

U.S. Coast Guard Auxiliary and DEC Improve Communication on the Delaware Bay

By: Tom Roberson

Fifteen minutes south of Dover, the residents of picturesque Bowers Beach awoke to a beautiful fall morning on September 24. As they started their commute to work or departed for a day of work on the water, members of the U.S. Coast Guard Auxiliary and crews from Delaware Electric Cooperative were already converging on their town. A huge volunteer effort was underway to make life safer for local mariners.

The primary radios used to communicate with the Coast Guard in an emergency depend on direct line-of-sight transmissions between the boat in trouble and the Coast Guard. Consequently, they are usually only effective to a range of about 25 miles because of the curvature of the Earth and the height of the antennas involved. Dedicated volunteers of the U.S. Coast Guard Auxiliary Search and Rescue Detachment (SARDET) at Bowers Beach, DE were not satisfied with those range limitations and put together both a team and a plan to fix it.

The plan was as simple as it was difficult. Teams would assemble several state-of-the-art radio antennas to create a single system capable of withstanding near hurricane-force winds. They would bolt this 25-foot antenna array onto an electric pole as tall as a 5-story building. Then they would anchor the system, which at that point would weigh as much as two mid-sized cars, 12 feet in the ground. If the plan was successful, antennas at the SARDET would soar 80 feet above the water even at high tide. They would then be able to help mariners in trouble throughout the Lower Delaware Bay.

Planning for the project began over a year ago. Coast Guard Auxiliarists Harry Otto, Bob McCleary, Mark Letavish, and Bob Bradish took the lead in coordinating federal, state, and local permits as well as designing the complex antenna array. When the Auxiliary contacted Delaware Electric Cooperative about their desire to improve marine communications in the area, Kevin Yingling stepped up to coordinate the donation and installation of one of the largest poles in the Co-op inventory.

Auxiliarists McCleary and Bradish spent dozens of hours designing, buying and assembling individual components into antenna modules. They also worked with vendors to fabricate a support structure that could be assembled on site when needed.

Shortly after dawn on September 24, Auxiliarists Bob McCleary, Bob Bradish, Russell Johnson, and Tom Roberson met at Bowers Beach to assemble and waterproof the antenna modules that had been so carefully fabricated earlier. Meanwhile, a skilled work crew, consisting of Kevin Yingling, Shane Payne, Mike Layton and Philip Collison, from Delaware Electric Cooperative began loading the 70-foot long, 5,800 pound electrical pole for the trip from Greenwood to Bowers Beach.

As the teams started to bolt the antenna array to the pole, an unexpected crowd of enthusiastic local supporters began to assemble to monitor the event. They watched approvingly as the skilled Co-op crew maneuvered the huge pole and its precious cargo underneath existing lines and emplaced it in an area with water only feet away on two sides and the SARDET on another. The feat was even more impressive to those who then watched the crew spin the entire system in its hole to align it with existing Coast Guard radio transmitters in other areas.

Work continues on the project. The plan calls for installation of additional radios capable of retransmitting critical response information. Cables must be installed and radios must be tested and certified, but as residents of Bowers Beach look toward the mouth of their beloved Murderkill River they can see the new antennas towering above the landscape and know that their loved ones will soon be able to depart for the Delaware Bay with a much improved chance of obtaining assistance in an emergency.