



SC Educational Television (ETV) crew prepares to raise cable.

The SC Healthcare Emergency Amateur Radio Team (**SCHEART**) is an initiative to establish amateur radio systems for South Carolina hospitals and healthcare facilities. **SCHEART** supports the systems with a network of strategically-located repeaters that can be linked together to form a statewide emergency communications network (**SCHEART**). The repeaters will reach a majority of the State's sixty plus hospitals.

This completely redundant communications network is located at broadcast and microwave towers owned and operated by the SC Educational Television Network (ETV). The repeaters are linked using the ETV microwave network as a communications backbone. ETV owns and maintains this emergency communications network for the benefit of the **SCHEART** initiative and ultimately the citizens of South Carolina.



Bridging the Public Health Community

D H E C



PROMOTE PROTECT PROSPER  
South Carolina Department of Health  
and Environmental Control



University of South Carolina  
Center for Public Health Preparedness (USC-CPHP)

SOUTH CAROLINA HEALTHCARE  
EMERGENCY  
AMATEUR RADIO TEAM

**SCHEART**



**SCHEART**  
South Carolina  
Healthcare Emergency  
Amateur Radio Team

**First, there was HEART...**

A group of concerned amateur (ham) radio operators and engineers at the Medical University of South Carolina (MUSC) saw a need to establish a backup communications system to support hospitals along the South Carolina coast during major disasters. As a result, they initiated the *Hospital Emergency Amateur Radio Team (HEART)* project for emergency response.

**Next, there was SCHEART...**

The original **HEART** system was expanded to a statewide, redundant communications system now known as the *South Carolina Healthcare Emergency Amateur Radio Team (SCHEART)*.

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<http://www.scheart.us>



## SCHEART ♥ PARTNERS

The **SCHEART** System is the result of the collaboration among the following partner organizations:

Aiken County Emergency Management Services

Amateur Radio Emergency Services (ARES)

American Radio Relay League (ARRL)

Carolina Amateur Radio Emergency Services (CARES)

Hospital Emergency Amateur Radio Team (HEART)

Medical University of South Carolina (MUSC)

South Carolina Civil Air Patrol (CAP)

South Carolina Department of Health and Environmental Control (SCDHEC)

South Carolina Educational Television (ETV)

South Carolina Emergency Management Division (SCEMD)

South Carolina Hospital Association (SCHA)

York Technical College

# SCHEART

**SCHEART** is South Carolina's initiative to establish a redundant communications system using a series of linked repeaters that allow amateur (ham) radio to support hospitals statewide.

- ♥ All hospitals in South Carolina currently participate in **SCHEART**
- ♥ **SCHEART** partners designed a statewide redundant communications system serving:
  - All 8 public health regions
  - All 46 counties' ESF-8 (Health and Medical Services) personnel
  - Relationships with some ham groups in bordering states
- ♥ **SCHEART** is working with the SC Department of Mental Health to assess their facilities and begin training their personnel
- ♥ **SCHEART** volunteers provide their technical expertise by:
  - Assessing hospitals' needs for equipment and critical infrastructure, and providing recommendations
  - Partnering with local healthcare facilities to train staff to use ham radio equipment in an emergency, until an operator from the community arrives. (Ham radio operators are being recruited to join Radio Response Teams, or RRTs, dedicated to helping their local agencies during drills, exercises, and emergencies.)
  - Providing support at training classes for new ham operators
  - Participating in preparedness drills and exercises
  - Leveraging funding, reconditioning equipment, providing technical assistance, creating infrastructure designs, and offering engineering support to help advance this initiative.

## SCHEART Network Repeaters:

### Locations in Relation to SC Hospitals

When completed, the SCHEART linked repeater system will have:

- ♥ Two analog voice channels, one on UHF
- ♥ VHF voice channel for additional emergency traffic over wide areas of coverage
- ♥ One digital voice (D-Star) channel linked from Charleston to Columbia and Greenville
- ♥ Wide-area, high-speed Internet network (D-Star) in the Charleston area, and
- ♥ Emergency communications trailer and a radio-based email system to handle email messages.

These systems will allow trained amateur radio operators to communicate in emergencies using proven technologies that will ensure maximum equipment interoperability.

