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# The Coastal Breeze

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### The 2014 Atlantic Hurricane Season Forecast:

#### A Near-Normal to Below-Normal Season Expected

By Barry Goldsmith, Warning Coordination Meteorologist

A near to below normal Atlantic Hurricane season is expected this year due to the anticipated development of El Niño this summer. El Niño causes wind conditions to become less favorable for the development of tropical systems which can lead to weaker and less frequent storms. With the 2014 season now underway, the [NOAA season forecast](#) is the following:

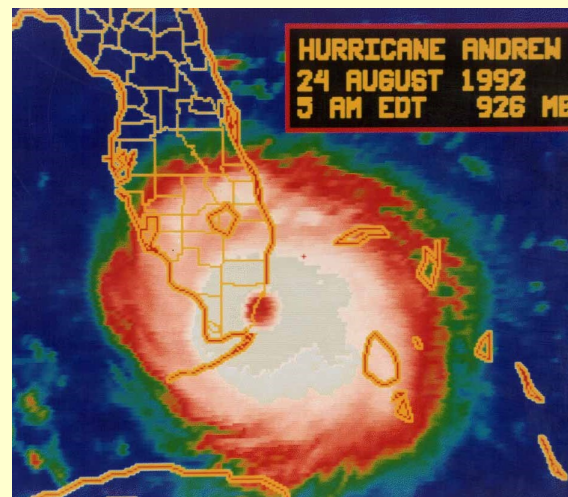
<i>Named Storms</i>	<i>Hurricanes</i>	<i>Major Hurricanes (Winds 111 MPH or greater)</i>
8-13	3-6	1-2

Basic statistics imply the higher the number of expected storms, the better the odds of an impact on any coastline. But is that strictly true? Consider 2011 and 2012 for the Texas coast. In both years, high pressure blocked almost every cyclone (or potential cyclone) from making impact in the Northwest Gulf of Mexico. Tropical Storm Don (2011) aside, not one tropical cyclone has come close to making landfall in Texas since 2010.

The setup for any hurricane season is a collection of atmospheric "puzzle pieces" (so-to-speak). These "pieces," which have noted climatological trends, range in size from global to regional. The interaction of these features determines whether tropical cyclones can be created, sustained, or destroyed. Predictability of some of these contributing factors is accurate only out to a few weeks at best.

The final answer of any hurricane season, busy or quiet, is unknown early in the season. By the numbers, 1992 was a "quiet season." However, for the residents of Miami-Dade County in South Florida, Hurricane Andrew will be forever etched in their minds. By contrast, the recent "active" 2010 season resulted in no direct U.S. hurricane landfalls. In short, the memory of whether a season is busy or quiet is always in the mind of those impacted.

For the RGV, you should keep a watchful eye on the potential for the next Beulah, Allen, or Dolly to affect our area. What's the bottom line? Regardless of the forecast, you need to have a plan when the next "big one" affects the RGV. Be sure to check out our preparedness tips on our [webpage](#).



**Above:** Satellite imagery of land falling Hurricane Andrew on the morning of August 24th 1992.

Photo courtesy of NOAA

## December 2013-February 2014 Rank Among Top 25 Coldest in the RGV

By Barry Goldsmith, Warning Coordination Meteorologist



**Above:** Glaze on an orange tree in Bayview on January 29, 2014.

Photo: Courtesy of Marcus Smith

The frequent combination of shallow, yet strong cold fronts with warm, humid airmasses overrunning the chilled surface created gray skies and periods of precipitation. These factors contributed to sleet on January 6, one Valley-wide ice storm on January 29 and light glaze ice coatings across the Deep South ranchlands of Brooks, Jim Hogg, northern Kenedy, eastern Zapata, and northern Starr Counties on February 6-7. Between November 22 and March 3, there were seven occasions where the temperature dropped more than 35°F between one day and the next. This is far more than in any late autumn-early spring in recent memory. Eleven cold fronts were followed by prolonged gray skies and/or light precipitation; far fewer fronts came through dry, which had been the expectation.

After a wet end to December, rainfall diminished in January and February. The combination of heavy rainfall to close December with the frequent cold, damp weather that followed seven times in January and February helped maintain moderate to high soil moisture, especially across the Rio Grande Valley.

Higher rainfall totals in December across the Valley resulted in an above average seasonal rainfall, as some areas received well over the average seasonal rainfall in just a week (December 25-31, 2013). Seasonal totals ranged from four to six inches in most of Cameron and four to seven inches in southern Hidalgo and southeastern Starr County, but fell back toward 2 to 3 inches (estimated) across most of the northern ranchlands from Kenedy to Zapata County. The combination of December rain and January/February moisture and frequent cold snaps removed severe and greater drought from the entire region by February.

**Below:** Snow covered sedan in the city of Zapata.

Photo: Courtesy of Tony Elizondo



## Cooler Winter Impacts Area Farmers

By Kirk Caceres, General Forecaster

Agriculture is a big industry in the RGV. To get a perspective on how the cold winter impacted area farmers, I spoke to Bud and Susanne Cooke who operate Acadia Farms in Bayview, Texas.

**Kirk:** “What were some of the impacts to the farm (veggies/equipment) that occurred this past winter?”

**Susanne:** “The cool, cloudy weather delayed many of the crops. Carrots took about a month longer to mature than normal. Boy Choy and arugula, both sensitive to extreme changes in temperature, bolted (flowered) instead of making vegetative growth because of wild fluctuations in the temperature (40's for a few days, then up to 70° or 80°).”

**Kirk:** “Any crop damage?”

**Susanne:** “Near freezing temperatures caused spotting on some of the salad crops. Cucumbers and squash developed severe powdery mildew due to the continued cloudy, damp weather. Cucumbers failed to set fruit. The bees were not as active, resulting in less fruit from lack of pollination. Soil temperatures were lower than 45°, delaying crop emergence.”

**Kirk:** “Any extra precautions needed?”

**Susanne:** “We ran overhead sprinklers on the nights that temperatures were predicted to be near freezing to protect the tender crops. Tender plants were placed under row covers to protect from cold and wind damage. The greenhouses ends and sides (usually rolled up for ventilation) were kept closed to protect crops from the cold and wind.”

**Kirk:** “How did the lack of rainfall last fall affect the farm this year?”

**Susanne:** “Some of the fig trees died because of excess rain collecting in low areas around the trees which caused the roots to rot. It wasn't lack of rainfall, it was excess rainfall! Grapefruit was stressed from lack of rain last spring and summer, and when heavy rains began in the fall, the trees flowered a second time causing more stress because of tons of green grapefruits on the trees at the wrong time of the year. These were removed by hand after the main crop was harvested.”

**Kirk:** “Any irrigation issues?”

**Susanne:** “We used less water this past winter and the resacas are full of water now because of winter rains.”

**Kirk:** “Any produce had to be delayed or not planted this year?”

**Susanne:** “Warm season crops like melons and okra were delayed because of the continued cold, dreary weather.”

**Kirk:** “How did this past winter compare to previous winters?”

**Susanne:** “No freezes, so it was a good winter as far as moderate temperatures go, but wish there had been a few more sunny days.”



**Above:** Acadia Farms in Bayview.

Photo courtesy of Kirk Caceres

## “Cold Stunned” Turtles

By Jim Campbell, Data Acquisition Program Manager

South Texas residents weren't the only ones affected by this winter's colder than normal temperatures. Resident Atlantic Green sea turtles were affected in the shallow waters of the Laguna Madre. Over 300 sea turtles were rendered immobile from Thanksgiving through March by hypothermia, a phenomenon also called “cold-stunning.” Thankfully, our own local sea turtle rehabilitation center, Sea Turtle Inc., on South Padre Island, was there to rehab and release many of the affected turtles.

Like all other reptiles, seas turtles are cold blooded. Simply put, they have no control over their body temperature; they assume the temperature of their surroundings. During the many cold outbreaks over this past winter, the shallow waters of the Laguna Madre cooled much faster than the deep Gulf waters. Any turtles that weren't able to make it to the deeper, warmer Gulf waters were cold-stunned when the bay waters dropped to 50° or colder.

Friends of the Laguna Madre braved the cold (and sometimes wind chills in the 20s) to walk the shore-lines in search of the hypothermic turtles. Unable to swim, north winds and tides typically pushed them to the southern shores. People with access to boats were asked to look for “floating cobblestones” and rescue any turtles that had their heads down and were unable to swim.

Sea Turtle Inc. rehabilitates 40 to 100 injured sea turtles in an average year. In addition to cold-stunning, turtles are treated for a wide variety of injuries including predator attacks, line and net entanglements, and boat strikes. The sheer number of turtles brought into the facility from late November through March attests to the severity of our winter, at least from nature's point of view. Without the helping hands of Sea Turtle Inc. and the many volunteers who braved the cold, the ultimate outcome would have been much worse for our flippered friends.

If you'd like to help Sea Turtle Inc. with their rescue efforts, visit them online at: [www.seaturtleinc.org](http://www.seaturtleinc.org).



**Above:** A turtle being rescued by Sea Turtle Inc.

Photo Courtesy of Seth Patterson

## Pancake Breakfast Supports Local Kids

By Joseph Tomaselli, Senior Forecaster

The Brownsville/Rio Grande Valley National Weather Service office recently supported Whataburger's annual All-You-Can-Eat Pancake Breakfast for charity. This year marked the fourth consecutive year in which office staff feasted on pancakes to help local students.



On Saturday, March 2, Steve Drillette, Joseph Tomaselli, and Maria Torres gathered at a local Whataburger to socialize and eat their fill of pancakes. Proceeds from this event benefit KRGV-TV's Teach the Children charity, which provides new clothing and school supplies for needy children entering the first grade each year.

"We've been participating in this event since 2011," said Joseph. "It has always been held in February or March, and munching on hot buttered and syrupy pancakes on a cold winter morning definitely hits the spot. Knowing that 100 percent of the money collected by Whataburger goes to help needy Valley kids makes our participation even more enjoyable."

**Above:** Senior Forecaster Joseph Tomaselli and General Forecaster Maria Torres stuffed after a couple of servings of pancakes

**Below:** Meteorologist-in-Charge Steve Drillette, General Forecaster Maria Torres and her son feasting on pancakes

Photos courtesy of Steve Drillette and Omar Torres



## The First Annual National Weather Service Women in Science Trip

By Maria Torres, General Forecaster

The first annual National Weather Service Women in Science trip was held April 4<sup>th</sup> through 7<sup>th</sup> in Windsor, CA. This trip was organized by forecaster Christine Riley from the Monterey, CA office. The women, some of whom came from cold winter climates, were excited to come to “much warmer” California for the weekend. None were disappointed, as daytime high temperatures were in the 80s.

The women traveled from all over the United States, as far east as New York, and as far south as Texas, and as far north as Colorado. In all, seven states in the Western, Central, Southern, and Eastern regions of the NWS were represented. The attendees held a vast spectrum of positions in the NWS, ranging from entry-level positions to management. These women represented all facets of the NWS, including women from Warning Forecast Offices, Center Weather Service Units, as well as River Forecast Centers.

The trip provided an opportunity to exchange stories and ideas about each person’s respective career in the National Weather Service. The women discussed how they first got into the NWS, the different offices they have worked in, and helped each other with resumes and interview questions. This trip came at a perfect time, as many of the ladies were either actively applying for or anticipating future job vacancies in the agency. The younger women were able to get career advice from the women who had been in the NWS for ten or more years, and were provided information on how to navigate personal and professional goals. One fun fact from the weekend: both Cindy Elsenheimer and Jamie Meier are new mothers and this was their first vacation away from their little ones!

In an effort to keep the costs down, Cynthia Palmer and Stefanie Sullivan organized a menu and prepared every meal in-house, incorporating specific dietetic needs of every attendee. At the end of the trip, Cindy Elsenheimer, from the Center Weather Service Unit in Atlanta, gathered the surplus food and water and dropped it off at the Windsor Service Alliance, an all-volunteer, non-profit organization dedicated to meeting the human needs of the Windsor Community.

Everyone is looking forward to the trip next year. This trip is one that will be remembered for a lifetime and all of the ladies hope that the number of participants increases each year!



**Above:** (Back– left to right) Jamie Meier, Christine Riley, Michelle Franzen Mead, Cynthia Palmer, Pamela Varney Murray, Suzanne Sims, Brooke Bingaman, Lisa Reed Kriederman. (Front-left to right) Maria Margarita Torres, Cindy Elsenheimer, Ashley Helmetag, Stefanie Sullivan, Edan Lindaman Weishahn, and Melissa DiSpigna.

Photo Courtesy of Sbragia Family Vineyards



# The Coastal Breeze



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Brownsville	162.550	WWG-34
Pharr	162.400	KHB-33
Rio Grande City	162.425	WNG-601
Riviera	162.525	WNG-609
Laredo	162.550	WXK-26

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

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