DISASTERCOM

DERA TOTAL

DERA Newsletter

43 Years of Service

September 2005

DERA Members Assisting Rescue Ops & Helping Families Find each other

At one point during the first week after Hurricane Katrina, Salvation Army Major Pat McPherson was on three phone calls at once.



Major Pat has been an active member of DERA since 1995 and is currently a Life Member.

SATERN is a volunteer radio team that not only helps its onsite Salvation Army volunteers be in touch with the national office, but also helps families find each other when a disaster wipes out other forms of communication.

"We received more than 60,000 inquiries and we've found 6,800 people so far," he said. "We were able to reconnect them with family and friends. We find more each day."

The SHARES (Shared Resources) radio network, a collection of government, military and Military Affiliate Radio System (MARS) radio stations, joined forces with SATERN to help with the Hurricane Katrina response. Many DERA members are affiliated with both networks.

(Cont'd on Page 6)

In This Issue:
SPECIAL REPORTS on Katrina

From Waveland, MS



DERA member Bill Brogan, KA1PA, shares his assessments with us after a full week providing communications support to Mississippi's Hancock County EOC at Katrina's Ground Zero. Sentiments like the statement above; "Will be Back" are blazoned across evacuees hearts across the nations. (Cont'd on Page 3)



Angel Flight America (AFA) has been working around the clock bringing in emergency workers, agency staff, volunteers and supplies into hurricane and flood-ravaged Louisiana, Mississippi and Alabama, and more importantly, they are NOW focusing on reunification of families and relocation of evacuees.

(Cont'd on Page 6)



Bridge to nothing

Ocean Springs, MS

The homes on the beach in Ocean Springs are gone. Even the homes that withstood Camille didn't survive this hurricane. They're gone. They're absolutely gone.



What was he response? It was a tremendous outpouring of donated goods. Please see DERA's Public Awareness message on ways that you can help disaster victims at www.disasters.org/dera/library/wp_2005_9.pdf



The new Hard Rock Café casinohotel in Gulfport, Miss., built by Roy Anderson Corp., also based there, received its certificate of occupancy the Friday before Katrina slammed into the Gulf Coast

DisasterCom is the quarterly newsletter of DERA International. News items and articles are always welcome. ISSN 1521-1592 Editor: Catherine Lawhun

Membership in this Nonprofit Association is open to all who share our commitment to effective disaster preparedness and response.

See Back Page for Membership Application
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DERA International

P.O. Box 797 Longmont, CO 80502

DERA is a Nonprofit, U.S. IRS 501(c)(3)
Disaster Service and Professional Association
Established in 1962
Incorporated in the State of Wisconsin.
Newsletter ISSN 1521-1592.

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From Your **Editor's desk**

The devastation caused by Katrina is beyond our ability to really comprehend. To have Rita follow



close behind was unimaginable. But amidst the finger pointing, there are those who are really helping – and they are in it for the long term.



Photo showing depth of water on light post in Mobile, Alabama during Katrina storm surge. Storm surge was reported as high 14ft. in some areas.

Thousands of volunteers from every nonprofit and every state have come forward with incredible ideas, energy and their great wealth of compassion to help.

Those affected have been welcomed into homes and churches of every denomination and every ethnic group. But the task is monumental and coordination among assisting organizations is a feat in of itself. Who are the organizations that are assisting in the coordination? Many are DERA members themselves.

I personally spent the first week after the storm hit chairing conference calls and running interference for the Volunteer Organizations Active in Disasters (VOADs) in Louisiana, Mississippi, Florida and Texas. From that vantage point is was easy to see how much the experience that the responding organizations in Florida had gained from dealing with the aftermath of the four hurricanes last year had increased their ability to be of real help. The Texas VOADs were also VERY well organized and able to mobilize their forces quickly and efficiently. In each case it was due in part to 2 factors coming into play. The first was that there was a single person who had taken it upon themselves to have all the contact information for all the leaders among their Interfaith group. The second was the presence of a web based- central coordinating entity. In this case, the Virtual EOC implemented by DERA Member, Walter Greene.

Over 25 Many Waters Engineers have been sourced for deploying to the affected area in support of FEMA operations and will continue to be

sourced until the need is fulfilled. If you have engineering credentials and/or previous experience working on the ground for FEMA please register at www.manywaters.org/engineersp.html

DERA members have been leading. mentoring and working in disaster response since the early 1960's. We welcome and promote all innovative and practical solutions for Preparedness and Response and ask you to forward your ideas and solutions for our upcoming workshop in February hosted in conjunction with the International Disaster Management Conference. Please forward your white papers to editor@disasters.org

DERA member and Director Stefan Pollack offered his innovative SoundCommander high power PA sets to the National Guard. These portable devices provide a very effective mechanism for being heard by thousands of people, especially in situations like the Super Dome. The units are also capable of sound levels that can penetrate apartments and large homes to assist in locating more survivors.

Keep up the good work!!!

Yours Truly,

Catherine Lawhun,
President of
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(Continued from Page 1)

Waveland is located about 50 miles east of New Orleans, Louisiana. As most of you know this was ground zero.

Fortunately, for me, I spent my nights farther north of I-10 off Route 603 at the 'New' Emergency Operations Center (EOC) It was labeled "new" because it set up hastily, however was professionally, as a temporary EOC. The "Real" EOC had sustained heavy damage under 30 feet of storm surge. "Hancock EOC New" had between two and four feet of standing water after the storm and it was located on relatively high ground fourteen miles north of the gulf. Grasp the severity of the area's storm surge damage....fourteen miles north of the gulf was under between two and four feet of standing water after the storm.

South of the EOC was the Route 10 (East/West) and 603 (North/South) interchange which was under nine feet of water. That was about twelve miles inland from the Gulf.

During my week's tour of duty, I was located at Route 603's intersection with Route 90 (East/West). This location is 1.4 miles north of the Gulf where only days earlier, nine feet of water had blanketed the area. Everything was contaminated. Nothing was safe to touch and cleanliness was essential.



Pictures really don't begin to tell the story. Just can't capture the stench in the air or the look in the eyes of the overly friendly people we were assisting. That look, the look in their eyes will forever be a part of me.

Route 603, running north and south was passable to the Gulf, after it had been cleared by the Corp of Engineers. There were no areas farther south that could effectively be set up for supplying the needy other than the chosen location at the Route 603 and Route 90 intersection.

Traveling south on Route 603, from our supply line, I saw a few homes standing, but not necessarily on their original lots or foundations, some had floated or were

pushed by storm surge, thousands of feet.

There were east/west railroad tracks just south of our POD (short for Point Of Distribution) where we distributed needed supplies. The water reached heights greater than thirty feet from these tracks to the Gulf as can be seen in the photos, nothing there remains recognizable.



DERA members with

Feed the Children

Help families across the country and around the world

Joel Osteen, Pastor of Lakewood Church in Houston and head of Joel Osteen ministries, is teaming with Feed the Children during the nationwide tour of his event "An Evening with Joel." At each of the events across the country, Feed The Children is collecting canned food items to benefit hungry children and families in that community.

DERA Members with Humane Society of the U.S. working around the clock

The HSUS is leading a massive relief effort to rescue animals and assist their caregivers in the disaster areas. Highly trained HSUS Disaster Animal Response Teams are working around the clock in New Orleans and Mississippi. We now have more than 300 people on the ground doing search-and-rescue and staffing temporary shelters, and have rescued thousands of animals from New Orleans and other areas - with many more still stranded and needing our help.

DERA is asking all members to support the important work of HSUS.



New Member Roster

Kailash Gupta, VU2KIZ Fargo, ND

Capitan Hilario Duran Tiburcio Mexico City, Mexico

> Kent Leonard, KØNME Denver, CO

> > Chris Jewell Seattle, WA

SFC Shawn C. Mallet Ft Leonard Wood, MO

Barbara Kleinknecht Laurel, MD

Enoch Ibarra, RN, COHN-S Fortuna, CA

> David Binder West Des Moines, IA

MGySgt (Ret) Octavio A. Smith Laguna Niguel, CA

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It is our sincere aim to help you
achieve your professional and personal
goals

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November 15 – 17, 2005 Orleans Hotel & Casino Las Vegas Nevada.

For additional information, call (702) 455-5710 or visit www.hazmatexplo.org for the latest information.

Family of Five People Trapped in Attic

As reported by AG4ZG

Robert Rathbone, AG4ZG, ran the Net control for DERA's Haiti Project. Since then, he has completed the full suite of ARRL's EMCOM courseware as well as gained NIMS certification. The following is his account of one the rescues he facilitated during Hurricane Katrina.

The first rescue was a group of 15 people stranded on a roof with an 81 year old woman in medical distress. This information was taken down and another ham operator began working on it. The next emergency traffic item was a family of 5 trapped in the attic, in Diamond Head Louisiana at XXX AKIKAI DR. The people in distress had used their cell phone to call for help and the message had reached the net.

I looked up the address on the computer for a map and saw the address was a coastal address - hit with the storm surge.

Another station attempted to call the local Sheriffs Department for that area as I also attempted to call the Sheriffs Department. I figured one person could call and I hadn't identified that I was working on the problem yet. Light bulb went off, house surrounded by water... Coast Guard! This was very early in the disaster and the idea of water being everywhere had not been shown on TV. I called the local SAR Coast Guard Station in Clearwater Florida at 727-824-7506 and identified myself to the Duty Officer, Petty Officer Heinzman as a Ham operator and the nature of my call. I told him I was looking for a closer station to pass the information. He informed me that New Orleans Coast Guard station had to relocate and was not available. I explained in detail the nature of the emergency - Family of 5 trapped in attic, water rising in Louisiana on the coast. I had to make sure of the address, I recontacted SATERN net. The address of XXX AKIKAI DR. (still not sure how to pronounce it) was passed to the Coast Guard along with other information. Petty Officer Heinzman professionally copied the information and told me he would call me back when a rescue mission was initiated. I continued monitoring SATERN.. Two other emergency calls came in with people in trapped in attics. That day the SATERN net gradually changed from Health and Welfare to handling more and more Priority and Emergency calls. And hour later I received a call from South Haven Sheriff Department in Louisiana (662393-8652) the officer informed me a rescue operation was in progress. He also told me the state EOC building had collapsed (unverified) and they had to relocate.

Fifteen minutes later Petty Officer Heinzman called me to let me know a rescue mission was in progress. I passed this information back to the SATERN net. I continued to monitor and assisting in relays when no other coverage was available.

Ham radio works when all else doesn't!

Robert Rathbone AG4ZG

Horror Stories

In Mississippi, water swamped the emergency operations center at Hancock County courthouse. The back of the building collapsed and "Thirty-five people swam out of their emergency operations center with life jackets on," Mississippi's Sun Herald newspaper said. Reuters 08/30/05

The local hospital appealed for more doctors and nurses to treat the wounded. Hancock County emergency workers went from house to house and put black paint on those where people died, CNN said. They planned to return later to pick up the bodies but did not have enough refrigerated trucks.

Lessons Learned from the Tsunami

Identifying the Dead

By Ed Cropley

BÁNGKOK (9-7-05) - U.S. police face a "hell of a task" to identify thousands of Hurricane Katrina victims left rotting in heat and humidity similar to the aftermath of the Indian Ocean tsunami, a top forensic expert said on Wednesday. "I don't envy them at all," said Detective Superintendent Derek Forest, a Briton who has been running the largest forensic operation in history to try to identify the nearly 5,500 victims of the December 26 disaster in Thailand.

"We had 5,500 here and we're still going after eight months -- and we've still got 1,500 we're trying to identify," Forest told Reuters.

"I really do wish them the best, because they've got a very difficult situation on their hands. It's a hell of a task." Many of the conditions which have made the process so complicated and lengthy in Thailand, he said, would be the same for the United States, where officials fear Katrina may have left as many as 10,000 corpses in its wake.

"You've got bodies exposed to water and intense temperatures -- and that's going to introduce bacteria quickly," Forest said. The bacteria would start breaking down DNA immediately, making laboratory analysis more difficult, he said. Even though Thailand sent DNA to laboratories in the United States and China after the tsunami, much of the data that came back was insufficiently precise to allow for a positive identification.

The two other main methods of postmortem analysis -- fingerprinting and dental records -- might also prove ineffective in some cases, Forest said.

With fingerprints, the longer a body lies in water the more difficult it is to obtain reliable prints, while dental records can prove useless if children have had no fillings.

His comments raise the prospect that many victims of Katrina -- children in particular -- might never be identified.

"Children don't tend to have a lot of dental history and as oral hygiene improves, they're having fillings later and later in life," Forest said.

"As far as dental records are concerned, I would be more worried about children than about the older people."

USGS Reports New Wetland Loss from Hurricane Katrina in Southeastern Louisiana

U.S. Geological Survey scientists report that preliminary analysis of satellite data indicate Hurricane Katrina caused substantial marsh loss in St. Bernard and Plaquemines parishes.

This land loss potentially further reduces southeastern Louisiana's natural protection from future storms. Louisiana already had previously lost about 1,900 square miles of coastal land, primarily marshes, since the 1930s.

Scientists estimate that the effects of Katrina transformed more than 30 square miles of marsh around the upper portion of Breton Sound to open water, or 20 to 26 percent of this 133-square mile area.

Reports were not in on damage caused by Hurricane Rita at the time of printing.

Disaster Communications DERA's Solution

In Katrina, as in every other large-scale disaster in memory, lack of effective communications was <u>the</u> single greatest problem affecting emergency response. Despite huge investments in the nation's communications infrastructure, fixed land-based systems have a tendency to fail just when they are needed most.

Many communities in Mississippi and Louisiana were simply cut off from the outside world and could not even call for help after Katrina had passed. Without the valiant efforts of a handful of amateur radio operators using their own equipment, many communities would have had no communications at all. DERA deployed our portable satellite systems and DERA members assisted individually, but the need was simply overwhelming.

Since our beginning in 1962, DERA has put a high priority on being able to provide emergency communications during disasters in the belief that this is our best contribution to the overall effort because reliable communications will have a "force multiplication" effect for responders.

Both in the U.S. and around the world, DERA members regularly deploy to disasters with lightweight but highly capable radio systems, and often provide incident commanders and other officials with their only long-range links in the first critical hours of the crisis.

In the 1970's, life member Bill Kratch built a series of highly versatile, airtransportable communications vehicles, the most famous of which was "Rescue 621," used for three weeks as the primary multiagency interlink following the eruption of Mt. Saint Helens. Those vehicles were exactly what was needed during Katrina and Rita.

In early 2001, DERA partnered with WCARS in Asheville, N.C. to purchase an emergency communications van that has been used widely since.

One lesson is clear from Hurricane Katrina: Disaster communications systems are needed now more than ever before, and DERA has the technical resources and field experience needed to develop and manage effective systems.

One aspect has changed, however, and that is the need for bandwidth, or in other

words a large number of high speed circuits providing voice, data, and video. DERA's old system of backpack radios and handheld satellite telephones, while always useful, need to be supplemented with more robust capabilities.

DERA proposes to develop a fleet of versatile communications vehicles capable of providing exactly what was needed in New Orleans and the entire Gulf region immediately after Katrina.

DERA communications vans would provide HF voice and data channels for the very highest priority emergency communications when all other systems are down. Other capabilities will include:

- Satellite uplink to support 4 voice channels, 8 WiFi users, 8 Ethernet users and 4 ARES/RACES users with high data-rate SATCOM internet links. Once the immediate crisis has passed, DERA would open the WiFi channels for free public access and would provide a charging station for laptop batteries.
- Interoperable analog and digital VHF/UHF communications.
- Console for 3 operators to patch among channels and to link any channel directly via SATCOM
- Onboard Conference PBX to support 8 cordless phones with tie to POTS, SATCOM or VoIP as available.
- Independent emergency generator and fuel for 72-96 hours operation



DERA is now seeking sponsorship funding for 5-8 vehicles, which will be maintained and operated by DERA members in cooperation with local response organizations such as ARES/RACES and Citizens Corps.

Each vehicle will cost: about \$98,000 to fully outfit, and the annual operating expenses will about \$20,000, depending on actual mileage for deployments.

- Jay Wilson

Katrina Emergency Communications Lessons LearnedMississippi called for help ahead of the storm

The communications were just fine from the Mississippi State Ops Emergency Location. Their Governor. asked for military communications help as Katrina prepared to hit his State. AAA3USA, the Eastern Area Gateway at Ft. Dietrich ,MD was tasked as liaison with FEMA's networks. A team of communicators was also sent to the re-located Emergency Mississippi Ops Center to assist in staffing the Center. (see story on Bill Brogan above) The rescue came and response was handled by the Coast Guard who also sent personnel to assist.



Communications Tower destroyed in Mississippi

Internet and high tech mapping capabilities in Disaster Response

The internet played and is still playing a major role in this disaster. Although weather and news sites experienced slow downloads during and just after the storm, the ability of the internet to move audio, graphical and detailed textual information to multitudes quickly has begun to be used in some very creative ways. For instance, the radio club that deployed out of Tampa were equipped with APRS and it was possible to both track them geographically as well as listen to streaming audio of their real time transmissions from any pc workstation.



Mapping availability over the internet plays a huge role as well and the USGS has worked extensively to provide products to all the requesting agencies. Many of the rescue efforts were coordinated using GIS databases to locate trapped residents by address and then transmit exact coordinates back to the Coast Guard in the air or water via radio.

In November 2004, Geospatial Information and Technology Association sponsored a Pilot Project on Geospatially Enabling Community Collaboration for Protecting Critical Infrastructure. The summary report for the meeting are available at the following site:

http://www.gita.org/ngi4cip/denver_summary.pdf

SATERN (continued from page 1)

Major Pat said they could not have located as many people as they did without the help of the thousands of volunteer HAM radio operators around the country and the volunteers who staffed phone lines. The Computer Sciences Corporation in Dallas also deserves tremendous credit, he said, because of the capacity it was able to provide. The company offered technical help and had its staff searching databases of survivors as well.

Early in the response effort the numbers of applications being files to help find loved ones that the SATERN servers were handling ran at 5-7 per second. The last numbers Major Pat could recall were when the admin folks called and said, "it's slowing down, we only have 600 apps per hour now" During the few hours that the servers were overloaded, the Disaster Services Center in Elkgrove opened their 43 station phone bank network to receive calls and take the messages by hand and passing them on to radio operators.

CSC (Computer Sciences Corporation) then volunteered to help The Salvation Army Team Emergency Radio Network (SATERN) in response to the Hurricane Katrina Endeavor.

Major Pat and John Peterson, program director for SHARES arranged for SATERN to participate in the National Communications Systems "SHAred RESources" program linking federal agencies (including MARS) by HF radio.

Because of their exemplary work in this disaster, SATERN has over 1000 new members who are currently seeking to join.

Good relationships go a long way in Disaster operations and long standing friendships at the FCC benefited SATERN emergency ops by providing personnel to provide informal protection of the main HF frequencies.

Major Pat has run an excruciating schedule since before Katrina struck, staying up until 4am on multiple days. At the same time, he has the full time responsibility for an entire congregation with 55 employees and 40 people in their day program.

Major McPhereson said, "God gives us what we need to get through"

More on AngelFlight

Volunteer pilots have relocated 1000's of evacuees out of their uncomfortable shelter conditions and into safer situations. Butch Smith, volunteer pilot for Angel Flight said that although they are out of emergency mode by now but "this is going to be more of a marathon than a sprint".

The South Central Director assured DERA that "Until a government solution for free transportation is implemented, Angel Flight will be there." Their National Disaster Hotline is 866-897-0687.

NIAR Notes

- DERA has initiated nomination of Mr. Suri, Founder and President of the National Institute for Amateur Radio, India for the ARRL International Humanitarian Award.
- A major International HAMFEST is proposed at Port Blair, A&N Islands in Jan/Feb 2006. We are currently having discussions with various departments of Govt. of India to consider possibility of DX hams to conduct Dxpedition operations from these Andamans.

This will be for the first time that India will ever allow DX hams to operate amateur radio stations from these Islands.

- We are also working on suitable project for coastal areas of Tamil Nadu state to benefit fishermen community by integrating Maritime Mobile stations with Amateur Radio Network.
- We are also working on project to expand more Amateur Radio stations in country particularly in Disaster prone

areas similar to the project taken up in the year 2003-04.

All of this is becoming possible with the visit of senior officials from Government of India visiting Hamvention at Dayton earlier this year. We hope more liberalized policies would be taken up by the Govt. of India for promotion of amateur radio in the country.

NIAR is currently in constant dialogue with the concerned departments hoping for a major break through in the policy matters. Your interaction with Mr. Ajeer Vidya in USA and DERA participation in the International seminar conducted at Chennai is bringing positive results.

Unprecedented Evacuation

Approximately 3 million people were evacuated before Hurricane Rita made landfall as a Category 3 hurricane.

At least 1.5 million out of the city of Houston alone, a city already swollen with evacuees of Hurricane Katrina lodged in hotels, shelters and medical facilities.

Now emergency managers are faced with bringing them safely back into parts of the city that are not yet safe.

The have instituted a phased plan for return, ordering return on early days to locations where the infrastructure is already secured and restored and prohibiting return to those portions of the city with unsafe conditions.

November 12-16, 2005

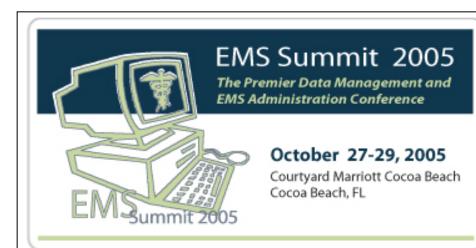
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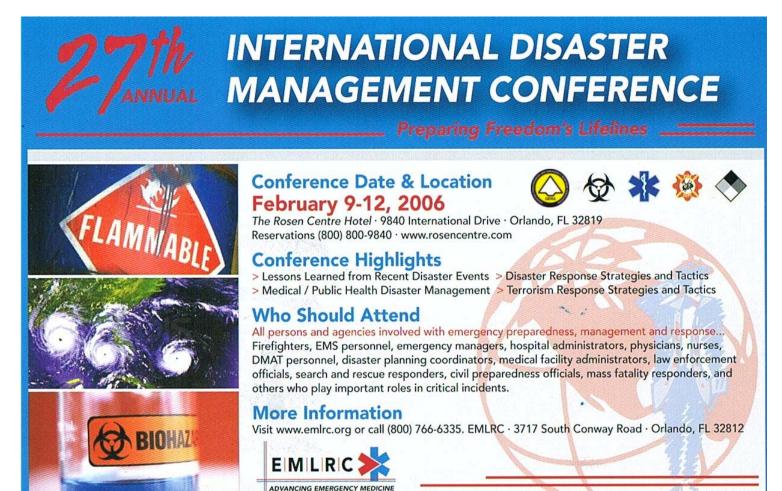
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www.disasters.org/dera/workshop.htm



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DERA is a Nonprofit Disaster Service and Professional Organization.

Our members work together as a world-wide professional network of disaster researchers, response and recovery specialists, trainers, consultants, technical experts, and project managers.

We help disaster victims by improving communications and logistics, reducing risks and mitigating hazards, conducting community preparedness workshops, and by sponsoring preparedness and response projects.

We sponsor a school awards program that encourages students to study the effects of disasters and conduct projects to reduce hazards and improve community preparedness.

As a prominent international professional association, our membership is composed of key leaders in the field of emergency management from around the world, including government officials, volunteers, consultants, business managers, researchers, educators, students and charitable groups.

Our quarterly newsletter, <u>DisasterCom</u>, brings current information about developments in emergency management and reports on the activities of our global membership.

We sponsor research projects and the publication of emergency management guides, case studies, technical assessments, and preparedness materials.

If you share our vision of commitment and service, we would welcome you as a member.

Please complete the application that follows or contact us for further information.

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Also, please visit us at http://www.disasters.org

Professional Affiliation

Membership Application



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