

News from Delaware County ARES-RACES

Amateur Radio Emergency Communications ... When all else fails



FOR IMMEDIATE RELEASE

DELCO D-STAR EAST DIGITAL REPEATER SYSTEM ON THE AIR AT DCMH

Delaware County Amateur Radio Emergency Service achieved two milestones Thursday, March 25th when the switch was thrown on the new DELCO D-STAR EAST digital repeater system at Delaware County Memorial Hospital in Drexel Hill, Pennsylvania. The new D-STAR (*Digital Smart Technologies for Amateur Radio*) system is the first dedicated Amateur Radio emergency communications repeater in the county as well as the first digital repeater in Delaware County operating in the Amateur Radio Service.

Delaware County Memorial Hospital funded this project from its inception and has taken the lead among critical care facilities in the county by supporting emergency communication via Amateur Radio on a grand scale. The new digital repeater system features three Icom D-STAR voice and data repeaters connected via a controller that will be linked to the internet as a gateway station in the near future. This capability will enable voice and data to be transmitted world-wide via the D-STAR system. It will also enable emergency operations centers in the five-county Philadelphia metropolitan area to be linked via Amateur Radio. The repeaters operate on the hospital's emergency power system and are also supported with a large capacity backup battery to handle continuous operation during any power interruptions.

Located high atop DCMH, the DELCO D-STAR EAST system is designed to serve eastern Delaware County and a large area of Philadelphia County. Initial performance tests demonstrated excellent coverage in these areas with solid coverage in center city Philadelphia, even with low power signals. The system includes a digital voice (DV) repeater operating on 440.04375 Mhz, a digital voice repeater on 1255.5250 Mhz and a digital data (DD) repeater on 1299.7 Mhz. The repeater system uses a Celwave omni-directional antenna on 440 Mhz. and a Comet omni-directional antenna on 1200 Mhz. The antennas are 305 feet above mean sea level with a height above average terrain of 151 feet. Effective radiated power on 440 Mhz. is 203 Watts and 166 Watts on 1200 Mhz. The repeater system will temporarily use KB3UES for a call sign until a new vanity call is issued by the FCC.

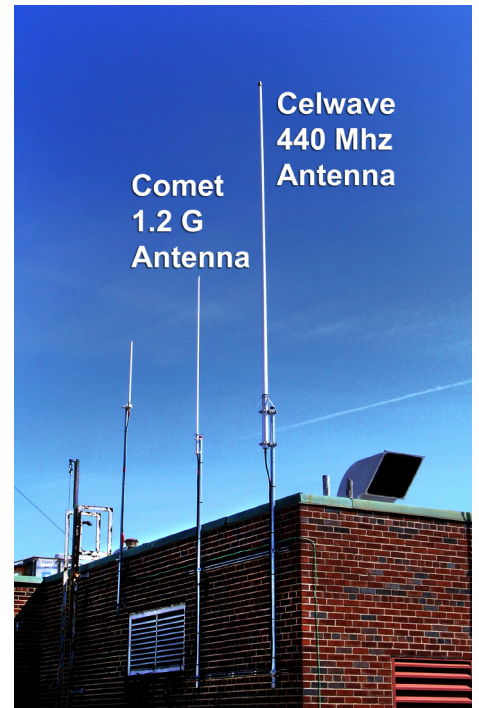
This new D-STAR system, along with a companion system to be installed later in the Spring at Fair Acres in Lima, will form the backbone of a digital communications network dedicated to emergency communications via Amateur Radio in Delaware County. The system features two separate repeaters on both the 440 and 1200 Mhz bands that will enable voice and slow-speed data to be transmitted simultaneously with voice and data packets interspersed on the signal. A separate high-speed data repeater on 1200 Mhz. will enable large data files to be transmitted quickly and error-free.

For additional information contact:

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DELCO D-STAR EAST repeater system is located at DCMH in Drexel Hill, PA



Antenna HAAT is 151 feet



Ground Elevation at DCMH is 185 feet AMSL

DELCO D-STAR EAST

DIGITAL REPEATER SYSTEM



440.04375 + 5.00 DV

1255.5250 + 12.00 DV

1299.7000 DD

440 ERP = 203 WATTS
1.2G ERP = 166 WATTS



DELCO D-STAR EAST repeater system showing cavities, 440 DV repeater, 1.2G DV repeater, 1.2G DD repeater and controller