

DFMA Repeaters

[click here for system map]

The text below describing the DFMA's extensive repeater system includes representative pictures for each site. For more complete and detailed picture coverage of the system, check out the Picture Gallery. All photos by NC4CD. (Thanks Charlie!) The Hillsborough Repeater Site - WR4AGC

Top of the Hillsborough Tower with the 225 antenna at the peak. (photo by NC4CD)

The Hillsborough site includes the following repeaters.

- 147.225+ repeater driven by a Kenwood Transceiver and a TPL power amplifier. There is no receiver at this site for this 2 meter repeater. Instead input from a number of remote receivers is relayed to the site and the best signal is selected by a Hall voter. This gives the repeater extraordinarily wide receive coverage. For more information on the remote receiver sites, see below.

- 444.450+ repeater driven by a Kenwood Transceiver and TPL power amplifier. (permanently linked to 224.260.)

- 224.260- repeater. (Permanently linked to 444.450.)

The repeaters are controlled by a common SCOM controller which supports open autopatch thru a shared phone line. The controller also allows access to remote base transceivers. Considerable battery backup power is supplied so that the repeaters can operate for many hours in an emergency.

Equipment in the shack (photo by NC4CD)

The Durham (VA Hospital) Repeater Site - WR4AGC

The Durham VA site includes the following repeaters.

- 145.450- repeater. This repeater has been designated the Durham ARES repeater.

- 444.100+ repeater.

These repeaters are controlled by a common controller which supports open autopatch thru a shared phone line. The controller also allows access to remote base transceivers.

This equipment is fairly old including a vacuum tube power amp and an obsolete controller. It is soon to be replaced by equipment identical to or very similar to the equipment employed at the Hillsborough site. The following picture shows the rack of new equipment which is to be installed there.

The new VA repeaters almost ready to install. (photo by NC4CD)

The 225 Remote Receiver Sites

The 147.225 repeater has its transmitter located at the Hillsborough site, the "Hill". It is linked to seven remote receiver sites. These receivers relay received signals to the Hill with link radios. There a Hall Voter picks the best signal (if there are more than one concurrently). Below are representative pictures for each site: (more descriptive text to come)
Red Mountain TV Hill

This site includes a complete (but older) back-up 147.225 repeater. Gibbs Lane RTP Cane Mountain South Raleigh Wilton

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