Stevens Institute of Technology HF RADAR (CODAR)

The research associated with this application will include the installation of a CODAR site at Norton Point in the Coney Island section of Brooklyn. The CODAR system to be installed uses a high frequency radar signal to measure surface currents over a large area of the coastal waters, bays, and rivers that comprise New York Harbor. Stevens Institute of Technology will utilize the system in two ways.

The data will be used in the New York Harbor Observation and Prediction System (NYHOS), which is comprised of both land and buoy based meteorological and oceanographic monitoring equipment throughout the New York Harbor region. The data will feed into the predictive model of the estuarine system, providing essential information on the effectiveness of past runs. This near real time data (along with model predictions) will be available to the general public via internet. As part of a second project funded by the Office of Naval Research (ONR), Stevens Institute of Technology will be develop the signal processing technology to utilize the existing the CODAR system to track small marine vessels over the target area. The CODAR system has been chosen for this project for its ability to see over the horizon. Future users of this technology will be able to enhance security in a region through its ability to follow small, vessels through a port or harbor. Currently these vessels are undetectable.