



VoIP Hurricane Net Newsletter

Jan/Feb/March 2008

Volume 2, Issue 1

Are You Ready? Annual Preparedness Issue

Recommendations for
Emergency Preparedness

NOAA Selects New National Hurricane Center Director

Caribbean Meteorological Organization:
weather radar installation near completion



From The Editor

Welcome to the first issue of the year! I have been extremely busy with work that I haven't been able to put out a new issue until now. It seems things have settled down a bit so you can expect this to be back on track. This issue I want to start talking preparedness. As of March 1st we have exactly 92 days before the start of the hurricane season for 2008. No one knows how bad it will be. Last year there was a pretty steady flow of storms but

thankfully the U.S. Coast was spared. Will that continue? Nobody knows for sure so we are obligated to get our network and stations up to a high standard of excellence.

One way we can improve the net is by simply telling your friends. If you live in the areas normally affected by hurricanes then we need you and as many friends as you can. Do your friends not have echolink? Fine! Establish a 2 meter

net with a station to act as a liaison. It is a nice option for hams with antenna restrictions on HF or nets that want a reach back to the NHC.

As always I am looking for writers. I need people to write articles on preparedness, weather, radio, echolink, or anything else related. I spend many hours researching articles and formatting this newsletter and help would be welcome!!

That having been said, please do two things for me:

- 1) Share this publication with anyone and everyone. I want to get the maximum readership I can.
- 2) Drop me a line and tell me what you think. We are not a membership organization so I have no idea how many read it or if they would like anything specific.

Till next time,
- Rich
kf6bka@voipwx.net

Are You Ready - Richard Long -KF6BKA

As we begin this New Year we need to make a new years resolution. Your goal for the year is to learn about the emergency management cycle. The emergency management cycle consists of four phases Mitigation, Preparedness, Response, and Recovery. Here's how this relates to you. We will start with Mitigation.

Mitigation is the process of reducing the effects of a disaster. The first step is identifying the hazards in your area. Most people already know what they have to deal with but some of the things on a hazard list could come as a surprise so its in your best interest to contact your local emergency manager and do some research. Before I moved here to Tennessee I never contemplated the fact that I live in an earthquake zone until I found the local EMA running exercises and I started looking at the states basic plan which includes a hazard analysis. After you have your list of hazards you can start figuring out what you are going to do to minimize the effect on your family such as strapping the water heater to the basement wall if you are affected by earthquakes. These measures make your family safer during an emergency. Preparedness consists of many things. The first and foremost thing is a plan. This applies to

your family and your radios. Your family plan needs to look at all hazards that you (or they if your not there) could face. Does your family know what to do in the event of.....Fill in the blank here? Planning has to be a family matter. I don't know what the research is but I have seen with my own eyes how much confidence a family plan gives the other members of the family. I dealt with a young man about 8 years old named Josh with a mentally handicapped brother. One night they came home and found several fire trucks around their house. Come to find out the house next to them caught fire. The fire was minor and was extinguished quickly. His mother came to me soon after because Josh couldn't sleep at night. He said that he dreamed about his house being on fire. I talked to him a little and he told me he was scared because he didn't know what to do if there was a fire. The next day I arranged for Josh and his mom to come with me to the local fire station. We met some great guys who talked to Josh about the fire and what he could do if it ever happened to his house. Afterwards, we went back to their home and we sat and made a plan of what to do in the event of a fire, explained what the smoke detector did, and how and why to call 911. After this Josh never had a problem

sleeping and felt confident that he could deal with the situation. That's what we must teach our families when we develop a family plan. I encourage you to visit the American Red Cross website and get their planning guide.

Now that the family is taken care of what about our radios! Well you should develop a separate plan for that. I use a red three ring binder with tabs for each hazard possible in my area. Also, I have tabs for Hurricanes since I am involved in this net. It covers equipment lists to go into the field, common frequencies and websites that I can use to gather information or communicate with the world. I also keep all my computer backup disks in there. During a hurricane my plan goes to the extent of what website I want displayed on what monitor. All of this insures that you won't have to spend a lot of time looking for that one frequency you had last season!

Ok! So you have your plan. Now what? Well how about trying it out. Run the family through your family plan, run a net on emergency power, or take the station on the road for field day. If you don't plan to deploy your station then take baseline measurements of your station. Look at power and coverage, signal to noise ratios and so forth. Do this once a quarter



minimum so you can note changes in your system and get it to operate at peak performance.

Well that's it for this month. Next month we will look at the response and recovery phases. Till then remember that the clock is ticking till the next season starts!

Net Changes for 2008

The VoIP Hurricane Net Management team has made a decision on format changes for the Weekly Prep net in 2008 which was announced on the last weekly net for 2007 on 12/15/07. Polls were opened to solicit people's inputs back in late November. Unfortunately, the input represented a very small number of the overall group so it was a bit difficult to determine what people's interests would be in any changes to the net so the net management team, factoring in what input we did get from the polls and our own vision for the net has

come up with the following changes for 2008:

-The VoIP Hurricane Prep Net will meet monthly in the months of December through May on the first weekend of the month at 0000 UTC which is Saturday Evening for much of North America. For each net with the exception of the net in December which typically coincides with SKYWARN Recognition Day, we will have a presentation/training session done on the net to attract interest.

-During Hurricane Season, we will move the net from monthly to weekly to attract more interest. The first net of each month will remain at 0000 UTC/ Saturday Evening for much of North America and we will continue to do presentations unless hurricane activations preclude the time required to do the presentations. An option that will be finalized as we get closer to the 2008 season is whether the other nets that take place during the months in Hurricane Season will take place on that same time slot as the first net of the month or

whether we will have that net take place on a weeknight. This will be decided as we move closer to the 2008 Hurricane Season. Based on the poll input, a Thursday Evening got the most votes as a potential date for a weeknight net. A decision will be made in the late April/ early May 2008 timeframe on whether the net will be held weekly on the weekend during hurricane season or whether it will follow a first weekend of the month, and then weeknight on the remaining weeks of the month format during hurricane season

VOIP Skywarn/Hurricane Net to be Represented at National Hurricane Conference

The VoIP Hurricane Net will be presented at the National Hurricane Conference which will run from Monday March 31st-Friday April 4th, 2008. The Amateur Radio Workshop, Chaired by our own Dennis Dura, K2DCD, will be on Tuesday April 1st, 2008 from 130-500 PM. Rob Macedo, KD1CY, our Operations Manager will make presentations about our net and amateur radios role in gathering disaster intelligence. Amateur Radio Operators interested in attending only the Amateur Radio Workshop are able to get into that one workshop on Amateur Radio free of charge so please attend if you can and spread the word. Those that wish to attend the whole conference are subject to the conference fee. For more information on the National Hurricane Conference, please see the website below:

<http://www.hurricanemeeting.com>

Preparing your Boat for a Hurricane

How do I prepare my boat, trailer or myself before a hurricane?

- If you live or boat in an area prone to hurricanes or heavy weather, know your local and national weather sources and monitor them continuously. Get into the habit of reading weather signs and monitoring the weather.
 - Contact local marinas and ask for advice. You will find marina operators knowledgeable and helpful. They can advise you on the best methods for securing your boat.
 - Remove small boats from the water and move them to a secure location. Ensure the trailer and boat are secured above likely flood areas. Remove all loose items. Ensure the boat is tied securely to the trailer.
- If your boat is too large to be removed from the water, move it to a safe haven well before the storm approaches. You should know where safe havens are in the area where you boat.

Do not go out to sea in a recreational boat to "ride out" a hurricane.

- If you are unable to move your boat contact local marinas for advice.
 - Some steps that may be taken are:
- Use extra fenders. Some people even lash used tires to boats to protect them.
- Double up and secure mooring lines.
- Secure all hatches and portals and cover windscreens.
- Take down mast whenever possible.
- Remove all loose items from decks and superstructure and from area around mooring. Leave nothing unsecured.
- **Never forget that storms move quickly and they are unpredictable. You can always replace a boat; you can not replace a life.**

Florida's Lt. Governor Tours State Logistics Response

ORLANDO, FL – Lt. Governor Jeff Kottkamp today joined members of the Florida Legislature and emergency management officials to tour the State Logistics Response Center (SLRC) in Orlando. Opened in July, the SLRC is the first of its kind in the nation and includes a 200,000-square-foot, 12-acre facility that warehouses over \$14 million in essential water and emergency supplies. It provides a home base and safe staging area for state and federal responders who are deployed in advance of pending disaster events. "Floridians can be proud of this state-of-the-art facility," said Lt. Governor Kottkamp. "Because of the foresight of the Legislature, Florida has enhanced its commitment to improving the resources neces-

sary to meet the needs of our residents following any disaster."

The Lt. Governor toured the massive warehouse building and offices, located near Interstate 4 and Florida's Turnpike, with members of the Florida Legislature. The operation is funded by \$2.1 million in recurring funding originally designated in House Bill 7121 in 2006.

In addition to State Emergency Management personnel, regional staff from the Florida Department of Health, Department of Agriculture and Consumer Services, and federal response agencies will also operate and train at the site. In 2007, over 350 persons have received basic and intermediate logistics training through the state. In 2008, the Orlando

facility will host a new advanced logistics course that will be taught four times each year. The course will include resource ordering, management, inventory control, supply chain management, logistics technologies with bar-code systems, and light and heavy material handling equipment to include OSHA equipment operator certifications.

"This facility provides the value-added resource that enables us to bring local, state, and federal teams together to train and develop their response skills," said Emergency Management Director Craig Fugate. "Our goal is to keep this place busy, benefiting Floridians all year long."

-Florida EMA



Lt. Governor Kottkamp at Collier county EOC

Mobile Communication Upgrades

Recently Alabama EMA employees had an opportunity to check out the mobile communication equipment and learn about the latest changes and upgrades to that equipment.

The Interoperable Communication Vehicle has been equipped with new antennae masts to increase the signal range. A new satellite dish has been installed that will deploy more quickly. Instead of taking seven to ten minutes to be ready it now takes only about three minutes. A DStar digital antenna has also been added. This antenna increases communication capabilities by transmitting to other DStar repeaters which are mainly owned by amateur radio operators or amateur radio clubs.

The Mobile Command Vehicle has had upgrades in the satellite cable and communications equipment in the vehicle. The most important one was the addition of a data dish on the roof of the bus. This will make it possible to have internet and email service as needed.

-AEMA website



AEMA employees learn about improvements to communication vehicles

Recommendations for Emergency Preparedness -Ed Harris, KE4SKY

RACES and CERT members should exemplify preparedness. Without it, the other phases of Emergency Management: response, recovery and mitigation, are empty words. How prepared are you? Have discussed your Family Disaster Plan at home? Do you have a first aid kit, flares or reflectors, water and an ABC dry chemical extinguisher in the vehicle you drove today? If you don't have these items in your "Go Kit" now, you have your homework assignment. We will give you lots of ideas.

Most important in disaster preparation is to HAVE A PLAN! Radio amateurs must plan not only from the amateur radio perspective, but also with respect to community and family. You should presume loss of AC power and amateur radio repeaters, as often happens after storms. It is also essential for RACES units to discuss essential personal protective equipment, and provide equipment recommendations for RACES communicators which include auxiliary power minimums, and share "lessons learned" from those who've "been there and done that."

A survey of coastal communities indicated that barely a third of families plan for hurricanes or flooding. Only a fifth has a disaster supplies kit or evacuation plan. The VA Dept. of Emergency Management (VDEM) states that most hurricane-related deaths occur from inland flooding far from coastal areas. HAZMAT releases and transportation accidents can happen anywhere and may require evacuations and opening of shelters. What if your community was a target of terrorism? How many RACES volunteers could you mobilize on a weekday within an hour? How many of those are likely to be within an affected target area?



If you don't think that your community is at risk for disasters, you are mistaken. Have you worked through likely scenarios with your local Emergency Management and developed a sequence of events and recommended actions for the types of disasters which are most likely to occur in your community? Consider these examples: Natural disasters - every Virginia community is at risk for tornadoes, severe thunder storms, winter storms and flooding. Technological disasters - Every community has the potential for HAZMAT releases and transportation accidents. Resource shortages - every summer drought, thunderstorm or winter storm brings the potential for loss of AC power and water and food shortages. Since September 11, 2001, all Americans should understand that we live in a dangerous world.

Knowing WHAT to do, WHERE to go, HOW to get there and how to NOTIFY everyone where you are and if you are OK is the framework of your family disaster plan. If family members are at work or school and can't get home, they need to know a safe place to go and someone to call to let other family members know where they are, if they need help or are safe. If your family ever needs to evacuate, the process is less upsetting when everyone already knows the plan. You must plan for young children, elderly relatives, animals and other special needs. VDEM provides detailed disaster planning information for the public on the website www.vaemergency.com

Have you practiced EDITH? It stands for Exit Drill in the Home. When your smoke alarm goes off, crawl low to avoid smoke, exit the door, meet outside. Go to a neighbor's house or use a portable phone to call 911. Designate a pre-arranged shelter with a neighbor within walking distance, where kids know they will be safe, and can wait until you get home. Elderly relatives need someone to check on them daily and whom they can call for help if you aren't there. If your neighborhood is told to evacuate so that your nearby neighborhood refuse is not an option, your family will be more at ease if they know somewhere else safe and comfortable to go, instead of a public shelter. When local phone service is out, long distance "may" still work. So designate an out-of-area friend who agrees to accept collect calls from family so that everyone knows who to call to let others know where they are, if they need help or are safe.

Recommendations for Emergency Preparedness -Continued

Ensure that family members know where and how to shut off the electricity, gas and water at the main sources, should they need to evacuate. Are your main utility shut-offs in the home plainly marked? Is there an adjustable wrench in plain sight near your gas meter? If your family ever needs to evacuate turn off all utilities to reduce risk of fire, water damage and contamination.

"Your Family Disaster Supplies Kit" is a VDEM pamphlet developed by FEMA in cooperation with the American Red Cross. It lists essential food, water, shelter, first aid, and safety items which you should have already assembled in a sturdy, water-resistant, easily transported container, which is accessible at home or which can easily be taken with you to a public shelter. Each family member should have their own backpack to carry their own flashlight, extra batteries, a change of clothing, socks and underwear, sturdy shoes, personal medications, sanitary supplies and comfort items.

Next Month we will continue are series with Ed looking at Go Kits Stay with us!!

Radio Amateur Named Head of Tropical Prediction Center

Veteran meteorologist Bill Read, KB5FYA, was named the new director of the National Oceanographic and Atmospheric Administration's (NOAA) Tropical Prediction Center, which includes the National Hurricane Center (NHC) earlier this month. Read had served as the Center's acting deputy director since August 2007. The NHC has a dedicated amateur station on-site – WX4NHC – and has worked closely with hams for decades. In announcing Read's appointment to head the Center, NOAA Administrator Conrad Lautenbacher cited Read's three decades of experience with the agency and of his reputation as "a trusted consultant to emergency managers" in the Houston area.

Prior to joining the National Weather Service (NWS), Read

served in the US Navy, where his duties included an assignment as an on-board meteorologist with the Hurricane Hunters. He began his NWS career in 1977 with the test and evaluation division in Virginia, developed his forecasting skills in Texas, and served as severe thunderstorm and flash flood program leader at the NWS headquarters in Silver Spring, Maryland. Read and his team were at the forefront in July 2003 as Hurricane Claudette made landfall on the Texas coast. He also was part of the Hurricane Liaison Team at the NHC in Miami when Hurricane Isabel came ashore on the Outer Banks of North Carolina and raced northeast in September 2003.

"Bill brings a wealth of experience in meteorology and man-

agement to this position. He has a clear understanding of the needs of staff, the emergency management community and the public in fulfilling our mission of saving lives and property," said Jack Hayes, director of NOAA's National Weather Service. "Bill has a proven track record of pulling people together – from the forecaster to the emergency manager – as severe weather threatens."



How USGS Responded to Hurricanes and Addresses Storms Today

Scientists from the U.S. Geological Survey (USGS) say that the lessons learned and technology deployed before, during and after Hurricanes Dennis, Katrina, Rita and Wilma in 2005 can be used to help the public, emergency responders and policymakers prepare for

and reduce losses from future hurricanes. This and much more is detailed in, "**Science and the Storms: the USGS Response to the Hurricanes of 2005**," a new USGS report which was discussed at two Congressional briefings. The publication showcases every-

thing from the discovery of new storm surge modeling techniques to the use of satellite imagery and airborne LiDAR, or light detection and ranging, to measure land loss and landscape change to how science helps determine water quality and flooding threats –Florida

Emergency Management



Specialized Surface Wind Instruments Fly Onboard Nation's Hurricane Hunter

For the first time, America's entire fleet of aircraft that fly through hurricanes now have instruments that measure surface winds, giving forecasters at **NOAA's National Hurricane Center** a better view of the intensity and the size of these powerful storm systems. The instrument, known as a stepped frequency microwave radiometer, attached to the wing of each aircraft detects radiation that is naturally emitted from foam created on the sea by winds at the surface. Computers onboard the aircraft then determine surface wind

speeds based on the levels of microwave radiation detected.

"When a hurricane threatens our coasts, key on the minds of forecasters and emergency managers is the strength of the surface winds. With this equipment we'll have that information in real time," said retired Navy Vice Admiral Conrad C. Lautenbacher Jr., Ph.D., under secretary of commerce for oceans and atmosphere and NOAA administrator. "Data from these devices can improve our ability to forecast intensity changes of tropical systems."

In the past, aircrews extrapolated wind speeds from the aircraft's altitude or from a GPS dropsonde released from the aircraft. The stepped frequency microwave radiometer provides a continuous measurement of surface winds giving NOAA's National Hurricane Center forecasters a more complete picture of the storm. The instrument can also determine rainfall rates within a storm system. This, in addition to wind speeds at flight level, provides structural detail of the tropical cyclone. -NOAA



New EmComm Software for Windows Now Available for Beta Testing

The Narrow Band Emergency Messaging System (**NBEMS**) development team announced earlier this week that a *Windows* NBEMS software suite for beta testing is now available. NBEMS for *Windows* is a suite of software programs designed for point-to-point, error-free emergency messaging up to or over 100 miles distant.

According to developers Skip Teller, KH6TY and Dave Freese, W1HKJ, the NBEMS system is designed primarily for use on VHF and up, or on HF with Near Vertical Incidence Skywave (**NVIS**) antennas. The system uses the computer soundcard as the modem. Other than a

simple interface connection between the computer and transceiver, no additional hardware is needed. Composing and sending emergency messages on

NBEMS is no more difficult than sending e-mail via the Internet. All forwarding is done by stations manned by live operators on both ends who can confirm that a frequency is clear locally, or negotiate a frequency change to avoid causing interference. The NBEMS software can also be used for daily casual communications on **PSK31**, **PSK63**, **RTTY** or **MFSK16** and is capable of sending flawless, high resolution, passport photo-

sized color images in less than 10 minutes over any path that can sustain PSK250 without excessive repeats. Radio amateurs are invited to participate in the beta test of the NBEMS. The NBEMS suite can be downloaded for beta testing from the **NBEMS Web site**. Send comments and bug reports via **e-mail**. -ARRL



Know If You Live In An Evacuation Zone

Today's headline from a Harvard School of Public Health press release is "Survey of Hurricane Preparedness Finds One-Third on High Risk Coast Will Refuse Evacuation Order." The survey was conducted in eight coastal states from Texas to North Carolina and only included residents within 20 miles of the coast.

Some of the top reasons people give for not evacuating include 1) feeling their home is well-built and they would be safe there, 2) roads would be too crowded, 3) evacuating would be dangerous, 4) worry about possessions being stolen, and 5) not wanting to leave their pets. All of these are legitimate concerns and must be ad-

dressed in any individual hurricane plan. However, I found the most disturbing response in the survey to be the fact that one in three Floridians don't know if their home is in an evacuation zone. One of the first steps in any hurricane plan is deciding whether to evacuate or stay put. No one should wait until an actual hurricane threat to find

out if you will be asked to evacuate or not. areas will not have shelters open during major hurricanes. In addition to folks in storm surge evacuation zones, people in mobile homes will also likely be asked to evacuate. The bottom line: listen to and heed the advice from local officials. - Local10.com

Devastating tropical cyclones

Twenty-four named tropical storms developed in the North-West Pacific during 2007, below the annual average of 27. Fourteen storms were classified as typhoons, equaling the annual average. Tropical cyclones affected millions in south-east Asia, with typhoons *Pabuk*, *Krosa*, *Lekima* and tropical storms like *Peipah* among the severest.

During the 2007 Atlantic Hurricane season, 14 named storms occurred, compared to the annual average of 12, with 6 being classified as hurricanes, equaling the average. For the first time since 1886, two category 5 hurricanes (*Dean* and *Felix*) made landfall in the same season.

In February, due to tropical cyclone *Gamède*, a new worldwide rainfall record was set in French La Reunion with 3,929 mm measured within three days.

In June, cyclone *Gonu* made landfall in Oman, affecting more than 20,000 people and killing 50, before reaching the Islamic Republic of Iran. There is no record of a tropical cyclone hitting Iran since 1945.

On 15 November, tropical cyclone *Sidr* made landfall in Bangladesh, generating winds of up to 240 km/h and torrential rains. More than 8.5 million people were affected and over 3,000 died. Nearly 1.5 million houses were damaged or destroyed. Often hit by cyclones, Bangladesh has developed a network of cyclone shelters and a storm early-warning system, which significantly reduced casualties.

SPECIAL-NEEDS NOAA WEATHER RADIOS FOR HEARING IMPAIRED

Since the week of Feb. 25-29 is Severe Weather Awareness Week the Mississippi Emergency Management Agency would like to remind every resident that a NOAA Weather Radio can be a lifesaver when severe weather threatens. But most people with NOAA Weather Radios take for granted their ability to hear when a weather warning is sounded. However, for the deaf and hard of hearing the audio is of little to no use, which is why a number of Weather Radio manufacturers have developed special-needs NOAA Weather Radios. A special-needs NOAA Weather Radio is specially equipped to warn a person who is deaf or hard of hearing when severe weather is coming. The weather radio gives visual and vibrating alarms along with text readout of the important weather information. Like a traditional NOAA Weather Radio these radios utilize a battery backup and are in many cases portable. For visually impaired users these Special-Needs Weather Radios may be equipped to convert the weather message with large print or Braille versions depending on volunteering reading services. When an alert is issued the special-needs weather radio can activate one of several options, including a pillow or bed shaker, to wake individuals from sleep or a flashing strobe light.

If you would like to learn more about special-needs NOAA Weather Radios visit www.nssl.noaa.gov/edu/safety/specialneeds.html.

MEMA would like to remind people that severe weather safety and preparedness is for everybody. For more information on preparedness and severe weather, visit the following websites at www.msema.org or www.srh.noaa.gov/jan. – MISSISSIPPI EMERGENCY MANAGEMENT AGENCY

Met Office tropical storms forecast success



The Met Office's first-ever seasonal **tropical storms forecast** provided some of the best guidance in 2007, demonstrating greater accuracy than predictions from other forecasting centers.

The unique forecast uses global climate models coupled with ocean temperature predictions to forecast tropical storm activity and builds on the success of trials during the previous two years.

In June, the Met Office issued the forecast for 10 named tropical storms in the Atlantic between July and November. The actual number of named storms recorded during that period was 12.

Two of those storms, hurricanes *Dean* and *Felix*, were intense storms but overall it was a quiet year. Only two of the last 12 Atlantic tropical storm seasons have recorded lower activity than 2007.

Paul Nunn, Lloyd's Head of Exposure Management said: "Lloyd's were delighted to host the launch of the Met Office 2007 hurricane prediction method in June. We believe that having a variety of forecasting methods is valuable to the insurance market and we find the Met Office's innovative dynamical modeling particularly exciting as it incorporates our understanding of the laws of physics into the process."

The Met Office is unique in providing seasonal tropical storm predictions together with short-range track and landfall projections of individual storms. These forecasts ensure consistent and accurate advice on the possible impacts and risks to businesses ranging from financial markets, insurers and the oil industry.

This year has been the most successful year in forecasting the short-term track of tropical storms. Since 1996, the Met Office has been predicting the paths of specific storms and this year the Met Office has achieved its lowest recorded track error since the forecasts began.

The prospect of a warmer climate is likely to lead to an increase of intense tropical storms with higher wind speeds and heavier rain. Principal Climate Change Consultant, Matt Huddleston said: "By the 2080s, tropical cyclone winds could be 6% stronger, which is the difference between a Category 4 and a Category 5 storm. Hurricanes represent one of the biggest financial risks to the UK's markets. These new forecasting techniques couldn't have come at a more critical time"

UK meteorology office

Increased Hurricane Losses Due to More People, Wealth Along Coastlines, Not Stronger Storms, New Study Says



A team of scientists have found that the economic damages from hurricanes have increased in the U.S. over time due to greater population, infrastructure, and wealth on the U.S. coastlines, and not to any spike in the number or intensity of hurricanes.

“We found that although some decades were quieter and less damaging in the U.S. and others had more land-falling hurricanes and more damage, the economic costs of land-falling hurricanes have steadily increased over time,” said Chris Landsea, one of the researchers as well as the science and operations officer at **NOAA’s National Hurricane Center** in Miami. “There is nothing in the U.S. hurricane damage record that indicates global warming has caused a significant increase in destruction along our coasts.”

In a newly published paper in *Natural Hazards Review*, the researchers also found that economic hurricane damage in the U.S. has been doubling every 10 to 15 years. If more people continue to move to the hurricane-prone coastline, future economic hurricane losses may be far

greater than previously thought.

“Unless action is taken to address the growing concentration of people and property in coastal hurricane areas, the damage will increase by a great deal as more people and infrastructure inhabit these coastal locations,” said Landsea.

The *Natural Hazards Review* paper, “**Normalized Hurricane Damage in the United States: 1900-2005**,” was written by Roger A. Pielke Jr. (University of Colorado), Joel Gratz (ICAT Managers, Inc.), Chris Landsea, Douglas Collins (Tillinghast-Towers Perrin), Mark A. Saunders (University College London), and Rade Musulin (Aon Re Australia).

The team used two different approaches, which gave similar results, to estimate the economic damages of historical hurricanes if they were to strike today, building upon the work published originally by Landsea and Pielke in 1998, and by Collins and Lowe in 2001. Both methods used changes in inflation and wealth at the national level. The first method utilized population increases at the county coastal level, while the second used changes in housing units at the county coastal level.

The results illustrate the effects of the tremendous pace of growth in vulnerable hurricane areas. If the 1926 Great Miami Hurricane were to hit today, the study estimated it would cause the largest losses at \$140 billion to \$157 billion, with Hurricane Katrina second on the list at \$81 billion.

The team concludes that potential damage from storms – currently about \$10 billion yearly – is growing at a rate that may place severe burdens on exposed communities, and that avoiding huge losses will require a change in the rate of population growth in coastal areas, major improvements in construction standards, or other mitigation actions. - NASA

Recommended Items to Include in a Basic Emergency Supply Kit:

- **Water**, one gallon of water per person per day for at least three days, for drinking and sanitation
- **Food**, at least a three-day supply of non-perishable food
- Battery-powered or hand crank radio and a NOAA Weather Radio with tone alert and extra batteries for both
- Flashlight and extra batteries
- **First aid kit**
- Whistle to signal for help
- **Dust mask**, to help filter contaminated air and plastic sheeting and duct tape to shelter-in-place
- Moist towelettes, garbage bags and plastic ties for personal sanitation
- Wrench or pliers to turn off utilities
- Can opener for food (if kit contains canned food)

Local maps

Additional Items to Consider Adding to an Emergency Supply Kit:

- Prescription medications and glasses
- Infant formula and diapers
- Pet food and extra water for your pet
- Important family documents such as copies of insurance policies, identification and bank account records in a waterproof, portable container
- Cash or traveler's checks and change
- Emergency reference material such as a first aid book or information from www.ready.gov
- Sleeping bag or warm blanket for each person. Consider additional bedding if you live in a cold-weather climate.
- Complete change of clothing including a long sleeved shirt, long pants and sturdy shoes. Consider additional clothing if you live in a cold-weather climate.
- Household chlorine bleach and medicine dropper – When diluted nine parts wa-

ter to one part bleach, bleach can be used as a disinfectant. Or in an emergency, you can use it to treat water by using 16 drops of regular household liquid bleach per gallon of water. Do not use scented, color safe or bleaches with added cleaners.

- Fire Extinguisher
- Matches in a waterproof container
- Feminine supplies and personal hygiene items
- Mess kits, paper cups, plates and plastic utensils, paper towels
- Paper and pencil
- Books, games, puzzles or other activities for children

- Red Cross

Caribbean Meteorological Organization: weather radar installation near completion



The long-awaited Doppler Weather Radar, being installed by the Caribbean Meteorological Organization (CMO), is nearing completion at Brasso Venado in the district of Tabaquite in the central range of Trinidad.

The weather radar which is under installation in Trinidad & Tobago is part of a 13.2 million Euro (approx TT\$ 128 million) Caribbean weather radar network project funded by the European Union and implemented by the Port of Spain-based Caribbean Meteorological Organization. The weather radar at Brasso Venado is a sophisticated state-of-the-art system built by the Selex-Gematronix company of Germany, which has been placed on a five-storey 20-metre reinforced concrete tower that will house the related equipment

The CMO is also installing similar new weather radars in Guyana, Barbados and Belize. These four radars will be linked with other existing radars in the Caribbean to form a modern network of nine radars that will be a key component in the *Caribbean Early Warning System* for predicting and monitoring severe weather conditions.

Mr Tyrone Sutherland, Coordinating Director of the CMO, said that "the installation of the radar at Brasso Venado will be completed within weeks, after which a period of extensive testing will take place. The Caribbean Meteorological Organization expects to hand the radar over to the Government of Trinidad & Tobago for operational use by the Meteorological Service in time for the start of the 2008 hurricane season. The weather radar will provide complete coverage of both islands and out to a distance of 400 km, enabling meteorologists to provide more accurate and timely information on all

kinds of severe weather, such as approaching tropical storm and hurricanes, heavy rainfall events, etc. Information from the radar will be made available by the Meteorological Services to the public, national disaster preparedness and emergency agencies and other users in Trinidad & Tobago and throughout the Caribbean via the Internet and the media. In other words, both specialists and the general public will be able to 'see' approaching weather on the radars for themselves. -WMO



FAMILY DISASTER PLAN

- ✔ Discuss the type of hazards that could affect your family. Know your home's vulnerability to **storm surge**, **flooding** and **wind**.

- ✔ Locate a safe room or the safest areas in your home for each hurricane hazard. In certain circumstances the safest areas may not be your home but within your community.

- ✔ Determine escape routes from your home and places

to meet. These should be measured in tens of miles rather than hundreds of miles.

- ✔ Have an out-of-state friend as a family contact, so all your family members have a single point of contact.

- ✔ Make a plan now for what to do with your **pets** if you need to evacuate.

- ✔ Post emergency telephone numbers by your phones and make sure your children know how and when to call 911.

- ✔ Check your insurance coverage - flood damage is not usually covered by homeowners insurance.

- ✔ Stock non-perishable emergency supplies and a **Disaster Supply Kit**.

- ✔ Use a **NOAA weather radio**. Remember to replace its battery every 6 months, as you do with your smoke detectors.

- ✔ Take First Aid, CPR and disaster preparedness classes.

New Radio System In Louisiana

Today the Governor's Office of Homeland Security and Emergency Preparedness (GOHSEP), the **Louisiana State Police (LSP)** and the **Statewide Interoperable Communication System Executive Committee** report the status of the Statewide Interoperable Communications System and its recommended funding for the fiscal year 2008 - 2009.

Key lessons learned that have driven planning in Louisiana over the last several years include those learned in the nation's response to the 9-11 terror attacks, and the state's response to Hurricanes Katrina and Rita. Louisiana's response to the Hurricanes highlighted the state's need for more robust systems to support communication among local, state, and federal first responders. In September of 2005, Louisiana partnered with the federal government and local agencies to secure funding for initial implementation of the statewide system in southeast Louisiana.

This statewide communications system is designed to support statewide interagency interoperability among local and state agency first responders during times of emergency, mutual aid response and day to day operations.

"During emergency situations it is a necessity that local and state responders are able to directly communicate with one another, and this system will allow that capability," said Mark Cooper, Director of GOHSEP, "With this funding Louisiana will achieve 95% portable radio coverage statewide."

Today, this system is operational in all parishes south of the I-10 corridor and in southeast Louisiana. Currently the system has 6,712 state users and 8,410 local users, with many agencies planning to connect to the system within the year 2008.

A multiphase implementation strategy was adopted due to the overwhelming expense of developing this statewide system, which will allow the initial system acquisitions cost to be spread across an acceptable period of time.

Phase I refers to the areas along the Gulf Coast which are most prone to catastrophic natural disasters. Phase II refers to the build-out in the middle section of the State. Phase III refers to the build-out in the northern part of the state. Phase IV refers to the addition of 34 sites, deployed statewide, providing secure 95% or better coverage when using a portable radio inside a building at street level in the more densely populated seven metropolitan areas of the State, and secure 95% or better coverage when using a mobile street level radio in all other areas of the State, which will optimize and further improve statewide interoperable communications.

Louisiana continues to pursue funding from various federal, state, local and private sources to implement a shared vision of a statewide communications system, with capacity and capability to transmit emergency communications for voice, data and imagery technology for Louisiana's first responders. Louisiana has fostered development of state and local partnerships and ensures communication and coordination occurs at all levels, on all issues.

"The Louisiana State Police is committed to working with our state and local partners to realize interoperable communications for public safety professionals across the state," stated Colonel Mike Edmonson. "Utilizing this funding to expand our collective resources will help us in accomplishing our goal."

FY 2008-2009 Executive Budget Recommendation:

- \$21.1** million will fund connectivity for the northern areas of the state to the statewide system, in addition to the purchase of a master site, which will provide redundant connectivity.
- \$3.7** million will fund the purchase of approximately 1,057 portable or mobile radios for local and state agency responders throughout Louisiana.
- \$8.4** million will fund ongoing statewide system maintenance provided by the Louisiana Department of Public Safety and Corrections, Public Safety Services.
- \$483,000** will fund 4 full-time dedicated interoperability positions, which will provide executive staff support for planning, policy and research.

The State's plan is purposely flexible, to meet the challenges in funding sources, development of a standard operating procedures, ongoing evaluation of system capacity and emerging technologies, and public information to increase local buy-in and usage

—LA Office of Homeland Security and Emergency Preparedness

Develop a family hurricane preparedness plan before an actual storm threatens your area. If your family hurricane preparedness plan includes evacuation to a safer location for any of the reasons specified with in this web site, then it is important to consider the following points: **If ordered to evacuate, do not wait or delay your departure.**

If possible, leave before local officials issue an evacuation order for your area. Even a slight delay in starting your evacuation will result in significantly longer travel times as traf-

HAVE A PLACE TO GO

fic congestion worsens.

Select an evacuation destination that is nearest to your home, preferably in the same county, or at least minimize the distance over which you must travel in order to reach your intended shelter location.

In choosing your destination, keep in mind that the hotels and other sheltering options in most inland metropolitan areas are likely to be filled very quickly in a large, multi-county hurricane evacuation event. **If you decide**

to evacuate to another county or region, be prepared to wait in traffic.

The large number of people in this state who must evacuate during a hurricane will probably cause massive delays and major congestion along most designated evacuation routes; the larger the storm, the greater the probability of traffic jams and extended travel times. If possible, make arrangements to stay with the friend or relative who resides closest to your home and who will not have to

evacuate. Discuss with your intended host the details of your family evacuation plan well before the beginning of the hurricane season. **If a hotel or motel is your final intended destination during an evacuation, make reservations before you leave.** Most hotel and motels will fill quickly once evacuations begin. The longer you wait to make reservations, even if an official evacuation order has not been issued for your area or county, the less likely you are to find hotel/motel room vacancies, especially along inter-

state highways and in major metropolitan areas. **If you are unable to stay with friends or family and no hotels/motels rooms are available, then as a last resort go to a shelter.** Remember, shelters are not designed for comfort and do not usually accept pets. Bring your **disaster supply kit** with you to the shelter. Find **Pet-Friendly** hotels and motels.

Make sure that you fill up your car with gas, before you leave.

Four Steps to Safety

Disaster can strike quickly and without warning. It can force you to evacuate your neighborhood or confine you to your home. What would you do if basic services—water, gas, electricity or telephones—were cut off? Local officials and relief workers will be on the scene after a disaster, but they cannot reach everyone right away.

1. Find Out What Could Happen to You

- Contact your local Red Cross chapter or emergency management office before a disaster occurs—be prepared to take notes.
- Ask what types of disasters are most likely to happen. Request information on how to prepare for each.
- Learn about your community's warning signals: what they sound like and what you should do when you hear them.
- Ask about **animal care after a disaster**. Animals are not allowed inside emergency shelters because of health regulations.
- Find out **how to help elderly or disabled persons**, if needed.
- Find out about the disaster plans at your workplace, your children's school or day care center, and other places where your family spends time.

2. Create a Disaster Plan

- Meet with your family and discuss why you need to prepare for disaster. Explain the dangers of fire, severe weather, and earthquakes to children. Plan to share responsibilities and work together as a team.
- Discuss the types of disasters that are most likely to happen. Explain what to do in each case.
Pick two places to meet:
 - Right outside your home in case of a sudden emergency, like a fire.
 - Outside your neighborhood in case you can't return home. Everyone must know the address and phone number.
- Ask an out-of-state friend to be your "family contact." After a disaster, it's often easier to call long distance. Other family members should call this person and tell them where they are. Everyone must know your contact's phone number.
- Discuss what to do in **an evacuation**. Plan how to take care of your pets.

3. Complete This Checklist

- Post emergency telephone numbers by phones (fire, police, ambulance, etc.).
- Teach children how and when to call 9-1-1 or your local Emergency Medical Services number for emergency help.
- Show each family member how and when to turn off the utilities (water, gas, and electricity) at the main switches.
- Check if you have adequate insurance coverage.
- Get training from the fire department for each family member on how to use the fire extinguisher (ABC type), and show them where it's kept.
- Install smoke detectors on each level of your home, especially near bedrooms.
- Conduct a home hazard hunt home hazard hunt.
- Stock emergency supplies and assemble a **Disaster Supplies Kit**.
- Take a Red Cross first aid and CPR class.
- Determine the best escape routes from your home. Find two ways out of each room.
- Find the safe places in your home for each type of disaster.

- In a disaster, ordinary items in the home can cause injury and damage. Anything that can move, fall, break, or cause a fire is a potential hazard.
- Repair defective electrical wiring and leaky gas connections.
- Fasten shelves securely.
- Place large, heavy objects on lower shelves.
- Hang pictures and mirrors away from beds.
- Brace overhead light fixtures.
- Secure water heater. Strap to wall studs.
- Repair cracks in ceilings or foundations.
- Store weed killers, pesticides, and flammable products away from heat sources.
- Place oily polishing rags or waste in covered metal cans.
- Clean and repair chimneys, flue pipes, vent connectors, and gas vents.

Four Steps to Safety—Continued

• 4. Practice and Maintain Your Plan

- Quiz your kids every six months or so.
- Conduct fire and emergency evacuations.
- Replace stored water and stored food every six months.
- Test and recharge your fire extinguisher(s) according to manufacturer's instructions.
- Test your smoke detectors monthly and change the batteries at least once a year.

Neighbors Helping Neighbors

Working with neighbors can save lives and property. Meet with your neighbors to plan how the neighborhood could work together after a disaster until help arrives. If you're a member of a neighborhood organization, such as a home association or crime watch group, introduce disaster preparedness as a new activity. Know your neighbors' special skills (e.g., medical, technical) and consider how you could help neighbors who have special needs, such as disabled and elderly persons. Make plans for child care in case parents can't get home.

If Disaster Strikes

Remain calm and patient. Put your plan into action.

Check for Injuries

Give first aid and get help for seriously injured people.

Listen to Your Battery-Powered Radio for News and Instructions

Check for Damage in Your Home...

- Use flashlights. Do not light matches or turn on electrical switches, if you suspect damage.
- Sniff for gas leaks, starting at the water heater. If you smell gas or suspect a leak, turn off the main gas valve, open windows, and get everyone outside quickly.
- Shut off any other damaged utilities. (You will need a professional to turn gas back on.)
- Clean up spilled medicines, bleaches, gasoline, and other flammable liquids immediately.

Remember to...

- Confine or secure your pets.
- Call your family contact—do not use the telephone again unless it is a life-threatening emergency.
- Check on your neighbors, especially elderly or disabled persons.
- Make sure you have an adequate water supply in case service is cut off.
- Stay away from downed power lines.

To get copies of American Red Cross community disaster education materials, contact **your local Red Cross** chapter.

From "Family Disaster Plan." developed by the **Federal Emergency Management Agency** and the **American Red Cross**.



2008 National Hurricane Conference
March 31-April 4 |The Rosen Centre Hotel |Orlando, FL
The nation's forum for education and professional training in hurricane preparedness!

Conference Server Upgrade

The conference server has been upgraded to the latest version of the bridge. This version adds some capabilities and fixes a couple of long standing bugs. Thanks to Skip WB6YMH for making the following possible.

New features:

- We can now connect to any IRLP reflector channel, no longer limited to channel 9 on other reflectors. We can also connect to other systems on arbitrary ports (e.g. for providing streaming feeds, etc). The only limitation is that channels intended for 2 way traffic need to be GSM channels. The owner of the destination reflector does need to allow us access for this to work.
- The new software also allows multiple integrated conferences per host. We are not using this capability yet, but it can be configured.
- A user (usually an administrator) logged into the reflector over SSH or on the console can participate in the text chat (with callsign *WX_TALK*). This feature can also be used to link the conference to another text medium (e.g. packet convers servers, IRC, etc), if someone is able to write a suitable gateway program to translate between the Echolink text chat on the UDP port and the other chat service(s).

Bug fixes:

- .record now records audio from IRLP nodes (previously only Echolink nodes and text chat were recorded), so we can now use the inbuilt .record feature to record nets.
- .play4 -u plays audio to IRLP nodes. This allows us to properly implement audio messages on connect for IRLP nodes.
- Fixes to the EventScript interface. This should improve the performance of the conference kicker script. It should now react instantly to anyone who connects while in conference.
- I've automated the connection to ref9129 in the server's startup.

Future enhancements (roadmap):

A new reflector architecture is being developed, which will involve major changes to the design of IRLP reflectors, which will require some testing (on a dedicated test server, of course!). The changes involve taking the changes made for the integrated conference to encompass all channels - both ADPCM and GSM.

These changes will make features such as IRLP muting and reflector - reflector connections available on all channels. Echolink functionality will not (due to codec incompatibility) be available on ADPCM channels, and can be disabled on GSM channels, if Echolink connectivity is not required.

73 de VK3JED Tony



The Emergency Management Institute (EMI) offers self-paced courses designed for people who have emergency management responsibilities and the general public. All are offered free-of-charge to those who qualify for enrollment. To get a complete listing of courses go to

<http://training.fema.gov/IS/crslist.asp>

Your monthly update about the VoIP Hurricane Net !!

VoIP Hurricane Net Manager—Kevin Anderson, KD5WX, kd5wx@voipwx.net

VoIP Hurricane Net Manager—Danny Musten, KD4RAA, kd4raa@voipwx.net

Public Information Officer—Lloyd Colston, KC5FM, kc5fm@voipwx.net

Editor—Richard Long, KF6BKA, kf6bka@voipwx.net

Director of Operations—Rob Macedo, KD1CY, kd1cy@voipwx.net

Asst. Director of Operations — Dennis Dura, K2DCD

K2DCD@arrl.org

Submit articles to kf6bka@voipwx.net

Making A Difference!!



WE ARE LOOKING FOR EXPERIENCED NET CONTROLS!!
If you are interesting in volunteering contact Jim Palmer, KB1KQW at kb1kqw@voipwx.net to schedule training.

We are on the web!
www.voipwx.net

Photo of the Month



The Great Waterspout in Vineyard Sound, August 19, 1896 Second spout of the storm Photograph taken from Cottage City at 1:15 P.M In: Monthly Weather Review, July 1906, p. 356. Figure 32