

# Amateur Radio Emergency Communications

## Town of Huntington ARES/RACES



## What is Emergency Communications?

Every major disaster throughout the entire world represents sudden local emergency conditions where loss of life, limb, property, necessary resources and even the ability to call for help have been forced upon people somewhere. When the news story breaks and we hear about it in the midst of our daily lives, the story is about the event itself and the extensive upset to life at the scene. However, somewhere in those initial reports, you usually hear that it was some local ham radio operator who was first able to re-establish communications and get out the call for help. They're usually first, they're usually there, and they usually get it done!

In our country, these reliable, highly trained, and dedicated amateur radio or "ham" radio operators are the same people you know as friends and neighbors. Amateurs they are, as they receive no pay or compensation for the services they eagerly provide in such times of crisis. The pure satisfaction of provisioning extremely effective civil emergency communications is their fulfilling reward. You'll recall that it was ham radio operators who provided the first communications downtown on 9/11 when the WTC disaster eliminated electric power, radio, television, and even NYC emergency communications were disrupted. Hams established communications within a few hours, while it was days before anything else approached normal. And that was right here at home!

Amateur Radio ("ham") Operators must be trained and skilled in many aspects of communications and radio technology in order to pass strict federal licensing examinations to earn their Federal Communications Commission issued licenses and radio "call sign." In very real terms, they are anything but amateur in the performance and utilization of their skills. They own and maintain their own radio equipment and are responsible for all aspects of the operation of their radio stations, whether it is from a fixed base location, a mobile station, portable station, or from aircraft or marine locations. Hams have built, orbited, and operated their own satellites since 1961, only 4 years after the world's first satellite, Sputnik, blazed the skies. Hams are for real, and they are an incredibly valuable asset to the world, all the time!

Why use Amateur Radio? The answer is simple and obvious, and it's because amateur radio equipment is independent of commercial radio services like telephones, cell phones, and even Police, Fire, and EMS service radio services, which are very limited in frequency and interoperability. Ham radio (Amateur Radio) is inherently frequency agile and readily portable, thus it is ideal for emergency dependability. Many hams are able to pick up and go, and set up communications on a moment's notice from almost anywhere. Many do just that for the enjoyment of it. You'll see hams in the parks and around towns providing supporting communications for public events like parades, marathon runs, etc. Such events are easy practice for hams, yet major events like the Boston Marathon and the New York Marathon critically depend on them because hams get the job done.

## The ARES and RACES Organizations

The Amateur Radio Emergency Service (ARES) is an organization of the American Radio Relay League (ARRL), which serves local government and civilian agencies. ARES and the ARRL provide enhanced communications training and certifications. The Radio Amateur Civil Emergency Service (RACES) is an arm of the federal and state governments utilizing amateur radio operators as a decentralized resource in times of emergency. This organization also provides training and certifications. Often ARES and RACES members are called in from afar to aid those in a disaster area. Many ARES and RACES members responded to the call for help on 9/11 and provided communications downtown when the existing communications failed.

Amateur Radio Operators, working through ARES and RACES, serve many agencies such as The American Red Cross, the National Weather Service, FEMA, the Salvation Army, Hospitals and EMS-Police-Fire services in times when the usual communications fail or become overloaded during emergencies. As one Section Administrator of the Red Cross stated in retrospect to the WTC disaster of 9/11: "In this day and age of modern technology, we still need to rely on Amateur Radio Operators. We would have been lost without them."

## **Becoming an ARES/RACES Member**

To be a public service volunteer requires different demands and different attitudes and skills than does the normal amateur radio hobbyist. The volunteer has to have a strong motivation to help a client organization or the community when needed. He/she recognizes the importance of dedication, motivation, training, and cooperation, in getting the job done. This includes occasionally taking direction from authorized leaders in ARES/RACES, and in those organizations that are served. To become and continue to be an ARES/RACES member, the ham must accept these challenges and responsibilities. Your ARES/RACES leaders are well trained and experienced hams, both in the technical aspects of communication and in emergency response. It is a distinct honor and privilege to be a member of the ARES/RACES organizations. Assignments are to be given only to those ARES/RACES members who are properly motivated, trained, and equipped for the mission. Assignments are always made on a volunteer basis to those personnel who are available and are best qualified for the job.

## **Training**

The Emergency Communications Training Course is posted at [www.WB2LUA.com](http://www.WB2LUA.com). It is broken down into three parts. Part 1 is procedures. Part 2 is technical. Part 3 is Emergency Preparedness.

## **Meetings**

There is a Town of Huntington ARES/RACES meeting on the first Wednesday of almost every month at 7:30 pm at the Senior Citizens Center in Huntington. See [www.WB2LUA.com](http://www.WB2LUA.com) for more information.

## **Mini Field Day**

There are Mini Field Days during April, May, September, and October. This is a great time to talk to other members, enjoy the food, and experiment with equipment and antennas.

## **Simulated Emergency Test**

The simulated emergency test (SET) is conducted simultaneously with the October Mini Field Day. The object of the SET is to test our capabilities and to gain experience in emergency communications. During the SET, we simulate a hurricane that disabled all utilities including phone lines, cell phones, and possibly some of the police/fire lines of communications. We set up communications posts at the EOC, hospitals, shelters, police, fire, etc.

A storm surge prediction program used by forecasters called SLOSH (Sea, Lake, and Overland Surge from Hurricanes) has predicted that in a category 4 hurricane, John F. Kennedy International Airport would be under 20 feet of water and sea water would pour through the Holland and Brooklyn-Battery tunnels and into the city's subways throughout lower Manhattan. New York's major bridges such as the Verrazano Narrows and the George Washington are so high that they would experience hurricane force winds well before those winds were felt at sea-level locations. Therefore, these escape routes would have to be closed well before ground-level bridges (Time, 1998). The two ferry services across the Long Island Sound would also be shut down 6-12 hours before the storm surge invaded the waters around Long Island, further decreasing the potential for evacuation.

Given public complacency, the amount of people needed to evacuate, the few evacuation routes off Long Island, and the considerable area affected by storm surge, more lead-time is needed for a proper evacuation than in other parts of the country. However, east coast hurricanes are normally caught up in the very fast winds aloft, called the jet stream, so they can move up the coast at great speeds - much faster than hurricanes that impact the southern U.S. In fact, the 1938 Hurricane moved at forward speeds in excess of 60 mph. The bottom line is that there is no evacuation off of Long Island in the event of a hurricane even with two days notice.