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The Coastal Breeze

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A Weather-Ready Nation, a Weather-Ready Valley

By Barry S. Goldsmith, Warning Coordination Meteorologist

Few residents from the Mississippi Valley to the Deep South will forget the weather of 2011. Violent tornadoes and record floods damaged billions of dollars in property. Most memorable – and heartbreaking – were the hundreds of dead and thousands of severely injured Americans, and the scenes of overwhelmed families and communities who struggled to pick up the pieces and rebuild. The question asked by impacted residents was, “Why us?” The question asked by meteorologists across the weather enterprise was more difficult: “How could this happen – now?” After all, we’re in an age where technological advances in weather radar and atmospheric modeling can combine with forecasters armed with knowledge and experience, to allow more than 30 minutes advance notice to communities prior to the arrival of a violent tornado. Still, though, more people were killed by tornadoes in 2011 (549) than at any time since 1917.

Enter [Weather Ready Nation.](#)



Why Here, Why Now?

Dangerous weather has been a fact of American life ever since the nation’s founding. Our unique geography allows warm, humid air masses from the Gulf of Mexico and Caribbean Sea to interact with drier or cooler air from the high peaks of the Rockies/Sierra Madre (Mexico) and Canada, to result in the potential for high impact weather events. A nation of 75 million people living in cities, small towns, and farms and concentrated in the Midwest and Northeast at the turn of the 20th century grew to a nation of nearly 313 million in early 2012, with more than 37 percent growth in the South since 1970 (U.S. Census, 2010; Figure 1). The South is also the region with the most tornadoes, freshwater floods, and catastrophic hurricanes.

In response to the extensive and increasing cost to life and treasure from hazardous weather and with a population more at risk than ever (Figure 2), the National Weather Service has embarked on a vision to build an America more resilient to hazardous weather and water events in the 21st century. The Weather Ready Nation initiative changes the paradigm of local, regional, and national offices to focus on meteorological and societal decision support for high impact weather and climate events. Building relationships beyond the “emergency management and media” prototype to include stakeholders across the spectrum – from public health,

A WEATHER-READY NATION, A WEATHER-READY VALLEY (CONTINUED)

education, and transportation to large corporations and even religious organizations – is imperative to its success. New technologies, such as social media websites will enable NWS employees to engage a growing number of weather-dependent communities. By reaching more people directly through open communication, NWS can teach the importance of hazardous weather awareness and preparedness, and learn from these communities by listening to their ideas, then implementing the best ideas to improve services. Combining scientific expertise with societal sensitivity may be the key to saving lives and reducing economic impact even for nature's most violent weather.

Weather Ready Rio Grande Valley?

Unique challenges face the south Texas border region. Significant, life threatening weather occurs rarely. The Valley is known for mild to warm winters, breezy warm springs and autumns, and hot, humid summers. Rain and thunderstorms are rare compared with other parts of the Gulf Coast. When hazardous weather occurs, it can strike hard. Hurricane Beulah, Hurricane Allen, killing freezes in the 1980s, the April 2003 hailstorm, Hurricane Dolly, and the February 2011 ice storm are a few of the significant events that raked the Valley since 1960.

Unfortunately, complacency likely sets in from the infrequency of significant events. This can lead to decreased understanding and appreciation for the power of nature. Culturally, the Valley includes a mix of English- and Spanish-speaking residents. Beyond the obvious language differences, there are other challenges in how native Mexicans, migrants, and longtime residents interpret hazardous weather messages. Demographically, Valley populations are among the poorest of 275 metropolitan statistical areas, with high rates of diabetes and obesity which limit the ability to move to safety.

The NWS in Brownsville stands ready to take on these challenges to build a Weather Ready Rio Grande Valley. We will continue to educate and inform our community through:

- Dozens of outreach events
- Distribution of the Texas Hurricane Guide at every Walmart store
- Breaking News graphic and text updates on our website
- Event emails and webinars to our partners
- Real-time decision support using NWSChat, Facebook, telephone, or onsite deployment
- Participating in hazardous weather/materials exercises
- School visits and office tours

A WEATHER-READY NATION, A WEATHER-READY VALLEY (CONTINUED)

Some things planned for 2012 and beyond include:

- Daily multimedia web briefings
- Spanish language spotter training
- More Spanish language preparedness and safety web pages
- Spanish language significant event summaries
- Twitter

Excluding rip and alongshore currents, there have been only a handful of deaths and a few dozen injuries from weather related hazards across the Rio Grande Valley since 1950. We strive to keep these values low, reduce the number of deaths from rip currents, and lower the economic impact associated with significant weather. The next Beulah, Dolly, or hailstorm is only a matter of time, and more people will be impacted as the population continues to surge. Becoming Weather Ready will ensure a prepared, resilient Valley for this generation and those to follow.

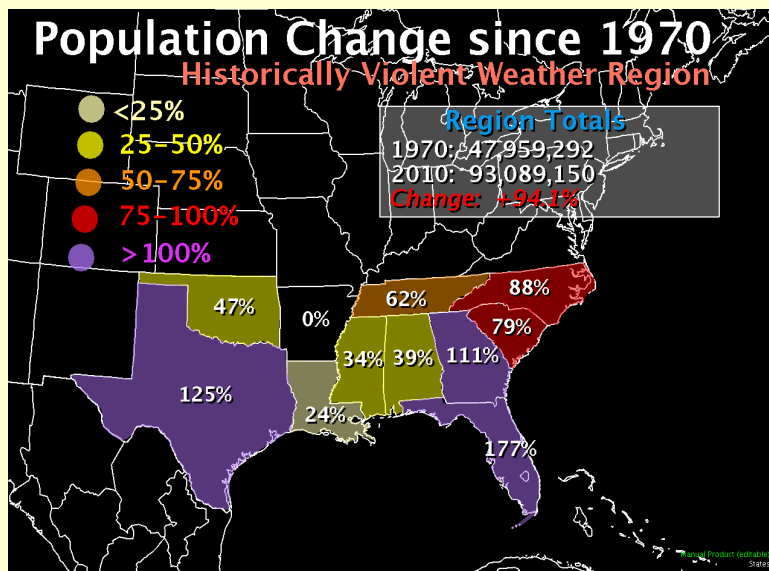
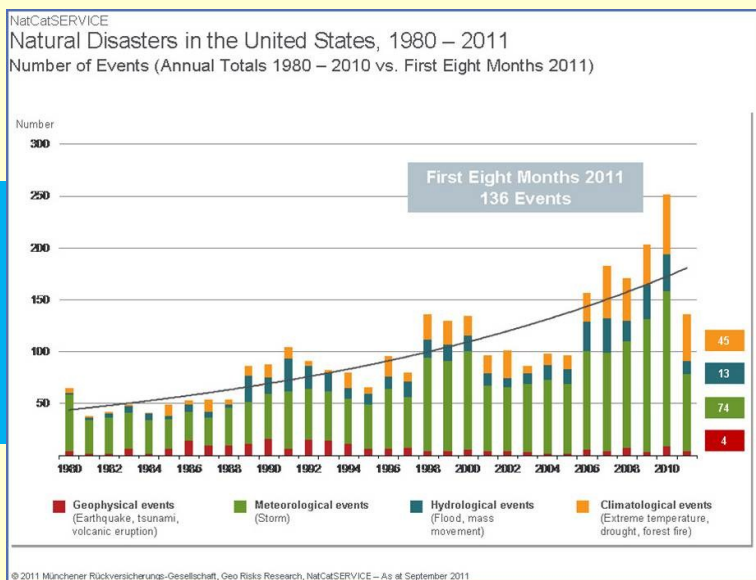


Figure 1. (Left) U.S. Census data for the most violent weather region (tornadoes, hurricanes, and floods combined), showing population change since 1970. The South had the greatest numerical increase of all U.S. regions during the period.

Figure 2. (Right) Increase in number of natural disaster events since 1980. The near exponential increase in meteorological events (green bar) better correlates to a similar increase in population across the South, where most of the violent weather (hurricanes, tornadoes, and floods) occurs.



RIO GRANDE VALLEY SKYWARN

By Joseph Tomaselli, General Forecaster

Now that the holidays are over, and spring is right around the corner, it's time to start thinking about severe weather!

Every year, severe thunderstorms - producing large hail, damaging winds, tornadoes, and flash flooding - move across the Rio Grande Valley and Deep South Texas. Fortunately, your National Weather Service office in Brownsville employs highly-trained meteorologists that use the latest technology to detect severe weather and issue warnings to the public. Believe it or not, part of this modern technology includes "eyes on the sky" in the form of trained SKYWARN[®] spotters who observe and report severe weather to the National Weather Service office in Brownsville!



SKYWARN[®] is a nationwide, volunteer program with over 300,000 members. Since the program started in the 1970s, the information provided by SKYWARN[®] spotters, combined with Doppler radar technology, satellite imagery, and other data, has enabled meteorologists with the National Weather Service to issue more timely and accurate warnings for tornadoes, flash floods, damaging winds, and large hail.

Amateur radio (Ham) operators, fire and police department personnel, Winter Texans, Customs and Border Patrol agents, emergency medical and public utility workers, ranchers, and private citizens make up the majority of trained SKYWARN[®] spotters within our region.

SKYWARN[®] classes will be held across our region in February and March to train new spotters, as well as give veteran spotters the opportunity to refresh their skills. These classes are free of charge, and normally run about 2 hours or so, including time for questions and a brief, open-book quiz. Attendees will receive a Spotters Field Guide and other brochures upon arrival. Upon successfully completing the course and quiz, newly-trained SKYWARN[®] spotters will receive a welcome letter, a certificate of completion, an identification card, and a bumper sticker. If you are interested in participating in this fun and worthwhile public service opportunity, please contact

Warning Coordination Meteorologist Barry Goldsmith at 956-504-1631 Extension 223 or Barry.Goldsmith@noaa.gov, or SKYWARN[®] Training Coordinator Joseph Tomaselli at Joseph.Tomaselli@noaa.gov. We hope to see you at a future class!



Figure 3. (Right)
Joseph Tomaselli at a SKYWARN[®] presentation

MULTIMEDIA WEATHER BRIEFING – A NEW WAY TO CONVEY THE VALLEY’S WEATHER

By Geoffrey Bogorad, Senior Forecaster

The National Weather Service (NWS) in Brownsville is moving steadily ahead in developing and initiating an internet-accessible Multimedia Weather Briefing. This daily briefing, produced by NWS meteorologists, will provide information concerning hazardous weather events within Deep South Texas and the Rio Grande Valley. The briefing will also provide additional support for the planning activities of emergency response partners and customers by conveying the forecaster’s reasoning and confidence (in non-technical terms) concerning any upcoming hazardous weather events.

The Multimedia Weather Briefing will serve our community by communicating both graphically and verbally the potential weather hazards and the general daily weather affecting the Rio Grande Valley and the rest of Deep South Texas. The briefing will be an important tool that can be used by emergency managers, first responders, media, local and state officials, law enforcement, school districts, SKYWARN[®] spotters and the general public to make decisions needed to save lives and protect property. The briefing will provide general information concerning the location, timing and expected magnitude of impacts which might affect these entities.

The briefing can be found on our website at www.weather.gov/rgv by scrolling down to the icon depicting our office (Fig. 4). It will also be available on Facebook, so go ahead and friend us to get your daily dose of weather information. Look for it by early March.

Figure 4. (Below) Home screen Multimedia Briefing .



ANNUAL SKYWARN® RECOGNITION DAY A BIG SUCCESS

By Brian Miller, Senior Forecaster

On December 3 2011, NWS Brownsville/Rio Grande Valley hosted SKYWARN® Recognition Day (SRD). SRD, co-sponsored by the American Radio Relay League and the National Weather Service (NWS), is an annual event that recognizes amateur radio operators (Hams) for the vital public service they perform when reporting severe weather. The fun-filled day allows Hams to operate at their local NWS office, making contact with other operators, including other NWS offices. Successful contacts (QSLs) involve exchanging current weather conditions at both sites, and offices are recognized for the number of contacts made.



Local Ham Patrick Robertson participates in SRD at NWS Brownsville.



Mike and Bobbie Bourne take their turn during SRD.

The National Weather Service in Brownsville has been participating in SRD since 2001, and this year Hams operating from our call sign, WX5BRO, made nearly 30 QSLs across the United States and overseas. High solar activity favored long distance (DX) transmission during the event, and stations in Fairbanks, AK (NWS Office) and Yokohama, Japan were reached! Local Hams included Patrick Patterson (N5SLI), Mike (KB0VWG) and Bobbi (KB5VWG) Bourne, and Dr. David Woolweaver (K5RAV). WX5BRO Hams included Brian Miller (KE5AWU) and Barry Goldsmith (KE5TRD).

In addition to participation by local Hams, we were honored to have Scoutmaster Kevin Campbell and several members of Boy Scout Troop 142 from Harlingen stop by to join the fun. In a two-for-one Saturday morning, the boy scouts worked on both their Ham Radio and Meteorology badges. Data Acquisition Program Manager Jim Campbell gave a very informative and well received power-point presentation, which was followed by a tour of the office.



NWS Forecaster Brian Miller (standing) joins Patrick Robertson at the Hams net control desk.

STAFF CHANGES AT YOUR NWS BROWNSVILLE

By Kirk Caceres, General Forecaster

The National Weather Service (NWS) in Brownsville, TX has seen the departure of three General Forecasters, the retirement of a Lead Forecaster, and the arrival of three new General Forecasters all in the past six months.

General Forecaster **Ryan Vipond**, accepted a position at NWS Aberdeen, SD in August 2010. In October 2010, General Forecaster **Ashley Butts**, left the NWS to welcome the birth of her son. General Forecaster **Dr. Buddy Martin**, accepted another position in Eureka, CA.

Greg Flatt began his National Weather Service career in early 1980 as a Meteorologist at NWS Salt Lake City, UT. He transferred to NWS Boise, ID in late 1980. In 1982, Greg was promoted to General Forecaster at NWS Brownsville. After eight years, he transferred to Vicksburg, MS, before returning to Brownsville in 1993 as a General Forecaster. In 2001, He was promoted to Lead Forecaster at NWS Lake Charles, LA, before returning again to Brownsville in 2002. Greg retired from Brownsville in December 2011. His plans are to remain in the Valley and spend time travelling, working on home improvement projects, and spending time with family.



Greg Flatt
Retired Senior Forecaster



Kirk Caceres
New General Forecaster

General Forecaster **Kirk Caceres** arrived to Brownsville in late October. A native of New Orleans, LA. Kirk became interested in meteorology in the 5th grade. Living on the northern Gulf Coast, his primary interests were thunderstorms and hurricanes. He began his career as a Student Career Experience Program (SCEP) in the New Orleans/Baton Rouge office in the mid-1990s. He attended the University of Louisiana in Monroe, LA then later moved to Alabama in 2000. Kirk earned a Bachelor's degree at the University of South Alabama in Mobile, AL, in 2004. In 2005, he accepted an Meteorologist Intern position at the NWS in Williston, ND, before returning to the Gulf Coast as an Intern at the NWS office in Mobile, AL. Kirk gained plenty

of experience as he was involved with several big weather events over the past 6 years at Mobile.

He enjoys travelling, mountain biking, hiking, and camping. When Kirk is not working, he will likely be on the beach on South Padre Island.

STAFF CHANGES AT YOUR NWS BROWNSVILLE (CONTINUED)



Maria Torres
New General Forecaster

Maria Torres was born in San Juan, Puerto Rico and lived on the island for almost 13 years before her parents moved to South Florida. Maria did not know much English, so she enrolled into the English as a Second Language (ESL) program at the middle school she attended in Puerto Rico. During the time that Maria lived in Puerto Rico, she experienced several Tropical Storms and a lot of flash flooding events, but no severe thunderstorms. The most significant event was Hurricane Hugo in 1989, where intense winds damaged her home.

When she started school in Miami, she went through many severe weather drills, which were strange for her since she never had to do any of that in Puerto Rico. Miami was very different from Puerto Rico,

especially the lightning danger associated with severe thunderstorms. From that moment on, she was passionate about weather.

She attended Miami Dade College where she got her Associate Degree and started taking some Meteorology courses. Understanding the competitiveness of the National Weather Service, she was fortunate to be selected for the SCEP position at the NWS Miami office. She transferred to and earned her meteorology degree from Florida State University in Tallahassee, FL.

Once she graduated with her Bachelors of Science in Meteorology, she was offered a Meteorological Intern position at NWS Albuquerque. She expected "desert weather" to be "quiet and boring," but she experienced just the opposite. As one of the biggest forecast offices in the nation, she experienced many types of diverse weather which served is a great learning experience. Maria is excited about her promotion to the general forecaster position in Brownsville.



Justin Gibbs
New General Forecaster

Justin Gibbs is the office's newest forecaster. He joined the team from the Las Vegas, Nevada office. Prior to working in Las Vegas he worked for the Tennessee Emergency Management Agency. He earned his Master's degree in Emergency Management from Jacksonville State University, but spent his undergraduate days in Mobile, AL at the University of South Alabama where he obtained a Bachelor's Degree in Meteorology. Gibbs says he is glad to return to the Gulf coast.

His primary work related interests are severe weather and how the NWS can better serve the public. In his free time, you will probably catch him with his wife at the beach or exploring new places in the Valley.

Please join us in welcoming these new team members to the Rio Grande Valley!



The Coastal Breeze



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Science and Operations Officer *Doug Butts*

Warning Coordination Meteorologist *Barry Goldsmith*

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Barry Goldsmith	Warning Coordination Meteorologist		

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Location	Frequency [MHz]	Station
Brownsville	162.550	WWG-34
Pharr	162.400	KHB-33
Rio Grande City	162.425	WNG-601
Riviera (Programmed by NWS Corpus Christi)	162.525	WNG-609
Laredo (Programmed by NWS Corpus Christi)	162.550	WXK-26

NOAA Weather Radio in the Rio Grande Valley and Deep South Texas!

Be sure to "Like" us on Facebook!
<http://www.facebook.com/US.NationalWeatherService.Brownsville.gov>

