

SOUTH CAROLINA HEALTHCARE AMATEUR RADIO TEAM (SCHEART)

The seeds for the South Carolina Healthcare Amateur Radio Team (SCHEART) project were first planted when hams and engineers in the Charleston SC area decided to place amateur radio equipment within local hospitals and support them with a network of "repeaters" that amplify communications signals. The Charleston-area initiative, known as the Hospital Emergency Amateur Radio Team (HEART), was envisioned and developed to support patient evacuation out of this hurricane-prone region.

The success of the HEART system led to the crafting of a similar system that placed strategically-linked repeaters around the state and linked them to form a statewide emergency communications network, known as SCHEART. These repeaters reach the majority of the sixty-plus hospitals that receive funding and support from the Hospital Preparedness Program under the Office of the Assistant Secretary for Preparedness and Response. This redundant communications network is located at broadcast and microwave towers owned and operated by the South Carolina Educational Television Network (ETV). The repeaters are linked together using the ETV microwave network for the benefit of the SCHEART initiative.

Phase One

Phase One of the SCHEART project provided for all the equipment necessary to install seven UHF hub repeaters in the state. Federal funding for this came from a grant administered by the South Carolina Department of Health and Environmental Control (DHEC). ETV provided the project management and purchases were made through the State of South Carolina purchasing system. The repeaters were installed at Beaufort, Charleston, Columbia, Conway, Florence, Greenville and Orangeburg. Additionally, funds from the Greenville Hospital System and the Medical University of South Carolina (MUSC) were provided to allow for two additional hub repeater installations: one at Caesars Head in the upstate and the other at Charleston/Awendaw in the low country.

Phase Two

Phase two of the SCHEART initiative is an expansion to a second network of linked "VHF repeaters", and two additional repeaters sites (Beech Island and Rock Hill) to fill in gaps in the statewide coverage areas.

The SCHEART linked repeater system has two analog voice channels: one on UHF to support healthcare and hospitals, and a VHF voice channel that can be used for additional emergency traffic over wide areas of coverage. The system also has a digital voice (DMR) repeater network on most all the SC ETV towers. Also a V-SAT emergency communications trailer to support hospitals statewide. These are fully integrated into SCHEART, these components give trained amateur radio operators the ability to communicate in an emergency using proven technologies that ensure maximum equipment interoperability.

SCHEART Support

The SCHEART system is the result of the cooperation of the Amateur Radio Emergency System, Radio Amateur Civil Emergency System, AT&T, City of Charleston, Medical University of South Carolina, National Weather Service, NC Carolina Amateur Radio Emergency Services, NC Healthcare Emergency Amateur Radio System, SC Department of Health and Environmental Control, SC Department of Mental Health, SC Educational Television Network, SC Emergency Management Division, the SC Hospital Association, SC National Guard, SC State Guard, USC Center for Public Health Preparedness, York Technical College and other concerned state and local agencies/organizations.

Until July, 2012 SCHEART, SC ETV and the University of South Carolina Center for Public Health Preparedness (USC-CPHP) conducted ham training classes and recruits licensees to become radio response team (RRT) members. The ETV / USC-CPHP, in partnership with the state Amateur Radio Emergency Services (ARES) organization, has conducted facility assessments of all South Carolina hospitals in order to provide recommendations for the purchase and installation of ham radio equipment. The ETV / USC-CPHP also coordinated the participation of hams in state, regional and local training exercises. The SCHEART licensing classes, Radio Response Teams, facility assessments, and exercise participation are intended to achieve the ETV / USC-CPHP's vision of each hospital and healthcare entity in South Carolina having a dedicated cadre of ham operators trained, credentialed and ready to support the facility in an emergency or whenever communications are crippled and lives are in jeopardy.

After July, 2012 USC - CPHP was closed and SC ETV took over the role of continuing the SC HEART program. SC ETV has continued to provide amateur radio license training, participation in site, regional and local training exercises.

A major force behind the statewide system was John Crockett, W3KH (SK). He was the VP for Engineering at SC ETV.

The SCHEART system is documented on the website [HTTPS://SCHEART.US](https://scheart.us) Also SC has a statewide HAM communications plan for emergencies that provide detailed information on operation and use of the SCHEART network.