

SATERN

Salvation Army Team Emergency Radio Network

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(Salvation Army Team Emergency Radio Network)

SATERN membership statistics now total 3368. This indicates an acquisition of 585 since last years report of July 2005. The program continues to grow and since 1998, a new member has been added at least once during each week.

There continues to be in excess of 40 SATERN Nets, or on the air meetings, which occur at local, regional and national/international settings during each week of the year. The flagship or principal net is the International SATERN Net, which meets on the 20 meter amateur radio band and which is the network that all SATERN members respond to during national or international crisis. It meets and trains six days a week at 10:00 am EST. Last year, there were 2066 network meetings, with an estimated 25,325 in attendance. The daily nets provide training and testing but also serve as good public relations for The Salvation Army. They broadcast EDS bulletins, and keep people aware of ongoing SA response.

The consistent on-air network meetings attract new members and a number of them apply through our website at satern.org. SATERN has managed to interface with a number of related communications entities nationally, ARRL, RACES, REACT, The National Hurricane Center, the Hurricane Watch Net, the Maritime Mobile Network, MARS and SHARES. You can see evidence of some of the collaboration in the various enclosures in this report. These Communications groups both interface and provide collaboration for SATERN's various responses on behalf of The Salvation Army.

When a disaster occurs and SATERN activates, it seems as if the entire world listens to our frequency. During the Katrina response last year, that was the case. SATERN ran a net for 20 days straight and everyone helped. Subsequently we were able to locate 25,508 missing persons whom were being sought by their loved ones and SATERN additionally was able to participate in on scene rescues of stranded victims and guide emergency responders to their location. Computer Sciences Corporation (CSC) stepped forward to help and assigned their employees responsibility to help in the

quest for lost loved ones. They set up a special data base, met with us daily throughout the event and set up a hotline for loved ones to call and make application for assistance. The Salvation Army EDS Center in Elk Grove, with its state of the art communications system with SATERN station, had a number of volunteers running in their extraordinary complex and reportedly answered 5000 calls a day counseling and assisting friends and family with their application for Health and Welfare assistance through The Salvation Army SATERN program. SATERN personnel interfaced with a number of databases set up throughout the country through the auspices of CSC's help. The State of Louisiana, asked to use our database to help them with determining the fate of loved ones also. SATERN processed over 61,000 requests for help during Katrina.

SHARES, a government net with federal radio and Military Affiliate stations involved asked for SATERN's interface during the response. Consequently, they were able to find out important information regarding area conditions and help with Health and Welfare and emergency evacuation thanks to our interface and our assignment of tasks from the affected area. They have expressed an interest in continuing with our help in the future and there may well be a law passed eventually to that end. Currently, four SATERN members are assigned as liaisons to the SHARES radio system for future events, as they requested.

You will see a number of articles written about SATERN post Katrina in the enclosures. Over and over radio and tv stations, Internet and print media asked for stories and interviews.

SATERN continues to be a vibrant recruiting source for SA EDS volunteers and reflects the most aggressive disaster preparedness The Salvation Army, has in that its volunteers and networks run 365 days a year. It provides a monitoring, alert and response system that would be well used by local SA teams as well. If we take advantage of these folks it will enhance our ability to know of events sooner and respond expediently.

It has traditionally provided a wealth of new technically skilled volunteers for SA EDS teams across the nation and it continues to thrive in this role. Across the nation, our EDS teams benefit from the insertion of the SATERN component in its strategic response.

Next year, will mark the 20th year of its founding since 1988. We have much work to do still. It has had dynamic success and is looked upon in the emergency communications arena as integral to this nation's emergency response. It has fostered good will and relationships for The Salvation Army that we perhaps always wanted but didn't know how to achieve.

Saying that, here are some goals:

- 1) The appointment of a full time director with SATERN as his only responsibility.
 - a. This could perhaps easily be done by appointing an assistant to the current director who would then succeed him as he retires.
- 2) The appointment of a Western Territorial SATERN Coordinator.
- 3) The consistent use of The National SATERN Coordinator's Council
- 4) Appointing a SATERN communications liaison as automatic at catastrophic events.
- 5) The appointment of a volunteer SATERN liaison officer in every division to build a SATERN team in support of disaster services.

These are some items that would well serve The Salvation Army's disaster response efforts through the SATERN program.

Thanks for the opportunity to serve.

ANNUAL SATERN Statistical Report – July 2006

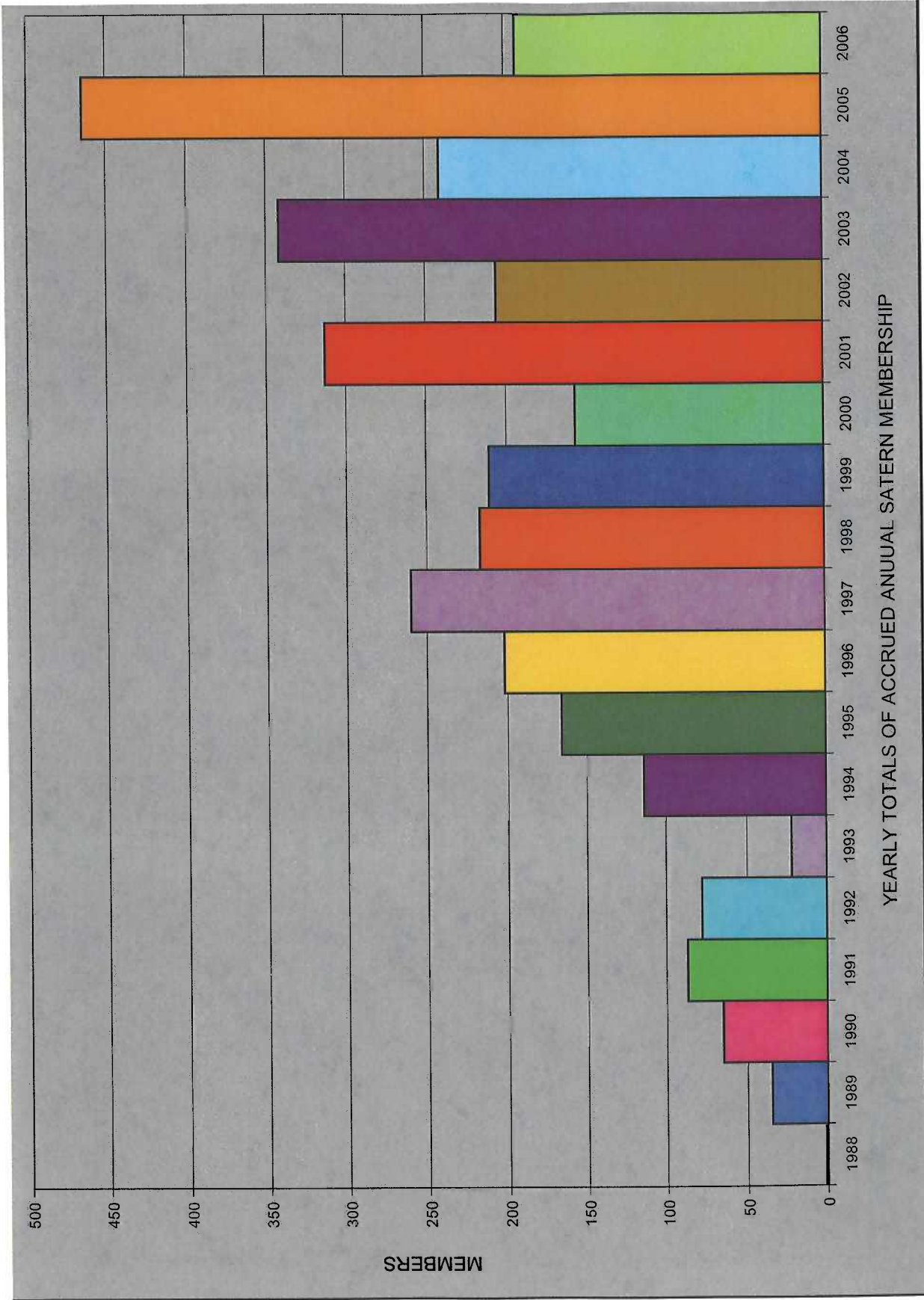
SATERN Membership List	3368
SATERN Nets (Membership meetings on the air)	2066
SATERN Net Check-ins (Attendance)	25,325
Estimated material resource available To The Salvation Army	\$10,104,000

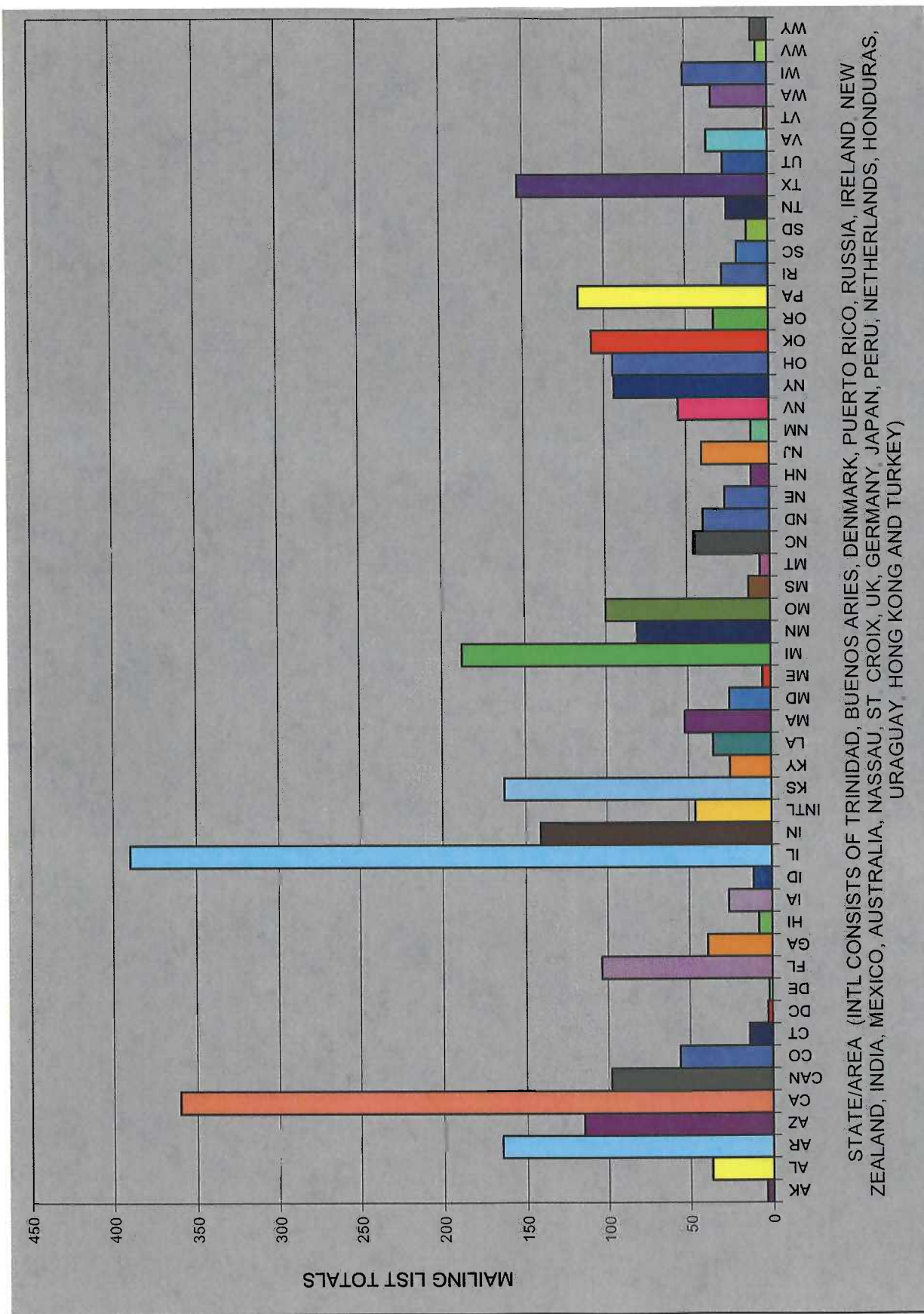
SATERN BUDGET
2006

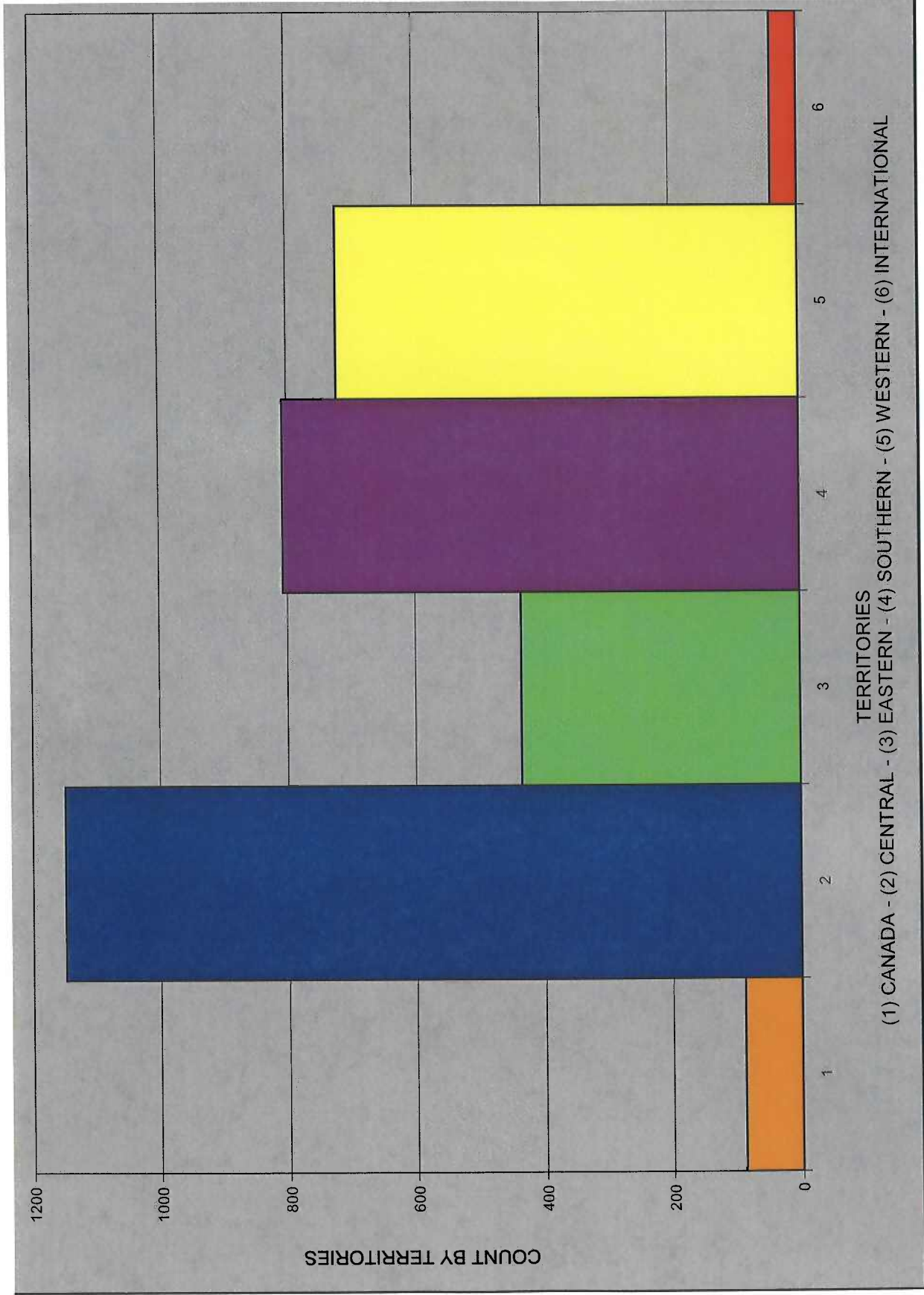
	<u>Actual</u> <u>2003</u>	<u>Actual</u> <u>2004</u>	<u>Actual</u> <u>2005</u>	<u>Proposed</u> <u>2006-2007</u>
Salaries	27671	28501	29356	30237
Employee Fringe Benefits	8800	9064	9336	9616
FICA Taxes	2117	2181	2246	2313
Professional Fees				
Supplies	3600	3708	3819	3934
Telephone	650	670	690	711
Postage	7455	7679	7909	8146
Occupancy/Rent				
Printing	2000	2060	2122	2186
Transportation/Meals	1450	1494	1539	1585
Conferences	3000	3090	3183	8278
Assistance to Individuals				
Subscriptions	45	46	47	48
Organizational Dues	50	52	54	56
Equipment & Fixed Assets	3000	3090	3183	3278
Contingency				
Support	6648	6847	7052	7264
TOTAL	66486	68482	70536	77652

ACCRUED ANNUAL SATERN MEMBERSHIP

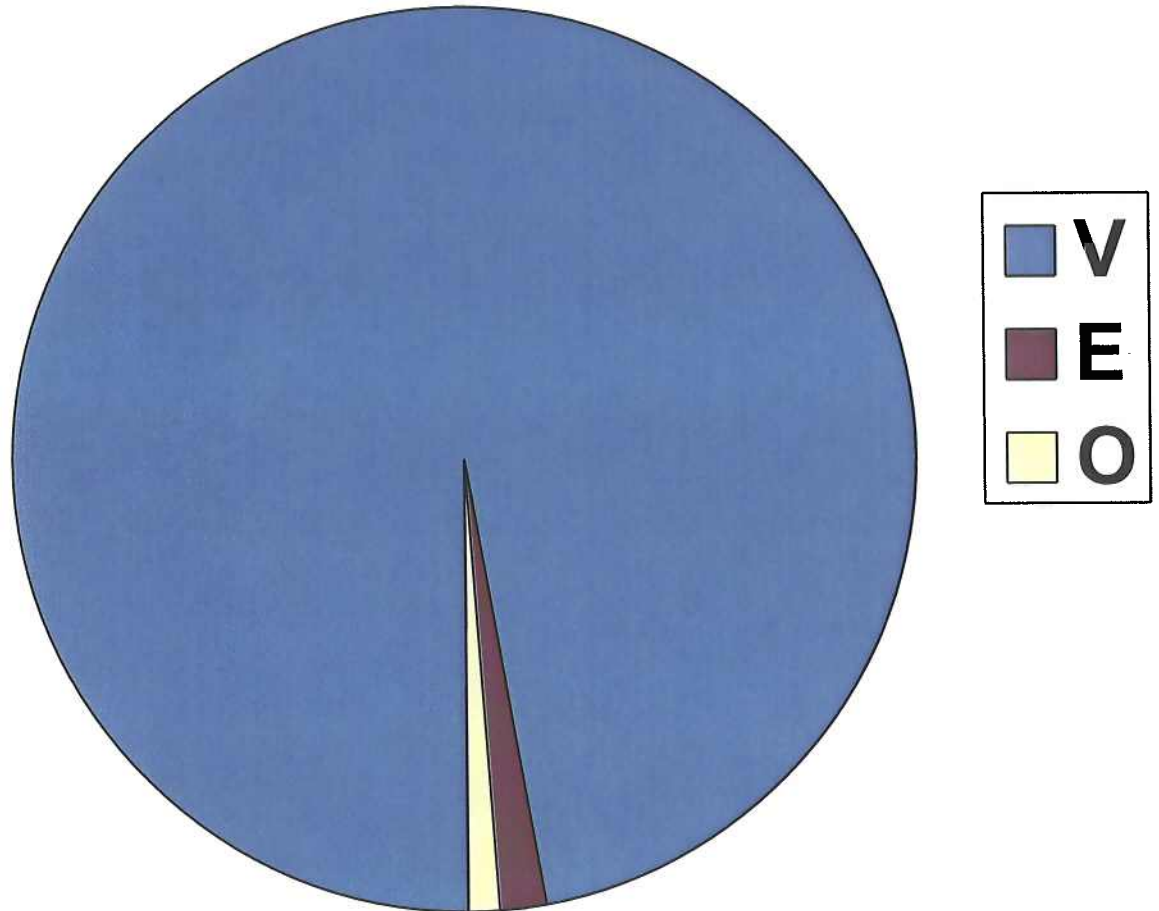
8/3/2006







SATERN



**Salvation Army Team Emergency
Radio Network
34 OFFICERS
59 EMPLOYEES
3275 VOLUNTEERS**



SATERN Volunteers Have Pivotal Roles in Rooftop, Attic Rescues

NEWINGTON, CT, Sep 2, 2005--Amateur Radio was instrumental in saving several stranded flood victims this week in Louisiana and Mississippi. At least one of the incidents received national media attention. On August 29, a call for help involving a combination of cell telephone calls and Amateur Radio led to the rescue of 15 people stranded by floodwaters on the roof of a house in New Orleans. Unable to get through an overloaded 911 system, one of those stranded called a relative in Baton Rouge. That person called another relative, Sybil Hayes in Broken Arrow, Oklahoma, whose 81-year-old aunt Helen Elzy was among those clinging to the roof along with other family members.

Hayes called the American Red Cross chapter, which contacted the Tulsa Repeater Organization. Using the Red Cross chapter's well-equipped amateur station, TRO member Ben Joplin, WB5VST, was able to relay a request for help on Salvation Army Team Emergency Radio Network ([SATERN](#)) net on 14.265 MHz via Russ Fillinger, W7LXR, in Oregon, and Rick Cain, W7KB, in Utah back to Louisiana, where the ARES net contacted emergency personnel who rescued the 15 people and got them to a Red Cross shelter.

"When all else fails, Amateur Radio works is more than a catchy tag line," says TRO's Mark Conklin, N7XYO. "It's a lifeline." National Public Radio [interviewed Joplin](#) about the experience for its "All Things Considered" program on August 30.

Fillinger and Cain got attention from regional media for their role in the rooftop rescue.

Cain passed along a similar piece of traffic a day earlier after he got a message that a police officer was stuck in the attic of his house. Although the policeman had a cell phone, he was unable to call his office in New Orleans. Cain relayed the information to others on the SATERN net, but he still doesn't know how the police officer's message reached him or if the man was rescued.

SATERN National Net Director Jim Adams, WA0SLB, reports he got a call on the net August 29 from Bill Simpson, KE4WRH, seeking help in locating two elderly men trapped in their attic in Gulfport, Mississippi, with the water rising. The stranded men, identified as Steven Calcote and John Young, called Simpson because they remembered that he was a radio amateur.

"After receiving the traffic, I tried to get a station on frequency who could deliver the message to authorities, but no stations were on," Adams recounted. After turning over net control duties to Tom Buchan, N9AL, he started making telephone calls, but had no luck. He then called Quentin

Nelson, WA4BZY, in Georgia, who's SATERN's national health-and-welfare director. Nelson was able to contact Salvation Army Capt John Robbins, who, in turn, got in touch with Mississippi State Patrol. Authorities were able to rescue the two men.

Adams says the net handled at least two other messages relating to individuals trapped in attics with the water rising. The net also took some 700 health-and-welfare inquiries during its first 12 hours on the air following Hurricane Katrina. By week's end, the number of H&W inquiries had ballooned to more than 12,000, and SATEN was shuttling those to its Web site.



Red Cross and SATERN volunteer Ben Joplin, WB5VST, in Oklahoma City, is interviewed by local news media after getting word through to Louisiana officials that 15 people were stranded on a roof there. [Mark Conklin, N7XYO, Photo]

Fillinger, a SATERN net controller, also was part of the mix August 29 when the net got word of a family of five trapped in an attic in Diamond Head, Louisiana. The family used a cell phone to call out, but it's not known whom they contacted initially. Bob Rathbone, AG4ZG, in Tampa, says he checked the address on a map and determined it was in an area struck by a storm surge.

Acting on a sudden inspiration, he called the US Coast Guard search-and-rescue station in Clearwater, explained the situation and relayed the information. At this point, the US Coast Guard office in

New Orleans was out of commission.

"Two other emergency calls came in with people in trapped in attics," Rathbone said. "That day the SATERN net gradually changed from health and welfare to handling more and more priority and emergency calls."

Rathbone said he was rewarded an hour later by a call from the South Haven Sheriff's Department in Louisiana, which informed him a rescue operation was under way.

"Another search-and-rescue operation I ran with involved three people stuck on a roof, and one was a child," he said. The person was able to send a text message from a cell phone to a family member in Michigan. Once again, the US Coast Guard handled the call.

"Ham radio works when all else doesn't," he concluded.

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Radio Rescues in the wake of Katrina

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In the Wake of Hurricane

June Stirrat G4DGX is the UK/Europe Co-ordinator for SATERN - the Salvation Army Team Emergency Radio Network.

SATERN volunteers include crisis hardened veterans who have responded to many very serious events and disasters from Hurricane Mitch and the Turkish earthquake, to "Nine-Eleven" and beyond. They watched Katrina's approach with awe and apprehension, acutely aware of the potential for devastation and well aware that much of the Gulf region is close to, at or below sea level. SATERN is the Salvation Army Team Emergency Radio Network.

Major Patrick McPherson WW9E called for a net activation on 14.265MHz, at 1900UTC on Saturday 27th August 2005. On Sunday 28th August the FCC issued an order declaring 14.265MHz an emergency protected frequency for SATERN controlled net use on an exclusive basis. The guard band was from 14.262 to 14.268MHz to keep the frequency clear. SATERN's normal strength of 8 Net Control Operators (NCO) was expanded to 35. Rostered for duty in blocks of one hour periods, when not NCO, stations remained on radio watch, on the 'Flagship Frequency', or elsewhere such as the Hurricane Watch Net on 14.325MHz. Some operators were running as little as 100 watts, but most ran 2000 watts PEP into large beam antennas. Being at the bottom of the sunspot cycle made maintaining communication a challenge and solar flare activity did not help.

On a normal day, between 40 and 60 stations log into the SATERN net. This immediately rose to around 1000 but there were many more stations listening and relaying traffic into the net control station.

Meanwhile, in Georgia, SATERN's Health and Welfare message co-ordinator, Quentin Nelson WA4BZY, was dealing with a specialist aspect of the operation. SATERN is an official affiliate of the United States Salvation Army and handles Health and Welfare enquiries from members of the public seeking missing relatives or friends.

Enquiries came in at the rate of around 500 per hour.

At first they numbered thousands, but quickly increased by tens of thousands to 60,000 at the last count. As more volunteers were called for and extra telephone call centres were set up, a commercial computer company offered help in handling the avalanche of traffic and interfaced their hardware and software with the SATERN system to provide IT solutions.

Rescue Stories

Amateur radio came to the rescue of Katrina victims countless times. One such occasion was when about 100 young women were rescued from the fourth floor of a New Orleans hotel as the direct result of a radio operator contacting the Coastguard, who then relayed the message to another agency.

On another occasion, two men in their 70s were rescued from an attic in flooded Mississippi when amateur frequencies were used by SATERN to contact the State Highway Patrol, who quickly arranged their recovery by a rescue boat. SATERN fell into an efficient and repeatedly successful working relationship with the US Coastguard, relaying distress messages directly to USCG, who in turn deployed their airborne assets to carry out helio-extraction of victims.

A theme along the lines of 'Saving Private Ryan', was played out in reverse when a US Marine Corps Corporal made a calm, but impassioned plea to SATERN, requesting help in locating his father, mother, brother and niece, who lived in Gulfport Mississippi and had apparently disappeared.

A SATERN co-ordinator made radio contact with a mobile SATERN station that was en-route to the Gulf coast and asked them to carry out an 'on the ground' search for information about the missing family. When they arrived in



Ed Marney W4AGA at Yankee Stadium, Biloxi. Despite having one leg, Ed responded early on, set up, camped out and passed messages up to September 16th.



e Katrina

the area, the SATERN unit began a search and, after a long and thorough effort, discovered the whereabouts of the marine's mother. She was safe and well in a shelter. A phone patch to Iraq was soon set up and the mother was able to talk directly to her son and reassure him that all of his family were safe.

Emergency Supplies

Immediately prior to the landfall of Katrina, the US Salvation Army pre-positioned mobile Emergency Disaster Services assets on the edge of the anticipated zone of destruction, ready for deployment to their ground assignments when the storm ceased. Salvation Army Communication Teams (SAC Teams), were embedded with many Emergency Disaster Services units and deployed with them, establishing HF stations in the field and providing on-site VHF communications for relief workers. This was normally done by the 'shadow method' whereby an amateur radio operator shadows their 'principal' in the traditional army combat signaller style and hands the handset to the 'principal' when the latter needs to use it.

A SATERN team of three operators set up a station at the Yankee Stadium at Biloxi, Mississippi. One of those operators, Ed Mamley W4AGA, is severely disabled through having lost a leg, however his spirit of determination cannot be quenched and he volunteered for the mission with a complete disregard for the physical discomforts that it would entail.

As the second week of the endeavour began, US Federal authorities took a remarkably innovative step. SATERN was invited to join the US government's SHARES (Shared Resources) HF programme. Major McPherson and several other SATERN members were authorised to use Federal HF frequencies and pass traffic directly to government agencies using their amateur radio call signs. This is the first time in history that US amateur radio stations have been allowed to operate outside of the amateur bands using their amateur call signs and it serves as a benchmark of the respect with which SATERN is viewed by the Federal authority. The SHARES High Frequency Programme first came into being in the 1960s as a result of the Cuban missile crisis and is the doomsday network of government and corporate stations, with Federal and military call signs.

Table 1: Amateur Frequencies used by SATERN in the aftermath

14.265MHz	SATERN NATIONAL Primary
7.265MHz	SATERN Regional Primary
7.251MHz	Alternate
7.280MHz	Alternate
7.288MHz	Alternate
3.965MHz	SATERN Regional and Night Use.

Examples of VHF frequencies used:

Forest	147.315MHz
Gulfport	146.880MHz
Harrison	146.730MHz
Jackson	146.940MHz

Table 2: SHARES Frequencies activated for use in the aftermath

14.3965MHz	Primary Day Time	National Frequency Channel 6
14.455MHz	Alternate Day Time	National Frequency Channel 7
7.632MHz	Primary Night Time	National Frequency
9.064MHz	Alternate Night Time	National Frequency
5.901MHz	Alternate Night Time	National Frequency
3.216MHz	Primary Night Time	Regional
3.361MHz	Alternate Night Time	Regional
4.513MHz	Alternate Night Time	Regional

Table 3: The Ground Assignments of some operators in the Gulf region

Paul N0AH	Pascagoula
Richard K5SF	Longbeach
Steve N5AC	Longbeach
John N5OOM	Longbeach
Tom WA2VD	Longbeach
Debraah N2LZN	Longbeach
Ed Mamley W4AGA	Yankee Stadium Biloxi
Mike WD0GSY	Yankee Stadium Biloxi
Dave KC6YNC	Yankee Stadium Biloxi

To find out more about SATERN please visit www.satern.org

Designated SATERN amateur radio stations used SHARES frequencies to pass emergency traffic to MARS, the US Military Affiliated Radio Service.

Relaying Messages

During the worst periods in the aftermath of the disaster, some Gulf coast residents managed to make contact with friends and relatives living outside of the storm area by telephone calls and E-mails. When friends and relatives contacted the Salvation Army, their messages were passed to SATERN who in turn relayed them to MARS, so that MARS could then route them to military and other responders in the stricken area. The messages were endless.



"...He is elderly and stranded upstairs. No water, no food, no meds. Has health problems."

"...Handful of seniors in a senior building. Right off Lake Ponchartrain. They are on the tenth floor and running out of food."

"...Stranded in girls' dormitory with dozens of other students in the upper levels. Lower levels are flooded. No food or water. Please rescue. Girls are from all parts of the USA."

Early in the second week, Jeff Schneller N2HPO, SATERN's Amateur Radio Liaison Officer for Greater New York, who had earlier deployed to Mississippi to run the SATERN operation there, sent out an urgent appeal for more expeditionary volunteers.

Volunteers had to have their own transport, be fully and adequately self-equipped for HF and carry their own camping equipment. A convoy of radio vehicles left Jackson Tennessee and headed for the Gulf coast, loaded with antennas and equipment and sometimes pulling small trailers loaded with potable water and unleaded gasoline.

Volunteer radio operators in the field kept stations active 24/7. By day they would power up from a generator, or let a generator run to charge batteries. By night they would switch the generator off and go to battery mode, to reduce local noise level so the off duty operator(s) could rest quietly, or sleep, while they maintained a listening watch for traffic on a frequency suitable for propagation during the hours of darkness.

The Katrina response differed from the 9/11 response in one very significant way. The 9/11 response was one of convergence on a comparatively small ground zero zone, where a vast amount of communication took place over short ranges on VHF. By contrast, the Katrina response was one of divergence over a huge area, all of which amounted to a ground zero zone, where vast amounts of traffic needed to be sent over HF.

Co-operation

One feature of the radio amateur endeavour was co-operation. As survivors were flown in to Buckley Air Force Base at Aurora, Colorado, SATERN members combined with Colorado ARES, the Amateur Radio Emergency Service, to pass information about arriving aircraft to the Colorado Emergency Operations Centre. SATERN also maintained

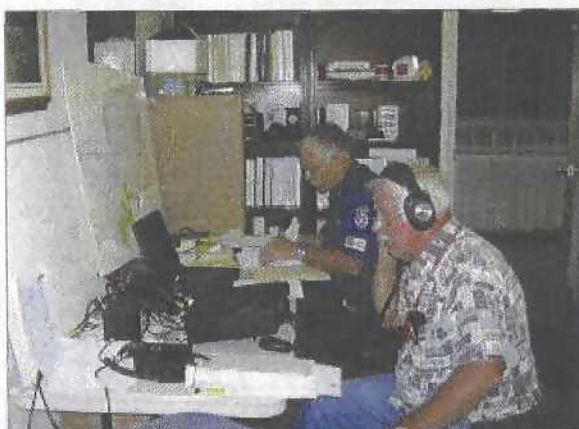
interoperability with MARS, the Military Affiliated Radio Service; RACES and the Red Cross, as well as maintaining a private link with the USCG. The 'T' in SATERN stands for 'Team' and the strong ethos of teamwork extends both inwards and outwards.

By the middle of the third week, a sufficient amount of the normal telecommunications infrastructure had been brought back into service, and as this happened the need for emergency HF decreased and the radio operation began to wind down. Some expeditionary units

returned to where they had come from and some stayed on to help with the general relief endeavour.

At the onset of Hurricane Katrina, the SATERN Net on 14.265MHz went into Emergency Mode. Controlled net operation from dawn to darkness, from the moment early morning propagation started until the time propagation had faded for the night. This continued for twenty days, up until the September 16th, when SATERN stood down from Emergency Mode and resumed Normal Mode.

In Normal Mode, the regular net meets at 1400UTC each day and begins with a call for any Emergency, Priority, or Time-Value traffic. Thereafter there is a call for any mobile or QRP stations, with or without traffic and this is followed by general check-ins. The net closes when the check-ins are complete, but SATERN stations monitor the frequency throughout the day for any emergency traffic that might arise and will do so as long as is needed. SATERN has no heroes, only team players who are willing to pro-actively lean into the mission and contribute whatever they can. ■



Mark KREBYMN (background) and Richard WEBBITZ at their desks in the US Salvation Army divisional HQ, Jackson, Tennessee.



Mark KREBYMN with his own emergency vehicle, complete with emergency lights.

