

## Størm Signals

Houston/Galveston National Weather Service Office

Volume 77 Spring 2008





## Farewell But See You Soon Bill Read, MIC, Houston Galveston WFO

It is hard to believe that it has been 16 years since I came to this place as the Meteorologist in Charge (MIC) of the Houston Galveston Area National Weather Service Office. Over the first week, many people congratulated me on achieving a dream of a life time by being selected as the Director of the National Hurricane Center. However, my "dream of a lifetime" job since I was an Intern reporting to San Antonio in 1978 was to be an MIC of a Weather Forecast Office. The last 16 years have lived up to that dream, mainly due to the great people I have had the fortune to share the office with

and those of you in the community that share our goal of saving lives and protecting property. For this "farewell address" (cheesy, huh), I thought I'd touch on some of the significant events we all went through together during my tenure.

Back in January 1992, the job at hand was ramping up a new staff while the nation's 5<sup>th</sup> NEXRAD was being installed in our backyard. This was the first step in the modernization of the National Weather Service, and intensive training and operational team building was the norm. The first year provided a number of eye openers, starting with a rare March flood event that filled I-10... the first such event but not the last as we found out! The radar came on line in April, and on Easter Sunday a supercell thunderstorm chunked baseball to softball size hail. Most significant was the November 21<sup>st</sup> tornado outbreak when 17 tornadoes occurred over a 5 hour period, including an F4 event in Channelview. Miraculously, no one died in this event. The next memorable event was the October 1994 flood. The area encompassed by 10 inches or greater rainfall exceeded the area of South Carolina. In our area, several locations received over 25 inches of rain, and the resulting flood was devastating on the San Jacinto and Trinity River basins.

The office saw a lot of turnover in the mid 90s as our original staff promoted to new offices coming up as we had. By 1997, the next phase of the modernization was underway resulting in more staff and greater responsibility. Since completing the transition in the late 90s, staff turnover has been more gradual, as many of us called the Houston area home and were happy with our lot. A process that began at the encouragement of Galveston County in 1998 came to fruition in 2005 with the building of a hurricane resistant Emergency Management Facility and collocation of the Forecast Office with OEM. This first in the nation achievement has and will continue to provide unique opportunities to improve warning services to our citizens.

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While I derive satisfaction out of any hazardous weather event forecast well, what really winds my clock are the tropical events. We experienced a number of storms with varying impacts and memories. TS Frances is the first one I recall vividly as a huge circulation that would not move, resulting in tidal flooding normally seen in a high end category 1 hurricane. Of course, we had the usual rainwater flooding on some of our bayous. TS Allison will have to be the event that will remain the most awesome of disasters I have had the privilege of working. I will never forget the feeling we all had late that Friday night when much of Houston was experiencing severe flooding and we were fearing great loss of life. Allison also showed where NWS, Emergency Management, and the media can do a great job when all working together focused on the problem at hand. Hurricanes Lili and Claudette gave us a scare. Then there was Katrina and Rita and the problems we humans had that made them catastrophes. More than any other events, these two history altering disasters left me itching to "Do Something".

Rarely do we get an opportunity to take on a position that gives us a chance to "Do Something" on a large scale. When Max Mayfield called me September 28, 2006 and said "I want you to have my job," I knew right away this was just that opportunity. Although I will be leaving as your MIC, we will work together in the future, through helping in the preparedness mission and during the inevitable storms to come.

Thanks all of you for your support and encouraging words over the years. Bye Bye!



## 2003 Houston/Calveston Hurricane Workshop to be held on June 7th







The 2008 Houston/Galveston Hurricane Workshop, the largest free public event of its kind, will take place on June  $7^{th}$  from 10 a.m. until 4 pm at the George R. Brown Convention Center. The theme of the 2008 workshop will once again be Ready or Not . . . as we continue to stress that everyone must always be prepared for a major hurricane visiting our region of the Gulf Coast.

Focused on providing families with the information they need as hurricane season begins, the event has grown each year and will likely draw more then 1,200 attendees in 2008. During the workshop, Bill Read, the Director of the National Hurricane Center, will give an update on recent improvements in hurricane forecasting and what the 2008 Hurricane Season has in store for Texas. Also, local Emergency Management experts will be on hand to explain the latest plans for hurricane preparedness along the upper Texas coast.

The popular kids' area will once again feature interactive learning activities. Kids will learn about tropical cyclones and how to prepare for an approaching hurricane through a fun, educational experience that teaches them to respect, but not fear, these strong storms.

There will also be a number of vendors on hand displaying items related to hurricane preparedness. Many items will also be given away on a first-come, first-served basis, such as hurricane tracking charts, tip sheets, a comprehensive booklet on hurricanes from the National Weather Service, as well as other vendor-provided items.

The 2008 Hurricane Workshop is once again being sponsored by CenterPoint Energy, the City of Houston and the National Weather Service. Harris County Office of Emergency Management, Interfaith Ministries, and the Weather Museum are also active participants in making this a successful educational event. The workshop is free and open to the public. Updates on the event program and registration information can be found prior to the event on the web at:

hurricaneworkshop.com





# Schedule your Hurricane Talks now!

The Houston/Galveston National Weather Service Office offers our very informative and very popular hurricane presentations to schools, businesses and organizations. These talks include details on the dangers of tropical storms and hurricanes, the history of activity along the Upper Texas coast and ways to protect your life and property during a tropical threat. Brochures on hurricanes can also be made available to all attendees.

If you are interested in having a meteorologist come to you and talk about hurricanes, please contact Gene Hafele (gene. hafele@noaa.gov) or Joshua Lichter (joshua.lichter@noaa.gov) at (281)337-5074. The more you know about tropical storms and hurricanes, the better you will be prepared to survive when the next one strikes.



### Culf Coast Hurricane Awareness P-3 Tour

On Tuesday, April 15th, NOAA's P-3 Hurricane Hunter Aircraft will visit Galveston Scholes Field. This will be the second day of a five day tour of the Gulf Coast for the P-3 Hurricane Hunter Aircraft. Onboard the plane will be the new Director of the National Hurricane Center, Director of the Southern Region of the National Weather Service, representatives from FEMA and of course the crew of the P-3 aircraft. The purpose of the Hurricane Awareness Tour is to raise awareness of hurricanes and their dangers along the Gulf of Mexico.

During the day, the P-3 aircraft will be the focus of tours by 5<sup>th</sup> grade students from area elementary schools. Over 500 5<sup>th</sup> grade students will each spend approximately 1.5 hours at Scholes Field learning about hurricanes from local NWS meteorologists, touring static displays set up by the Red Cross and local Emergency Management and of course touring the P-3 Hurricane Hunter Aircraft. Following the tours by the students, the P-3 aircraft will be available for tours by the local news media, local emergency management officials and also elected officials from the Houston/Galveston region. The aircraft will be open to the public for tours from approximately 3pm to 5pm.

During the day, local Emergency Management Officials will have the opportunity to listen to the officials from the National Hurricane Center and FEMA concerning hurricane forecasting and hurricane preparedness. These officials will also be available to the local media for interviews for their midday or evening news programs.



This is an excellent opportunity for over 500 students that live in a very hurricane prone community to learn how storms are observed and how these observations are put into the forecasts that are issued by the National Hurricane Center. These students will also learn how Red Cross and local Emergency Management are always preparing for the possibility of a hurricane visiting the Houston/Galveston region. For additional information about the P-3 Hurricane Hunter Aircraft, please visit the following website:

www.publicaffairs.noaa.gov/grounders/hurricanehunters.html

## Southeast Texas Skywarn



As southeast Texas residents, we are all well aware that severe weather can occur every month of the year. However, statistically, most of the severe weather episodes occur in the springtime months of March, April, and May. Another peak time for severe weather is the months of October and November. Is your town, county, or community properly prepared to handle a severe weather outbreak? One of the ways you and those around you can be better prepared is to become more aware of these violent storms. Our office hosts SKYWARN training sessions preceding spring's severe weather season with the goal of educating the public to be safe, informative storm spotters.

#### What is SKYWARN?

SKYWARN is a program sponsored by your local National Weather Service Office to train you and your neighbors to be storm spotters. When the threat for severe weather arises, these trained spotters will watch the skies and report important weather information back to their local emergency manager's office, law enforcement agency, or National Weather Service Office. This information is vital in aiding the forecaster's decision process in warning local citizens and schools of severe weather. Your information is also utilized by the National Weather Service to enhance the warning program.

#### Who can be a Storm Spotter?

Anyone who has the interest in helping their community can be a spotter. Folks who make good spotters are generally people who have an interest in weather and the safety of their fellow man or woman in mind. In the past, people from all walks of life have attended our sessions with the highest representation being those who work in the law enforcement, firefighting, or EMT fields. There are always a few amateur radio operators in the audience, as well! The key is good communication. It is important to relay your reports as quickly as possible to the local authorities or weather service office.

#### How do you become a trained spotter?

SKYWARN training classes take place throughout southeast Texas from late winter through early spring, generally from early February through mid April. Classes last between two to three hours and are usually given during the evening hours or on Saturdays. Each participant receives a certificate and additional informational materials to further enhance their severe weather understanding. How and what types of information to report are also discussed during our time together. If you are interested in helping the National Weather Service by becoming a trained SKYWARN spotter, please plan on attending one of our early 2008 training sessions. You can check out our website for the times and locations of upcoming SKYWARN classes.

If you are an emergency manager, sheriff, or other public official and are interested in scheduling a SKYWARN class, please contact the Houston/Galveston National Weather Service Office at (281)337-5074. This coming season's class schedule, which will be continuously updated throughout the spring months, will be posted on the web at:

www.srh.noaa.gov/hgx/severe/skywarn/schedule08.htm

#### COMMUNITY COLLABORATIVE RAIN, HAIL & SNOW NETWORK

"Because every drop counts"

#### ABOUT COCORAHS

CoCoRaHS is a grassroots volunteer network of backyard weather observers of all ages and backgrounds working together to measure and map precipitation (rain, hail and snow) in their local communities. By using low-cost measurement tools, stressing training and education, and utilizing an interactive Web-site, our aim is to provide the highest quality data for natural resource, education and research applications. The only requirements to join are an enthusiasm for watching and reporting weather conditions and a desire to learn more about how weather can effect and impact our lives.

Our Web page provides the ability for our observers to see their observations mapped out in "real time". as well as providing a wealth of information for our data users.

CoCoRaHS began in Colorado and has expanded to cover most of the country. In just a few months, nearly one thousand volunteers have joined the network in Texas.

You can be a part of the CocoRaHS network and provide a valuable service to your community. Joining is as easy as visiting the web site at: www.cocorahs.org Check it out!





**TEXAS COCORAHS** 

## American Meteorology Society - Houston Chapter Preview: 2007 - 2008 Season

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The goal of being the nation's top chapter through providing cutting-edge scientific information & community involvement

This season, our local chapter continues the commitment of providing the highest standard of scientific education through cutting-edge meteorological topics, presented by the nation's experts, which affect us in southeast Texas. Anyone who has attended one of our meetings can attest to the fact that we bring in knowledgeable professionals to discuss the most pertinent and important topics within the science;

from whether global warming is directly affecting hurricane frequency to what the weather will be like tomorrow....on Mars! So, since there will always be a great meeting to look forward to every month, we look forward to seeing you at one of our upcoming meetings!

If you have been unable to attend, or simply didn't know our chapter existed, here is a recap of this past season's meetings up to this point

- The logistics behind the Hurricane Center/ National Weather Service/Emergency Management's mission of
  protecting life and property in these post-Rita times. (Presenters: Mr. Lance Wood from the National Weather
  Service & Mr. John Simsen, Galveston County's Emergency Manager.)
- · We visited ABC-Channel 13's studios to meet one of our local area chiefs, Mr. Tim Heller.
- Mr. Tim Oram, senior forecaster for NASA's Spaceflight Meteorology Group, provided us with a very interesting lightning presentation. His talk included such topics as "triggered lightning" (when an aircraft or a space vehicle create their own lightning flash), common lightning detection systems, and a description of the science behind the physical processes associated with the lightning flash.

Here are the remaining scheduled meetings:

- Air Pollution forecasting
- · Tour of NOAA's P-3 Hurricane Research Aircraft
- · Guest Speaker from the National Hurricane Center

For those who are not yet members, we would like to extend an invitation to all interested in meteorology to highly-consider becoming a part of our exciting local American Meteorological Society Chapter. If you are interested in becoming a member, please feel free to contact us at these e-mails, so we can place you on our monthly e-newsletter list:

President: Anthony Yanez (ayanez@kprc.com)

<u>Vice-President</u>: Patrick Blood (patrick.blood@noaa.gov)
<u>Secretary</u>: Dorri Breher (dbreher@impactweather.com)
<u>Treasurer</u>: Brain Plantz (brian.planz@wilkensweather.com)

Have a great year and we look forward to seeing you at the next meeting or event!



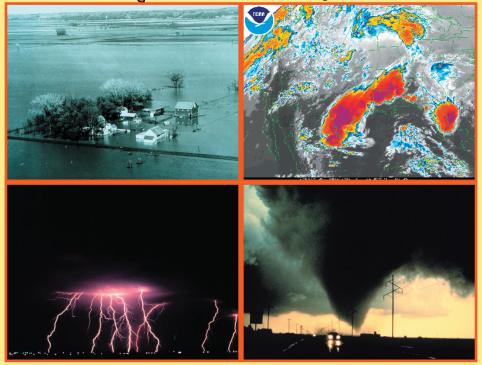
## 2008 Houston International Boat Show



The 2008 Houston International Boat Show was held at the Reliant Center from January 4th through January 13th. Similar to the past several years, NWS Houston/Galveston hosted a booth to hand out weather safety brochures, tide tables, cloud charts, etc. Considering average attendance of nearly 150,000 visitors for the last several years, this was a great opportunity for the Houston/Galveston NWS staff to meet with the marine community as they passed by. We enjoyed your comments and suggestions. Our booth had an internet connection which allowed us to show off the latest and greatest links off our homepage at: <a href="https://www.srh.noaa.gov/hgx">www.srh.noaa.gov/hgx</a>

### Severe Weather Awareness Week February 24 - March 1, 2003





During Severe Weather Awareness Week, the National Weather Service in coordination with the Texas Division of Emergency Management and the Insurance Information Institute will highlight various aspects of severe weather. Newspapers, broadcast media, safety organizations, and other local government officials are encouraged to work with their communities to disseminate severe weather awareness information to prepare them for the upcoming severe weather season. This information is designed to serve as a guide to the dangers of severe weather and its impacts on southeast Texas, and to serve as a guide to community groups around southeast Texas. It is important to remember that severe weather can occur in any month of the year in southeast Texas.

During each day of Severe Weather Awareness Week, special information is available from the National Weather Service to further emphasize important information about severe weather and the National Weather Service job in warning the public.

#### Sunday, February 24

Introduction to Severe Weather Awareness Week
National Weather Service Watch/Warning System and Terms

#### Monday, February 25

NOAA Weather Radio - Your Personal All-Hazards Warning System Damaging Winds and Hail

#### Tuesday, February 26

Drought and Fire Weather Tornadoes and Tornado Safety

#### Wednesday, February 27

Lightning Facts and the Safety Rules Weather Safety for Mariners

#### Thursday, February 28

Turn Around...Don't Drown
The Dangers of Flash Flooding

#### Friday, February 29

Amateur Radio and Storm Spotters

Reporting Severe Weather to the National Weather Service - Phone Numbers and Websites



### Flood Safety Awareness Week March 17-21, 2008

Flooding is a coast to coast threat to the United States and its territories in all months of the year. Flood Safety Awareness Week is intended to highlight some of the many ways floods can occur, the hazards associated with floods, and what you can do to save life and property. Important information on the following topics is available on the website at: 

#### www.floodsafety.noaa.gov

#### Advanced Hydrologic Prediction Services (AHPS) - Monday, March 17

AHPS is the National Weather Service's ongoing effort to modernize National Weather Service hydrologic services. AHPS provides improved river and flood forecasts and water information across America to protect life and property and ensure the Nation's well-being. 

#### Turn Around Don't Drown (TADD) - Tuesday, March 18

TADD is a NOAA National Weather Service campaign to warn people of the hazards of walking or driving a vehicle through flood waters.

#### Floods, Droughts and other Related Phenomenon - Wednesday, March 19

Tropical Cyclone Inland Flooding, the leading cause of Southeast Texas fatalities in the past ten years, is covered here. 

### Flood Insurance - Thursday, March 20

Do you need flood insurance? How do you get it?

Flood Safety - Friday, March 21 How can you and your family stay safe in a flood.









## Hurricane Preparedness Week May 25-31, 2003

Tropical Storm Erin and Hurricane Humberto are our most recent reminders of the threat that tropical cyclones pose for our area. Erin made landfall along the central Texas coast last August around Port Aransas as a weak tropical storm and caused significant flooding in and around the Houston area. Humberto made landfall along the upper Texas coast last September just east of High Island as a rapidly intensifying Category 1 hurricane and produced wind damage across the High Island area and far eastern Chambers County. Hurricane Rita from 2005 is still on the minds of many Southeast Texans. Many of us will never forget the devastation left by Tropical Storm Allison in 2001. This year will mark the 25th anniversary of Hurricane Alicia, the last major hurricane to strike Southeast Texas.

It is never too early to prepare for the start of the 2008 Hurricane Season set to begin on June 1st. In an effort to assist your preparation, Hurricane Preparedness Week will be held May 25-31. During each day of this week, information will be released by the National Hurricane Center and the National Weather Service which will cover a wide range of topics including...

Hurricane History (Sunday, May 25) - Information on the formation of tropical storms and hurricanes, tropical cyclone stages, the Saffir-Simpson Hurricane Scale, upcoming hurricane names and an extensive list of tropical cyclones of the past.

Storm Surge and Marine Safety (Monday, May 26) - Information on storm surge, which has the greatest potential for loss of life related to a hurricane, and marine safety, which is needed as more merchant, fishing, and recreational sailors take to the sea.

High Winds and Tornadoes (Tuesday, May 27) - Information on hurricane force winds, including high wind safety actions for both before hurricane season begins and when a tropical cyclone approaches, and tornadoes, which add to the cyclone's destructive power.

Inland Flooding (Wednesday, May 28) - Information on inland flooding, which in the 1970's, '80s and '90s was responsible for more than half of the deaths associated with tropical cyclones in the United States.

Forecast Process (Thursday, May 29) - Information on procedures the National Hurricane Center and the National Weather Service take to notify emergency managers, decision makers and the public of any tropical cyclone threat.

Be Prepared (Friday, May 30) - Information on disaster preparation and ways to prepare yourself, your business and your family before the arrival of the next tropical cyclone.

Take Action (Saturday, May 31) - Information on what you should do before hurricane season starts and when watches and/or warnings are issued.

The Houston/Galveston National Weather Service Office highly recommends everyone read the releases during Hurricane Preparedness Week. More information on Hurricane Preparedness Week is available on the internet at:

www.nhc.noaa.gov/HAW2/english/intro.shtml

# Lightning Safety Awareness Week June 22-28, 2008



In the United States, there are an estimated 25 million lightning flashes each year. During the past 30 years, lightning killed an average of 62 people per year. This ties the average of 62 deaths per year caused by tornadoes. Yet because lightning usually claims only one or two victims at a time and does not cause mass destruction of property, it is underrated as a risk. While documented lightning injuries in the United States average about 300 per year, undocumented injuries are likely much higher.

Lightning strike survivors often suffer from a variety of long-term, debilitating symptoms, including memory loss, attention deficits, sleep disorders, numbness, dizziness, stiffness in joints, irritability, fatigue, weakness, muscle spasms, depression, and an inability to sit for long.

The following is some basic information about lightning and lightning safety.

Lightning Safety Awareness: An Educational Program. Few people really understand the dangers of lightning. Many people don't act to protect their lives, property and the lives of others promptly because they don't understand all the dangers associated with thunderstorms and lightning. The first step in solving this problem is to educate people so that they become aware of the behavior that puts them at risk of being struck by lightning, and to let them know what they can do to reduce that risk. Coaches and other adults who make decisions affecting the safety of children must understand the dangers of lightning.

Watch for Developing Thunderstorms. Thunderstorms are most likely to develop on spring or summer days but can occur year round. As the sun heats the air, pockets of warmer air start to rise and cumulus clouds form. Continued heating can cause these clouds to grow vertically into towering cumulus clouds, often the first sign of a developing thunderstorm.

An Approaching Thunderstorm: When to Seek Safe Shelter: Lightning can strike as far as 10 miles from an area where it is raining. That's about the distance you can hear thunder. If you can hear thunder, you are within striking distance. Seek safe shelter immediately!

**Outdoor Activities: Minimize the Risk of Being Struck:** Most lightning deaths and injuries occur in the summer. Where organized outdoor sports activities take place, coaches, camp counselors and other adults must stop activities at the first roar of thunder to ensure everyone time to get to a large building or enclosed vehicle. Leaders of outdoor events should have a written plan that all staff are aware of and enforce.

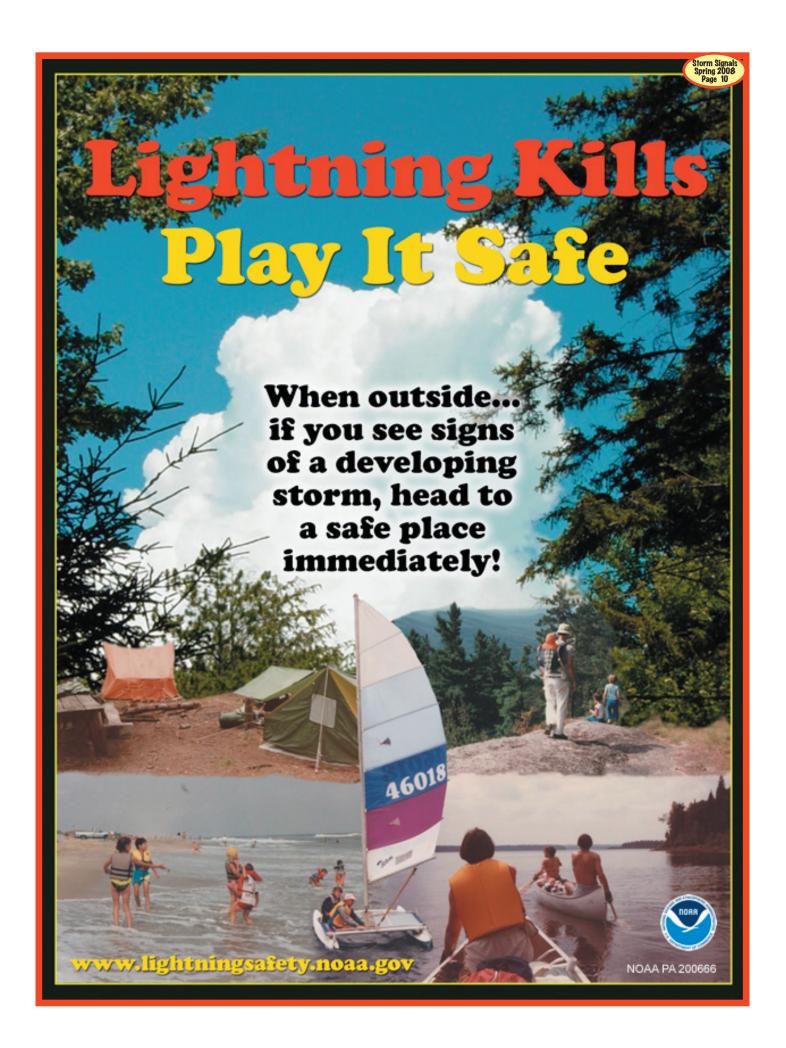
Indoor Activities: Things to Avoid: Inside buildings, stay off corded phones, computers and other electrical equipment that put you in direct contact with electricity. Stay away from pools, indoor or outdoor, tubs, showers and other plumbing. Buy surge suppressors for key equipment. Install ground fault protectors on circuits near water or outdoors. When inside, wait 30 minutes after the last strike, before going out again.

Helping a Lightning Strike Victim: If a person is struck by lightning, call 911 and get medical care immediately. Cardiac arrest and irregularities, burns, and nerve damage are common in cases where people are struck by lightning. However, with proper treatment, including CPR if necessary, most victims survive a lightning strike. You are in no danger helping a lightning victim. The charge will not affect you.

Much more information, including the science of this phenomena, indoor and outdoor safety, medical aspects, survivor stories, photos, and tools for teachers can be found on the National Weather Service's Lightning Safety webpage at:

www.lightningsafety.noaa.gov/week.htm









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