and strategy. We are showing growth in Facebook and Twitter exposure after large weather events, while we also explore new social media avenues, such as Instagram. Social media is already an incredibly viable and valuable medium for public risk communication, with instant credibility granted with user-to-user sharing. Its ability to spur action in the face of more impactful weather, water and climate threats will undoubtedly save lives. 🌧️

**Comment Period for
the latest ALERT2
Technical
Specification
NOW OPEN!**

(Comment period closes
August 24th, 2015)

The ALERT2 Technical Working Group (TWG) has published a proposed final version (V 1.1) of the *ALERT2 Intelligent Network Device Application Program Interface Specification*. It is available on the NHC website for public review and comment through August 24, 2015. Click [here](#) to download the document.

Please direct any comments or suggestions to David Haynes, ALERT2 TWG Chair, at: david.haynes@distinctiveafwsdesigns.com

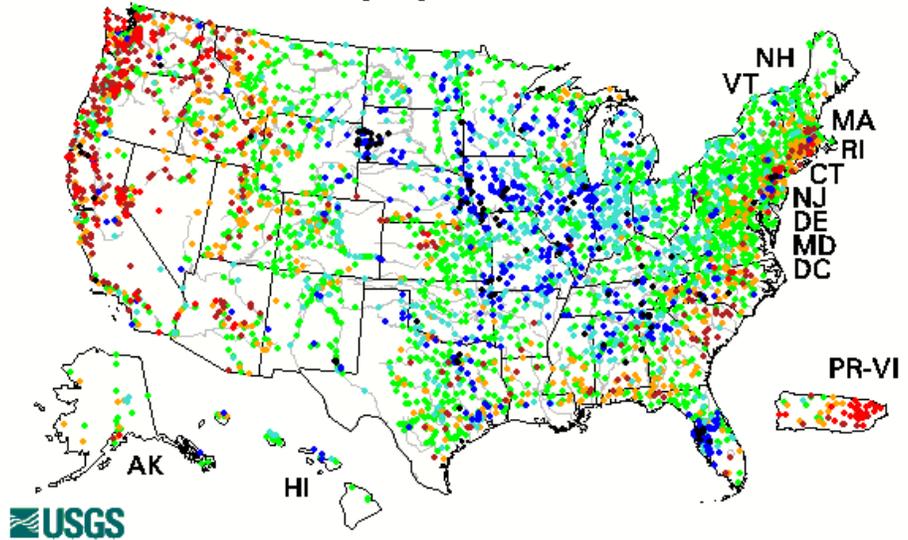
**Attention
Certified
Floodplain
Managers**

If you attended the June 15-18 NHC Conference, you are eligible to claim 12 core continuing education credits from the Association of State Floodplain Managers.

To properly record your CECs, follow this [link](#) to the form which you can fill out and send to ASFPM.

**Hydrologic Conditions in the United States
Through August 19, 2015**

Mesnesday, August 19, 2015 22:30ET

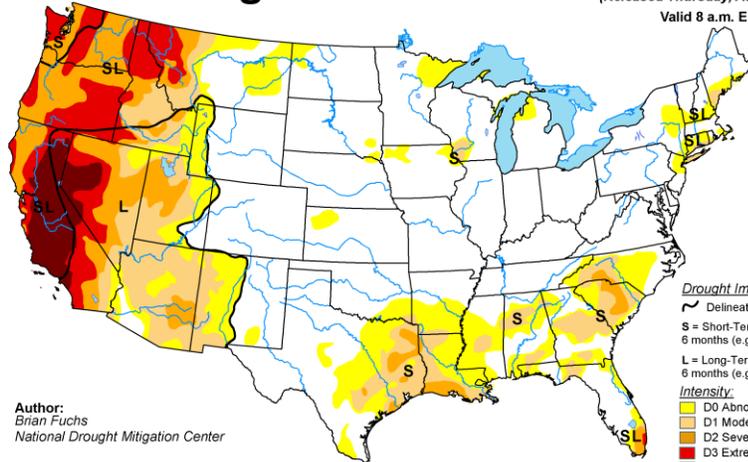


Explanation - Percentile classes						
●	●	●	●	●	●	
Low	<10 Much below normal	10-24 Below normal	25-75 Normal	76-90 Above normal	>90 Much above normal	High

Latest stream flow conditions in the United States. (courtesy USGS)

U.S. Drought Monitor

August 11, 2015
(Released Thursday, Aug. 13, 2015)
Valid 8 a.m. EDT

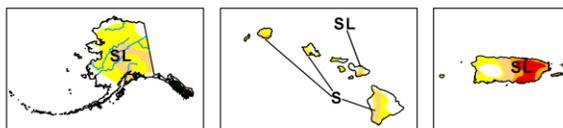


Author:
Brian Fuchs
National Drought Mitigation Center

Drought Impact Types:
~ Delineates dominant impacts
S = Short-Term, typically less than 6 months (e.g. agriculture, grasslands)
L = Long-Term, typically greater than 6 months (e.g. hydrology, ecology)

Intensity:
D0 Abnormally Dry
D1 Moderate Drought
D2 Severe Drought
D3 Extreme Drought
D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.



USDA
National Drought Mitigation Center
<http://droughtmonitor.unl.edu/>

**Latest drought conditions in the United States.
(courtesy National Drought Mitigation Center)**

September Newsletter Articles Focus: Modeling & Analysis

The NHWC is requesting articles that focus on practices, technologies and tools used to model, predict and analyze hydro-meteorological events and to support decision making for emergency response and floodplain management.

Submit your article to:

editor@hydrologicwarning.org

September 4th is the deadline for inclusion in the September issue.

Future Newsletter Articles Focus

To give you more time to prepare articles, below is the article focus schedule for the next four months:

Sep - Modeling/Analysis
Oct - Data Collection
Nov - Hydrology
Dec - Hazard Communication & Public Awareness

NHWC Calendar

October 28-29, 2015 - [7th Annual Texas Workshop Spring 2015 Floods](#), Austin, Texas

November 4-5, 2015 - NHWC Advanced Flood Warning Workshop, Albany, New York

General Interest Calendar

September 2-4, 2015 - [Texas Floodplain Management Association Fall Technical Summit](#), Houston, Texas

September 13-17, 2015 - [ASDSO Dam Safety 2015](#), New Orleans, Louisiana

November 4-6, 2015 – [Arizona Floodplain Management Association Fall 2015 Conference](#), Safford, Arizona

April 18-22, 2016 - [ALERT Users Group Training Symposium and Preparedness Workshop](#), Tenaya Lodge at Yosemite National Park, California

(see the [event calendar](#) on the NHWC website for more information)

Parting Shot

35 Years and Counting



Folsom Dam – Folsom Point (Dyke 8) is one of the oldest ALERT weather stations in California. It was installed circa 1979 by the National Weather Service. Data from this station may be viewed at the following [link](#).

Photo by David Curtis, WEST Consultants, Inc.

National Hydrologic Warning Council

Providing Timely, Quality Hydrologic Information to Protect Lives, Property, and the Environment

<http://www.hydrologicwarning.org>