

The research associated with this application will expand an existing monitoring system for the coastal ocean. In addition to satellites and autonomous underwater vehicles (AUVs), the system includes an HF radar network. This HF radar system provides maps of ocean surface currents that are updated in real-time. These maps are used by various scientific users to initialize ocean forecast models, direct AUV flight patterns, and to study the surface dynamics of the coastal ocean. Additional users include the United States Coast Guard for search and rescue, the United States Coast Guard and United States Navy for homeland defense, NOAA/HAZMAT for oil spill response and the Department of Defense Counterdrug Technology Development Program for drug intervention. This application replaces file number 0041-EX-PL-2003.