

Radio among the ruins*

Ham Radio and Hurricanes Katrina and Rita

Dr. Bob Conder, K4RLC

After the terrific devastation of Hurricane Katrina, I felt the need to volunteer to help the victims of this tragic storm. As I could serve dual roles, I volunteered both with ARRL/ARES as an emergency radio operator (trained with the ARECC courses), and with the American Red Cross (ARC). I told my wife, "whoever calls first, will get me." Her perfectly reasonable reply was "Why can't you just give money and stay here?"

Two days after faxing my application to Washington, DC, the American Red Cross Disaster Mental Health Assistance Team called and wanted me to deploy immediately for the Gulf area. My 20+ years as a neuropsychologist, with Public Health Anti-Terrorism Training by grants from Homeland Security won out. I was ready to go. However, I told my friends, including Tom N4TAB, ASEC Eastern North Carolina, and Gary KN4AQ, *Repeater Journal* editor, that I would meet as many hams as possible and document their work in the disaster area.

As such, this article summarizes the activities of the ham volunteers I met, some working right in the heart of the disaster. Details about the devastation witnessed and my personal experiences are shared as background, so that fellow hams get a sense of what we can expect and will need to offer in response to a Level V disaster.

Before I left, Gary KN4AQ had contacted Ron W4VM, head of the Alabama Repeater Association via email. Ron had just returned from being a first responder to the Mississippi Gulf disaster area. He told us that he had been serving primarily in shelters in the Pascagoula and Ocean Springs, Mississippi (MS) areas. Ron knew the status of the MS coast repeaters, and said that the Gulfport repeater on 146.73 was really the only working repeater left. It operated from 0600 to midnight, with emergency traffic for Harrison, Hancock and Jackson counties. Many other repeaters in the area had been damaged or destroyed by Hurricane Katrina. Ron and others had worked to restore them, but, at this early point in the disaster, there was limited success. After Ron's email and description of the disaster, I hoped that I would be deployed to the Gulfport area.

* Apologies to Walker Percy, author of *Love Among the Ruins*, a novel about a post-apocalyptic New Orleans. Percy also was a psychiatrist trained at UNC Chapel Hill.

DEPLOYMENT: MONTGOMERY, AL

I left Raleigh and flew to Atlanta. There, many Red Cross volunteers who would serve together met in the airport, while our flight to Montgomery, Alabama was delayed for almost three hours. Once the pilot got his duct tape repairs made to the prop plane, we actually had a smooth flight to Montgomery. We were taken to Headquarters in the old K-Mart in Montgomery for initial processing. As we rode up in the bus, I saw a B&W Folded Dipole, and 2 meter verticals on the roof, a sure sign of ham radio activity inside.

The entire inside of the old K-Mart had been gutted and taken over by the Red Cross, to be used as their processing center in Alabama to deploy volunteers into Mississippi and some parts of Louisiana. Divergent activities were occurring in different

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K4RLC and his trusty Red Cross van. Bob is an ARRL Assistant Emergency Coordinator for Wake County ARES in Raleigh, North Carolina

Repeater Journal COVER STORY

Cover photo courtesy of NASA

Katrina: the Real Thing my first time

Jeff Martin WB4JM

I had to do something; the responsibility loomed over my head continuing to ask the question: when are you going? I had most of the equipment needed and I just re-

turned from the National Boy Scout Jamboree near Washington D.C. so the skills needed for self-preservation were there.

There would be no problem getting off work. And finally the very first section of the FCC rules that define public service seemed to appear everywhere suggesting action. It was time and the means were there, so the decision was made. I just had to figure out a way to tell my wife...

REAL THING
continued on page XXX



WB4JM is a past SERA Director for Kentucky, and currently President of the Kentucky Colonels Amateur Radio Club in Bowling Green



Amateur radio at the Red Cross Montgomery AL KMart staging area

areas of the building, including staffing, orientation, training, health, and a staff shelter where many of the staff slept on army cots.

The activity was frenetic, like a gerbil on a cappuccino. I saw the ham radio desk over in a corner (ironically under the old K-Mart ELECTRONICS sign). The hams were easy to spot, as the ARRL flag and ARRL banner were displayed proudly on one table and against the wall. I walked over and introduced myself.

There were two long tables full of HF and VHF equipment. I had already seen a B&W folded dipole outside, as well as two-meter antennas and had an idea about the set up. Inside, I began talking with Fred W2FMB, who had arrived from New Jersey to provide radio communications support. He was operating with Dennis K7BV from ARRL headquarters in Newington. Dennis had brought his ICOM 756 Pro-II, an old Heathkit amplifier, and a Bulgarian-made amplifier. Dennis explained that the amps were needed for 75 and 40 meters, during the early and mid-September solar flares.

Greg W4OZK, ARRL Section Manager for Alabama, joined them, along with a few other hams I was unable to meet. Dennis and Fred were handling traffic from the affected area in the Mississippi Gulf, which they passed along to Red Cross staff at the Montgomery coordination site. Traffic covered almost anything: need for radio operators, need for Red Cross equipment and personnel, shelter status, but not Health & Welfare Traffic, as that was handled on the Salvation Army 7.290 net.

Due to my interest in talking with the hams, I had lost my place in the processing chain, my orientation had to be delayed and

I almost ruined my deployment to the “affected areas.” However, when I finally got registered and told my supervisor (Sara, a tough redhead) I wanted to be deployed to the worst disaster area, she raised one eyebrow sardonically and said: “You may get what you want,” as if I would come to regret that request.

REDEPLOYMENT: BILOXI AND GULFPORT, MS

By that evening we had been transported via bus from Montgomery, AL to Biloxi, MS. Our Red Cross Headquarters was the Joppa Shriners Center in northern Biloxi. Upon entering, it appeared to be only a smaller version of the confusion and chaos of the Montgomery HQ. However, its microcosm of organization was more easily apparent. Within a few hours, ARC had taken the Shriners temple and converted

the large indoor space into a fully working operational center for the entire Mississippi Gulf Coast. It was amazing how the networking folks had completely set up computer networks. From the balcony, they had run rope across the length and width of the interior, only later adding cables in the air and then dropping them down the tables so no cables were on the floor... a great idea.

Outside and to the back of HQ was a beautiful, silver, gleaming Air Stream trailer with the call letters W4SAN and the Cumberland County (TN) Emergency Radio group name displayed. Behind it in a field over a small tent city and guyed in the trees, was another B&W folded dipole, as well as numerous VHF antennas on top of the trailer.

The Air Stream trailer had been deployed immediately after Katrina, and arrived when there was no electricity or potable water, and a disaster scene that I could only compare to photographs of Nagasaki and Hiroshima in Japan, or the firebombing of Dresden, Germany. Not knowing they were soon to leave and being too busy with my clinical responsibilities, I unfortunately missed the opportunity to visit the inside of the trailer. However, as sure as someone is a ham, they will be near food, so I was able to meet some of the ham operators over breakfast at HQ (powered eggs, link sausage and homemade grits).

One such was Gary AG4XO from Knoxville, TN, who told me that he was part of a group of Army MARS Operators, and one of a second wave of operators for the EmComm trailer, which had been completed only weeks before the Katrina disaster by the Cumberland County club. I never got the complete story on who built and who operated the communications Air Stream, but they did a great job.

Within several days, the beautiful Air Stream from W4SAN had left our Biloxi HQ,



Cumberland County (TN) Emergency Communications Group's gleaming Air Stream

Scrap Metal:
N8TVU's comm trailer
and telescoping mast



to be replaced by a smaller utility trailer owned and operated by Robert N8TVU, from Ohio. Robert's trailer had more antennas per square inch on the roof than I could have ever imagined. I met Robert over breakfast, of course, early one morning, and he gave me a tour of his emergency ops trailer. Robert was a retired Deputy Sheriff and the DEC for the Cincinnati area. He explained that being a ham and equipping his trailer kept him out of trouble in his retirement. Or, at least, that's what he told his wife.

At the front of the trailer was a telescoping mast of the type used for satellite uplink on TV station mobile units. I asked Robert

how much it cost. He proudly said it would cost \$6,000 to replace, but he had known a guy who had three of them and was going to sell them for scrap metal. Robert asked him what he would get for scrap, and when the guy said \$50 a piece, Robert gladly wrote out him a check for all three.

On top of this, he had a horizontal cross-piece with three separate VHF antennas. He also hung from this, not the B&W folded dipole, but a simple 80-meter dipole fed with ladder line and connected to a SGC tuner. He happily reported being 20 over in Montgomery on HF.

Robert brought me inside and I was again

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Amateur Radio Shines Brightly Through Storm Clouds

It's almost like getting struck twice by lightning. In 1969 hurricane Camille tore through my area, Lamar County, Mississippi, 60 miles north of Gulfport. I was 19 at the time. There were so many trees downed it took two weeks to get all of them cut off the fences on our 100 acre farm. We were without power and water for two weeks.

It never crossed my mind that it would happen again, but the eye of Katrina passed so close that we could see clear sky to the west. The wind never stopped – measured at just over 100 miles per hour sustained with gusts to over 120.

My home is 2 miles off of US Highway 11. It took me, my son Tyler KD5LAI, and ten of our neighbors seven hours to cut our way out to the highway. All communications were out, and fallen trees took my HF and VHF antennas down. The KD5MIS VHF and UHF repeaters nearby were still on the air on battery backup. I used my mobile VHF to check on ham friends who might be on the air. I found few and went to work cutting the trees from our road out to the highway, knowing we all needed to be able to get out in order to obtain supplies, get medical personnel in for older, ailing neighbors if necessary, and get to jobs.

When we finally finished I heard our Emergency Management Director, James Smith, on the same repeater I had used. He is not yet a licensed amateur but the call was an emergency and is allowed. Our local civil defense personnel support the amateur radio at the emergency management headquarters and purchased the equipment for the KD5RMM station. He announced "We need ham operators at the EOC now! We have no communications to the outside world and there is severe damage all around." Smith was asked if the roads to the EOC were open and he advised they had been "cut out" or opened, barely. While rushing home, I tried to find other ops on VHF but couldn't. The storm was still blowing quite strongly. I checked on my family, cleaned off the chainsaw dust, changed clothes and went to start passing radio traffic.

Our station at the Lamar County Emergency Management headquarters consists of an Icom 718 HF, an Icom 2100H VHF and an ADI UHF rig. A dipole is supported by two power-line poles furnished and erected by Pearl River Valley Electric Power Association. A dual band VHF/UHF antenna is mounted on a standoff on a 40-foot Rohn 25 tower. Both antennas and the entire ham system took all Katrina had to offer and the station came through when we needed it, unlike the fancy, loaded with bells and

James L. Lee, KC5TYL

whistles trunking radio systems which were the first to go off the air and leave many counties and cities in the lurch. When amateurs in the area planned the station we used the KISS principle so that anyone could come in and operate.

An emergency kit has necessary information about operating in an emergency: ARRL message forms, local ARES member contact numbers, other items which might be needed, the manuals for the rigs and a few spare parts. The club callsign prevents confusion when ops change.

When I arrived at the EOC, it was a beehive, lots of activity. There were representatives from county agencies, ambulance EMTs, volunteer fire department personnel and a host of others. Going directly to the operations room where our station was located, the equipment was checked, and I began making contacts with the Mississippi Emergency Management Agency (MEMA) in the state capital of Jackson. Mississippi state RACES officer and ARES DEC Ron Brown AB5WF was manning the amateur station at MEMA. I can't say enough about the professional job Ron did during the 10 days of emergency/rescue operations following the hurricane's landfall. He had his hands full with numerous counties and cities passing traffic through him and he handled most of it alone.

This brings up a point that needs to be made. We all had some hams come in to relieve us from time-to-time. For that we are grateful. But we all had to work much, much more than should be necessary because there were not enough ops available. In a disaster situation, many can't be there to help. We all know this. However, if you can break away for a two-hour shift, it greatly lowers the fatigue on everyone. With several willing to operate for short tours, no one is burdened and everyone has time to see about their own family's needs.

Getting to the HF station, I tuned to 7.285 MHz where the West Gulf ARES Emergency Net was in full swing. This is a very well operated net and has many dedicated ops who did a superb job of handling voluminous traffic. Waiting my turn, I began ordering supplies needed by our relief agencies for our citizens. Our county had no power, no water, many impassible roads and streets due to downed trees, ambulances which could not get to patients and so many other needs that no one can even begin to comprehend the devastation a storm like Katrina can cause. One would have to be in a widespread disaster such as a strong hurricane, western fire, major

earthquake or something similar to know how society, commerce and public services can be totally shut down and many left homeless. The needs in my part of the state were so many that I passed traffic until my "tongue was hanging out," ordering bottled water, ice, outside law enforcement and fire fighters, food, FEMA, Red Cross, tarpaulins to cover roofs, etc., etc. Many others were also using the West Gulf ARES Emergency Net and to hear the needs from New Orleans and the Mississippi Gulf Coast was gut wrenching. Hundreds of thousands were in dire straits and the pleas which could not be acted upon as well as the constant barrage of problems facing them has caused some emergency personnel to be in need of professional counseling from post-traumatic shock.

The Pine Belt Repeater Coalition's repeater system was a great help for us in passing traffic. The system is owned and operated by a group of six amateurs across south Mississippi. It consists of four VHF repeaters on tall towers and a UHF linking system. This system allowed us to link repeaters from the Coast to the Capital, over 150 miles apart. These repeaters allowed traffic to be passed directly to MEMA without waiting our turn on the HF net. That sped up supply streams a lot.

One of the Hattiesburg Area Amateur Radio Club's VHF repeaters was off the air due to the power outage at the site. The idea of loaning it to the coastal counties was proposed since they had only two repeaters usable for the whole gulf coast and we had enough on the air for our needs. Through his work as a broadcast engineer, Harold Stanton N5GBR secured permission to locate the K5PN repeater and antenna very high on the WXXV Fox television transmission tower at McHenry. This would cover most of the three coastal counties and sixty miles inland. I polled the other repeater committee members and the club president, Larry AG5Z. All thought it was a great way to help and the 147.360 machine is at work today.

Our area was fortunate in that local emergency management officials had the foresight to allow us to install an amateur station at the EOC. Those cities and counties that had a ham station were able to get relief supplies on the road much, much faster than those that didn't. Our citizens suffered, but not as much as others in our area did due to the fact that we had an ARES presence.

Emergency management officers and county elected officials thanked me so many times that I lost count a long time ago. They have told our ARES ops that "the hams came through when we needed them" and that they couldn't have done their job without us.

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impressed to find that this retired deputy had assembled more radios per square inch than would be believed. This included his two HF rigs, and multiple two meter, 220, 440 radios, a full complement of Motorola HTs he tuned to the Red Cross frequency, and a portable repeater. He had two networked computers with large LCD screens running the N3FJP EmComm logging program. While all this was equipped to be run off of generator power, he had managed instead to tap into the 20-amp line at the Shriners' Temple. A true ham in every way, Robert N8TVU was sleeping on the floor in the electrical room of the temple, feeling it to be better than being in a tent.

ture of society had broken down, and such firepower was needed as a deterrent to manage the unruly crowd dynamics. Fortunately, the Red Cross Disaster Team ID got us past checkpoints for regular Army, National Guard, SWAT Teams, State Troopers and Local Law Enforcement – we were all brothers in arms, ultimately serving the same purpose of helping to restore normalcy to lives devastated by Hurricane Katrina.

The next day, I was assigned to go with a fellow volunteer, a chaplain, to a Buddhist Temple in the Little Saigon section of East Biloxi, MS. East Biloxi is a small peninsula in the Gulf of Mexico. Driving around East

the roads, recently cleared by bulldozers, with rubble of homes perhaps twelve to fifteen feet high for as many blocks as the eye could see. The debris of leftover boards, bricks, and shingles was harrowing, but less so than seeing the belongings of the people who had lived in those houses, and whose ruined furniture was piled upside down on the road, in chaos like a two-year-old leaves his toys. Occasionally, the smell of death blew by, but we were never sure of its origin.

Exiting I-110 and turning left on Division Street in our Red Cross van, we were waived through a National Guard checkpoint by a smiling soldier, giving us a “thumbs up” sign. We passed a large football stadium, dubbed “Yankee Stadium” by some, and “Compassion Central” by others. Shining out from the rubble along Division Street, it had become a “tent city” for the displaced hurricane survivors.

Salvation Army signs and vehicles were everywhere. I scanned the fences and saw what I had hoped for, another B&W Folded Dipole antenna, a VHF J-Pole, and a dual polarized VHF yagi. One end of the dipole was tied off high in the bleachers, while the other end was tied to a vertical on the football goalpost. The VHF antennas were on various push-up poles, supported by the stadium’s metal fence, but sagging some from their weight.

As I entered Compassion Central and followed the antenna feedlines, I found a full HF and VHF setup on a folding table, under a gazebo. Despite the gazebo, the late afternoon sun shone directly on the equipment, baking in the near-record almost 100 degree temperature. I found a ham wearing an ARES T-shirt, and talked with him briefly. He said: “But you really need to talk with Ed. Here he comes.”

When I looked in his direction, there came Ed W4AGA, in a wheelchair. Ed was an amputee, with the majority of his right leg missing. Ed rolled right up and, seeing me, immediately said: “Good, now that



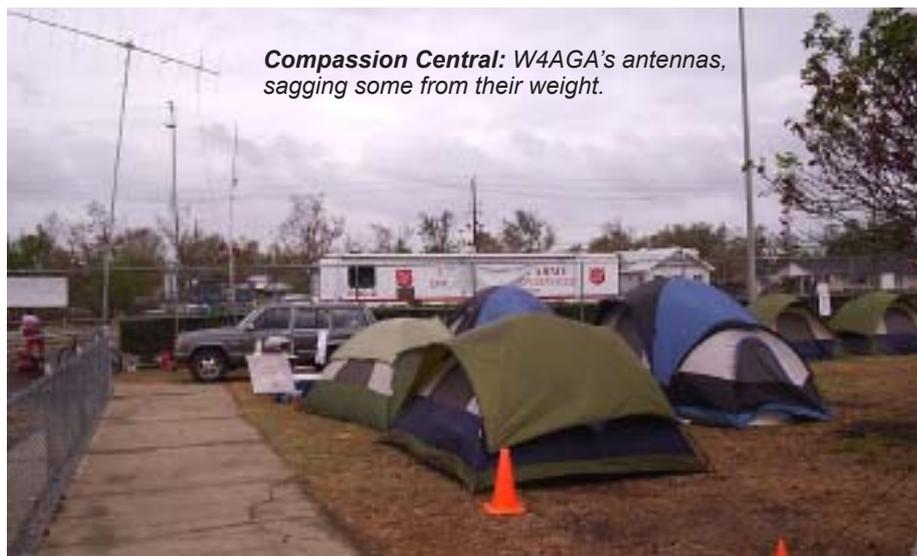
“more radios per square inch” — N8TVU and his impressive collection of emergency communications equipment.

Biloxi, I got my first taste of the damage this natural disaster had wrought. The city had been reduced to piles of rubble along

Ham Radio operations at Red Cross HQ in Biloxi expanded several days later, when Robert N8TVU was joined by Terrance N1CTO, also from the Cincinnati area. Terrance drove a large, well-equipped truck and pulled a large trailer, donated by a friend. As they hadn’t time to equip this trailer, it became the storage trailer for extra radio equipment and supplies, so Robert’s trailer could be manned efficiently for communications.

OUT IN THE FIELD IN THE WAKE OF KATRINA:

The first day out in the field, my team was assigned to visit several shelters, to assess the residents’ ability to return to the community. At the first site, Biloxi High School, I was amazed to find regular Army, equipped with M-16s, stationed to keep the peace. After the hurricane, the infrastruc-



Compassion Central: W4AGA’s antennas, sagging some from their weight.

we've got three people here, let's move the awning to get more shade on the radios." I gladly obliged.

Ed had been there from the beginning, living in a tent and setting up and operating the radios off generators or batteries. I was so blown away that I missed much of

what he said, but told him I wanted to return with my camera and spend time with him. I left with a feeling of awe for Ed's dedication and strength of purpose.

Within several days, the usual chaos worsened by the impending arrival of Hurricane Rita, still off the Louisiana coast but

sending strong gusting winds and episodic rain as far east as Biloxi.

Some of us decided to head back to Sector 2, East Biloxi, for an interfaith church service at the Vietnamese Catholic church in the morning, then to our assigned areas. The service was beautiful, with Catho-



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lic hymns being sung in Vietnamese, and messages from clergy from different denominations. We left to return to Yankee Stadium/Compassion Central, to find Ed.

The tent city there had been somewhat diminishing until the approach of Rita. Residents who had ridden out Katrina or returned to find their homes and businesses in rubble were very frightened. They had returned to Yankee Stadium for shelter and/or the hot meals provided by the Salvation Army. Ed had taken his gazebo and table down, due to Rita's winds and rain, and moved his radio equipment into his Jeep Wagoner.

Although he had been there earlier that morning, he was nowhere to be found. In front of his Jeep and tent, there was a faded and rain soaked sign that read "COMMUNICATIONS W4AGA." I took a few photos of his disaster QTH and hoped that he was somewhere getting a hot meal, disappointed that I would not be able to speak with him at greater length.



The remainder of my time there, I was assigned to Neighborhood Care Teams. Our job was to go right in the heart of the disaster and provide "psychological first aid" and food and supplies to the hurricane survivors who were living in tents where their houses had been, or attempting to live in their damaged houses. I drove a large Ford F-350 van equipped with water and Gatorade, MREs, junk food, cleaning supplies and toys for the kids.

The next day I drove the van to Pass Christian and Bay St. Louis (both peninsula areas in the Gulf of Mexico), two of the many formerly beautiful beach-front communities now trashed by Katrina. There the National Guard had encamped, ensconced with several Hum-Vs behind concertina wire.

What we really were seeking was a clean Port-a-John. The members of the Iowa National Guard were more than happy to let us by the concertina wire to use theirs, although they weren't any better than the rest. Couldn't find any hams there, and couldn't raise the local repeater on my HT, but thought

all hams could relate to this incident.

I was initially unimpressed with my next daily assignment to a community called Diamondhead, as the sector map showed it as having had two golf courses and a yacht club. I mistakenly believed I was being sent to take care of some yuppies. However, I learned that this community was comprised of active duty military and scientists connected with the nearby Stennis NASA Space Center, named for the powerful senator for Mississippi who landed many government gems for his home state. It was my honor to talk with one Navy officer who spent 10 hours during the dark night with his teenage son in two trees, in 15 feet of water and in hurricane force winds. A piece of a dock had floated by, and they had made a makeshift seat between the trees, hanging on and dodging debris blown by the wind.

Another person I met was a hospital administrator, a person used to dealing with stress and adversity. He told me that despite assurances that there would be no flooding in their area, as they were 22 feet above sea level, thirty people in their little community drowned in the storm. As he had a brick house with a steeple roof, neighbors swam to his house, and eleven people rode out the storm in his attic. In case the flooding got higher, he was prepared with an axe to break through the roof. So much for yuppies!

Leaving for Sector 7 in west Biloxi, via Highway 90, the ocean highway, it was amazing to see four Casino barges, large as the Titanic, tossed across the highway and up a block or two in the neighborhood, with barnacles all over their base. It gave just a hint of the power of Katrina's almost 30 foot storm surge and the 150 mph winds. Further west on Highway 90, I saw a sight familiar to me only because of a QSL I had once received – it was the old Biloxi Lighthouse, built in 1847 and standing proud and intact, among the ruins. I had worked W5B in a Lighthouse contest five years ago, and recognized it from a photo on the QSL. Further down was the wreckage of Beauvoir, the retirement home of Jefferson Davis, former President of Confederacy. The superstructure stood, but all the historical artifacts including documents, paintings, uniforms, etc., had been blown to who knew where.

Due to the high winds from the approach of Hurricane Rita, we were called in transit and told to cancel our activities for the remainder of the day. We were disappointed, but truthfully my beloved Ford F-350 van was really getting blown around.

Our activities resumed noon the next

day, when the winds had somewhat subsided. We returned to one of my favorite areas, Bay St. Louis and Waveland. On Beach Blvd., the gale force winds of Hurricane Rita were still episodically occurring and had re-flooded parts of this area. Worse, Rita had begun blowing in bodies drowned by Katrina. Some were found by construction workers around the beach. I stopped and helped one of the many Search and Rescue teams look along the beach. Fortunately or unfortunately, we didn't find anybody.

Even though Hurricane Rita struck to our west, as soon as she got close to the coast, the anxieties of Hurricane Katrina survivors went through the roof. Locals got panicky, and gas lines ran out into the highways, with the rumor mill saying that FEMA was going to ration gas.

At our Biloxi Red Cross HQ, Robert's response was to crank the telescoping tower down, to keep it from being bent in the strong winds and rain from Hurricane Rita. He was still able to receive traffic from the local shelters in Biloxi and Gulfport, and to relay the information via HF to Montgomery without a problem. VHF frequencies used were the Gulfport repeater on 147.375, and simplex on 146.42 and 146.55. The Biloxi repeater on 146.730 eventually came back on the air, but I couldn't raise it with my HT.

The winds of Rita continued sporadically. By the following Monday, Hancock and Harrison counties had 15 tornadoes that touched ground, although fortunately damage was minimal and no additional lives were taken. After the winds subsided, Robert cranked his telescoping tower back up. But this time he guyed it – one went to the building, while the other went to a row of about 12 joined Port-a-Johns. At that point, the Port-a-Johns were some of the heaviest structures on the grounds.

My final day in the field, I was assigned to take Peter (a supervisor friend) to Pearlrington, MS, which really was "ground zero" for Katrina. Peter had been dispatched to go to the Emergency Operations Center (EOC) there and smooth out some interagency problems (enough said about that). He asked that I drive him, as he knew I had been all over the western MS sections. Unfortunately, Pearlrington – much less the EOC there – was not on any of the maps that we had. I told him not to worry, as I had an innate sense of direction. What this meant was that we got totally lost in the backwoods of deep southwest MS, in bayou sections I didn't know existed.

Out in the boonies, we drove down a road and finally came to its end, with the bridge out, over the Pearl River that separates Mississippi from Louisiana. At the end of the road, a state trooper was looking over the bridge at the flood waters still coming up from Rita. We decided to walk out and ask the trooper for directions to the Emergency Operation Center. His quick reply

was, "There ain't no EOC anymore."

I asked him where the police department was, to be told there was no longer a police station, either. When I asked about the Fire Department, the trooper reported that the entire small town of Pearlington had been basically destroyed, city government wiped away, and that all the police and fire vehicles had been under water and unusable.

He gave us directions to the former location of the EOC, then he looked at us and calmly said: "You guys need to be careful. There are old Cajun boys out here who would slit your throat and smile while they're doing it." This sent a chill through me, the only time I was personally fearful during my time at the Gulf. The trooper decided to escort us out to what he thought was the EOC, which was a fairly demolished middle school where people were staying in a shelter and food vouchers were being given out. As usual, I was very happy to see a cop in full combat gear with a .45 there literally keeping the peace.

Fortunately, that location was not the EOC. We got directions to it, back on the north side of I-10 adjacent to the Stennis Airport, and back from the coast and river. We found the new EOC, a converted high school, with the parking lot filled with trucks and emergency vans. Inside, we found a Red Cross worker, a diminutive Canadian woman, Cheryl, who had been

living in a tent on the school grounds for two weeks. In addition to the floods and devastation from Katrina, this area had also re-flooded after Rita, and was in minute-by-minute status, ready to leave at a moment's notice.

I was happy to see a 2 meter antenna on the roof and a simple dipole strung between short vertical supports. Together in one room (very similar to our Wake County, NC EOC) we found law enforcement, EMS, an Emergency Management team from Kansas City, FEMA, Red Cross, the Salvation Army, and others I could not identify. Across the hall was the National Guard command office. I asked for a tour and our Canadian guide mentioned everybody including the guys doing GPS satellite mapping of the disaster area, but she had not mentioned hams. I asked Cheryl about ham radio and she said, "Oh yes, we have lots of hams here."

Cheryl took me into the radio shack (formerly the school office) where I met one ham, Richard N6DWC from California, who was working multiple rigs at one time. It turns out that there had been 20 hams there post-Katrina and pre-Rita, but 15 of them had left due to the storm forecast for Rita and the re-flooding. Montgomery HQ had yet to send any more hams down. Richard and four other hams were left to run this very critical communications center. As the EOC and its communications cen-

ter was washed out after Katrina, the hams were the ones dispatching police, fire, and ambulance, using 146.55 simplex.

I did not have time to do a complete equipment inventory. However, the Pearlington EOC was amply supplied with donated equipment from the three major equipment manufacturers, including ICOM, Yaesu and Kenwood. Richard was running the main HF and VHF rigs off deep cycle marine batteries, wired to float chargers. He explained that initially they had to share generator power, as the large generators were still not enough to power all the critical EOC operations. And while electricity from main lines was restored, it was still intermittent, with recent losses with the winds from Hurricane Rita.

Richard was a software programmer for TIVO in the San Francisco area. When Hurricane Katrina first hit, he drove two days straight on his own, to come down and man the communications center there before other help arrived. Richard was notably worn down from sleeping on the floor for weeks, but cheered knowing that his efforts and those of his other ham volunteers were so critical.

At one point, Richard told about a fellow ham at a shelter finding a teacher in much distress. She told the ham that her school had been destroyed and that many of her students were dead by drowning. She was incredibly upset. The ham had

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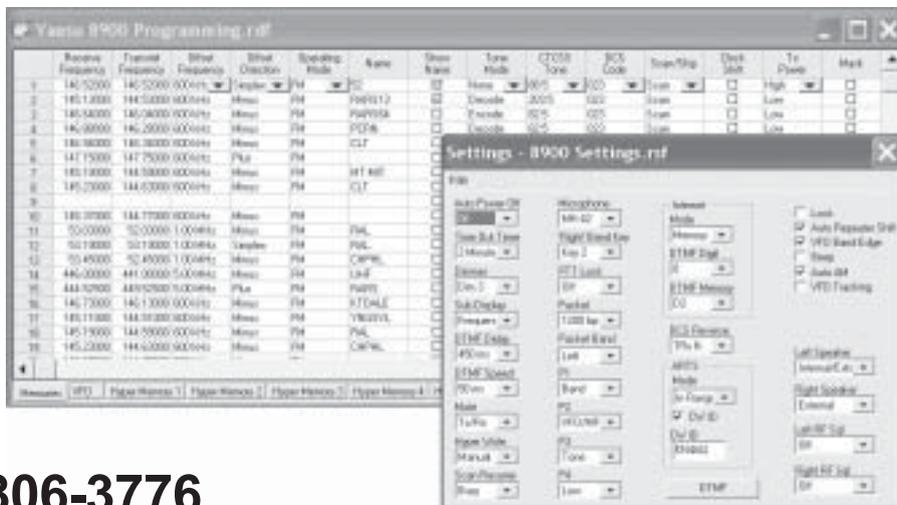
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called in to the EOC and an ambulance had been dispatched, taking her to a local medical center. Later, the ER physician called the ham and thanked him, saying that the teacher was imminently suicidal and most certainly would have killed herself out of grief if the ham had not intervened. This is the way ham radio works when it has to. I made a special note to myself to mention the bravery of Richard N6DWC and the hams manning this EOC if I was ever in a position to catalog this disaster.

My final morning before flying out, I saw Robert and Terrance at breakfast at the Red Cross HQ in Biloxi. Robert's tower was fully extended, and still guyed to the Port-A-Johns. And they were still 20 over into Montgomery.

IMPRESSIONS:

For the ham preparing to offer disaster assistance, a summary equipment list would include almost anything you would have in or around your emergency equipped shack or mobile – HF, VHF and UHF rigs; automobile or deep cycle marine batteries and chargers; gasoline generators; push-up pole supports for verticals and yagis for VHF/UHF; and commercial or homebrew dipoles for HF. As availability of the Internet (even satellite services) was slim-to-none due to infrastructure damage, hardly any ham communications was conducted by this mode, eg, Echolink or IRLP. Also, as the repeaters were basically destroyed or damaged, the majority of ham communications was point-to-point simplex, and HTs were of limited use, except for short “intercom” communications.

Assessment of the successes and weaknesses of our radio capabilities should help us in our emergency communications simulations and planning for future disasters, natural or man-made.

Although everybody who volunteered or worked this indescribable disaster in any capacity deserves many thanks, I want to especially thank all the hams: Ed, Dennis, Fred, Terrance, Robert, and Richard, and others I wasn't able to meet or get their names. They demonstrated the very best about ham radio public service, leaving their families and jobs (many would have to take this time as “vacation” or with lost pay), and sometimes placing themselves in harm's way to provide the communications backbone to a community whose people and infrastructure were devastated. The often-cited phrase about ham radio “When all else fails...” was no longer just a slogan on a Field Day T-shirt. It was the truth. ■

THE REAL THING continued from page 5

The decision was not made comfortably, however (some of you may relate to this), as I did not have any Emergency Communications training to include the ARRL course(s) and locally we had not participated in any EC training to include practical exercises with ARES, RACES, or the Local EM for some time. But I figured that my military experience would help me to pick up on operational procedures (and it did). So, not having participated in anything like this before the first task at hand was to find out who to contact and who would give permission to proceed. There had to be some type of organized dispatching.

The first place I went to was the ARRL web site where one could sign up on the *Hurricane Katrina Disaster Communications Volunteer Registration & Message Traffic Database*, but the form was clunky and hard to use. On September 2nd (Friday) the ARRL issued a news release seeking Amateurs to help with the Red Cross and in an effort to work in cooperation with the database folks solicited eager volunteers to send an email to katrina@arrl.org, which I did. That Saturday I received a reply back from Dave Patton NN1N, advising me to proceed to Montgomery Alabama, the Red Cross Marshalling area. Sweat started to appear on my forehead... I had really done it now! In addition, I still had not told my wife any of this!

This being Labor Day weekend, I had to wait until Tuesday to contact my employer and tell them my plan, which was to leave on Wednesday... no problem. So I packed my truck with all kinds of equipment and supplies. I have a Ford Ranger type of truck with an ugly topper that ended up being completely full. I borrowed a generator from my employer, and two full 5-gal fuel tanks and fire extinguishers from a local business. All the antennas and radio gear I had, most of the camping equipment I had, and food and water were the contents. At that time the ARRL had not posted the recommended vaccine shots so I called my doctor and received a Tetanus and Hep-A shot, not knowing where I would end up. Later on I discovered that I did not need the Hep-A. I then told my wife what was up...

She was OK with everything as I suspected. Being a military wife helped out – she was accustomed to my absence. Come Wednesday morning I headed out the door to Montgomery. It was

about a six hour drive, not too bad but I was a little tired by the time I arrived. The Red Cross Marshalling building was an abandoned K-Mart. The parking lot was full of rental trucks, not much else but a few cars. There were tables everywhere and people scurrying about inside. I registered with the Red Cross (required), received my ID, and then found the ARRL area and met with ARRL Alabama Section Manager Greg Sarratt W4OZK. He asked me what equipment I had brought and then directed me to a Red Cross shelter in Hurley MS, a high school. I had brought a VHF 5-element beam with me and they needed such an antenna at East Central High as it was about 30 miles northeast of the coast where Net Control was located (Ocean Springs).

After another three hours on the road and a fill up in Mobile (recommended by Greg) I arrived at the high school. It was about 9 PM, and I was dog-tired. As I approached the coast area I could see some of the destruction – it was bad. The thing that I did not think of was hooking my GPS (of which I brought) to a laptop to help with directions (da!). There were no streetlights and I could not read the street signs; it was real dark and quiet, almost spooky. I made a call on the simplex frequency as I got closer to the high school and Ron Shaffer W4VM at the Vancleave School Shelter talked me in to Hurley. There were several hams there already, all trying to help establish comms with NC with marginal suc-

WB4JM's crossband repeater package let him move around the shelter area and still stay in touch with Net Control.





ARRL Alabama Section Manager Greg Sarratt W4OZK at the Red Cross marshalling area in Montgomery

cess. We put up the beam the next morning with success and then Jim Wingate WA2EIU and I stayed while the others were sent to other locations.

We both spent several days there supporting the Red Cross and the shelter before Jim had to leave. I then spent a few days by myself, but luckily I had a Kenwood TM-732A dual band radio with cross-band repeat. I hooked up the 732 VHF side to the VHF beam, the mag mount vertical to the UHF side, and then enabled cross-band. This allowed me to be mobile walking around the school assisting the shelter manager while at the same time staying in

communication with net control via my VX-5 HT and speaker mic. This setup worked absolutely wonderful!

After several days at East Central the Red Cross moved the shelter operations, staff, and occupants to Moss Point, as the High School wanted to get ready to resume classes. Richard Lubash N1VXW happen to stop by at East Central while in route video taping some of the operations for the ARRL. He went on to the Moss Point shelter and reconned the site for the beam antenna and radio location (still about 20 miles east of Ocean Springs). Using his report and with the assistance of Steve Allee KD5RIW (a local) and his girlfriend, we moved the equipment and antenna to the new location. Shelter communications continued at Moss Point for a few days, still operating by myself with the cross-band repeat enabled.

We passed all types of traffic. There were the twice daily reports of client counts, number of meals served, security information, and just about anything one could think of concerning shelter operations. It was typical to receive a report, almost daily, of someone trying to get into a shelter who was not authorized too. They would go from shelter to shelter attempting to get food and clothing.

One call was particularly interesting. It had just turned dark and Pascagoula Kitchen made a call looking for one of their ERV's (Red Cross Emergency Response Vehicle), basically a rental truck hauling meals – it was to be back by dark but was missing. Time went by and no word of their whereabouts so the kitchen issued a 911 call. Then word came over the radio that they were at the police station in Moss Point, just about a block away from the shelter I was working at. With cross-band repeat working I headed out the door with my VX-5 strapped to my belt and my speaker-mic clipped to my shirt and ran over to the police station. I located both driver and co-driver and was told to have the folks stand by while the Red Cross HQ in Ocean Springs dispatched a contact person. In the end they just wanted to use the phones to call home and did not realize they had to be back by dark. No one was hurt or in danger but Ham Radio facilitated their return. We really were making a difference!

Then the call came in over the net that we would be ceasing operations in Jackson County at 2 PM local time on Wednesday the 14th. Cell phones were mostly operational and the landlines at Ocean Springs were back in operation. The coolest thing, however, was what our Net Control Operator (David Beatson W4LNY) did for the handful of Hams on his net. He arranged for anyone that wanted to meet at the Hospital Ship "Comfort" at Pascagoula port. We were given the opportunity to eat a good meal that night, sleep in a real bed, and have a good breakfast then next morning before departing for home. It was great! We did try to set up an HF station on the top deck that evening but the Commander was busy in meetings so we were not successful. We all left the next morning for our home QTH's with a full belly and a good nights sleep.

Some things I learned:

1. Have a small switching power supply, 50-watt VHF/UHF cross-band repeat radio, VHF beam, UHF Mag Mount vertical, and HT with speaker mic packaged ready to go – don't forget the manual to the radio.
2. Prepare to work in a scenario that uses simplex VHF from shelters to Net Control. This means a beam, mast, and good coax.
3. Have a GPS receiver hooked to a laptop for driving information.
4. Participate in Red Cross training concerning shelter operations. There were times that the Red Cross folks operated in such a way that I felt a little lost. Get the training just so you are familiar with their operations.
5. Get trained in Amateur Radio Emergency Operations.

The experience overall was just incredible. The service Amateur's provided to the Gulf Coast area was real-world necessary (reliable communications is the key). I was able to use my Amateur Radio License for public service (what we all should strive to do) and the people I met I will not forget. I would do it again in a heartbeat! ■

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