

Hurricane Katrina and ARES

In any disaster area, coordination between multiple and varied relief teams is of the utmost importance for the rapid and efficient dispersal of aid. Unfortunately, in those same disaster areas, traditional communications backbones such as phone and internet are likely to be out-of-service, either due to physical damage or severe congestion. Many times power is also unavailable or at best sporadic and unreliable. Fortunately, however, there are groups of people known collectively as ARES groups, of the Amateur Radio Emergency Service, who are trained for operation under those disaster conditions. Using a variety of time-proven strategies and methods as simple as pre-arranged message formats, during Hurricane Katrina ARES members were able to establish reliable communications networks and also relay messages to each other in a clear, concise, and efficient manner.

When Hurricane Katrina hit the shores of Louisiana on August 29, 2005, what started out as a Category 1 hurricane quickly turned into a Category 5, leaving many people stranded without power, water, or communications. As soon as the storm began to dissipate 2 days later, however, hundreds of ARES operators were on the scene coordinating communications between hospitals, the Red Cross, the highway patrol, and other federal, state, and local agencies (“Earning Praise,” 2005). VHF/UHF frequencies were used for local coordination, and HF frequencies for national coordination (“Volunteers,” 2005). For example, in neighboring Mississippi, ARES members were dispatched to hospitals and evacuation shelters to assist overwhelmed 911 call centers. In Texas and Alabama, ARES members and local hams stationed themselves at airports to log residents of New Orleans who had been able to fly out of the area so that families could find their whereabouts (“ARRL President,” 2005).

Throughout the entire operation, the HF frequencies 7.285 MHz days / 3.935 MHz nights were used as part of the West Gulf Emergency Net. When the amount of health-and-welfare traffic began to rise as families began contacting the Red Cross to find out information on their loved ones, another pair of frequencies (7.290 MHz days/3.935 MHz nights) came into use to provide additional communications throughput (“Volunteers,” 2005).

A particularly shining example of the immediate positive impact of ham radio came from the efforts of an operator located in Tulsa, Oklahoma who was affiliated with the local Red Cross chapter. Having received information that a family of 15 was stranded on a rooftop in Louisiana, operator Ben Joplin was able to relay that information to a station in Oregon, who then relayed the message to Utah, and then to New Orleans. Finally, the information was passed to the local highway patrol, whose officers were then able to rescue the family of 15 (“Amid Breakdown,” 2005). This relay effort is only a small example of the efficacy and need for ham radio during disaster conditions.

With ham radio, all communications are decentralized and do not require commercial infrastructure. The only requirement is that each station provide its own radio equipment and antennas, either previously bought or improvised on the spot. In fact, even the most basic antenna, a long wire thrown between two trees, used with the most basic radio sending morse code, can be extremely effective during disaster situations. Note also that virtually all ham radio rigs are designed to run with on 12 volts, the standard vehicle battery voltage. This point is not accidental. Since rigs often will accept anywhere between 11-16 volts, batteries can be brought in from unaffected areas to provide continuous power and communications in the affected area.

In sum, trained ARES operators can quickly provide an immense benefit to disaster areas through reliable communications networks which can be set up on the spot and do not require

any centralized infrastructure to operate. While many people may believe that ham radio is but a dying hobby, disasters such as Katrina highlight the need and utility of maintaining the ham radio tradition for years to come.

References

- Amateur Radio Volunteers Involved in Katrina Recovery. (2005). Retrieved April 21, 2007, from <http://www.arrl.org/news/stories/2005/08/30/1/?nc=1>
- Amateur Radio Earning Praise, Respect in Hurricane Katrina Relief. (2005). Retrieved April 21, 2007, from <http://www.arrl.org/news/stories/2005/09/16/100/?nc=1>
- Amid Breakdown, Ham Radio Helps on Gulf Coast. (2005). Retrieved April 21, 2007, from <http://www.npr.org/templates/story/story.php?storyId=4824598>
- ARRL President Submits Congressional Testimony on Hams' Katrina Response. (2005). Retrieved April 21, 2007, from <http://www.arrl.org/news/stories/2005/09/15/100/?nc=1>
- Griffin, R., & Thompson, B. (1996). ARRL Public Service Communications (PDF) Manual. Retrieved April 21, 2007, from <http://www.arrl.org/FandES/field/pscm/index.html>