

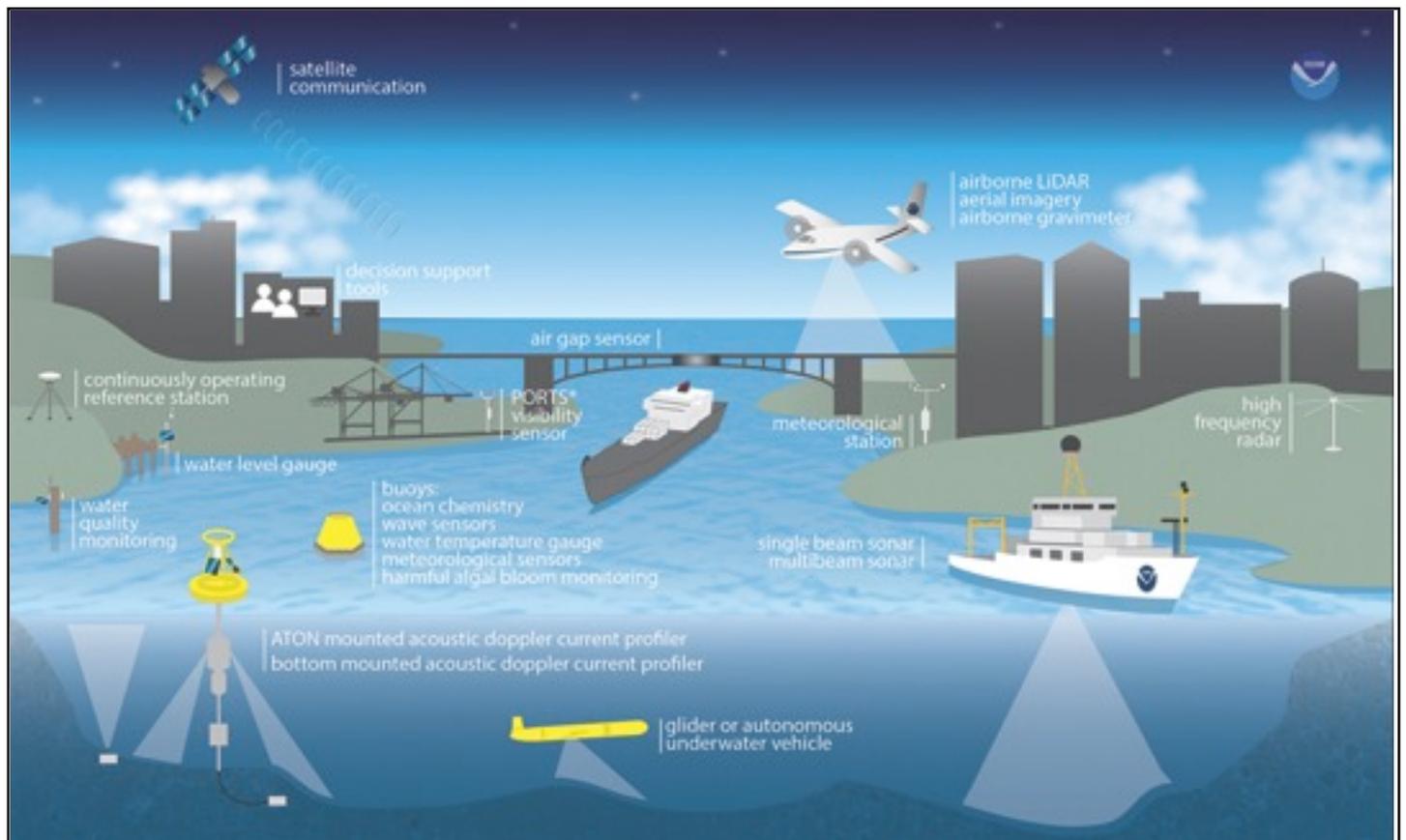
NOAA Gives Mariners New Way to See Surface and Tidal Currents

Use of high frequency radar on water's edge makes navigation safer

The following article published by NOAA touts the display of HF radar data on NOAA's Center for Operational Oceanographic Products and Services (CO-OPS) web site, and also of the upcoming integration of HF radar data into its NOAA Physical Oceanographic Real-Time System (PORTS®) data products. CODAR company is proud to point out that ALL HF radars operating inside of U.S. bays and ports are SeaSonde®. CODAR-patented design features, including compact antenna, make it uniquely well-suited for congested coastal areas common in bays and ports, environments that other HF radar brands cannot accommodate. The NOAA CO-OPS HF Radar can be found at <http://tidesandcurrents.noaa.gov/hfradar/>

A new NOAA National Ocean Service website will provide mariners near real-time coastal ocean surface current observations and tidal current predictions in coastal waters using high frequency (HF) radar, making marine navigation safer for mariners and commercial shippers.

The web-based observations are now available for the Chesapeake and San Francisco Bays in areas vital for marine navigation, with additional locations to follow. The product was made possible by NOAA's Center for Operational Oceanographic Products and Services (CO-OPS) using data from the NOAA-led U.S. Integrated Ocean Observing System (IOOS®).



NOAA's National Ocean Service turns data into user-friendly information with a suite of coastal intelligence products and tools that support the 45 percent of our nation's economy that originates in coastal watershed counties - more than \$6.6 trillion in GDP. (Credit: NOAA)

“By partnering to create new tools like HF radar surface currents, we are providing a more complete picture of a very dynamic environment,” said Richard Edwing, director of CO-OPS. “This is a great example of how coastal environmental intelligence better enables informed decisions to be made for safe navigation and other uses. We will continue to work with our partners in the navigation community to enhance and expand this product and eventually integrate it into NOAA’s Physical Oceanographic Real-Time System (PORTS®) products.”

Currents in the ocean are equivalent to winds in the atmosphere because they move things from one location to another. These currents carry nutrients as well as pollutants and marine debris, so it is important for scientists and mariners to know the currents for ecological, economic and safety reasons. HF radars can measure currents over a large region of the coastal ocean, from a few miles offshore up to 125 miles out, and can operate under any weather conditions.

Located near the water’s edge, HF radar does not need to be atop a high point of land. Traditionally, crews



placed current measuring devices directly into the water to retrieve current speeds. While these direct measurement systems are still widely used as a standard reference, HF radars are the only sensors, including satellites, which can measure large areas at once with the detail required for important applications.

HF radar ocean surface current data complements NOAA’s PORTS®, a system that provides real-time water level, current and meteorological observations for safe navigation and also benefits search and rescue, oil spill response, harmful algal bloom monitoring, water quality assessments, ecosystem assessments, and fisheries management.

“This is an excellent example of taking the environmental data that U.S.IOOS® collects, and putting that information into the hands of people who need it,” said Zdenka Willis, director of the NOAA-led U.S. IOOS® Program. “By working to translate that data into an existing suite of real time navigation products and services, we are showing that NOAA’s investment in key observational platforms provides the vital services our maritime communities rely upon to operate both safely and efficiently.”

CO-OPS is an organization of experts in understanding tides, currents and water levels, turning operational oceanographic data into meaningful information, products and services for the nation.

The NOAA-led U.S. Integrated Ocean Observing System (IOOS®) is a federal, regional, and private sector partnership for tracking, predicting, managing and adapting to changes in the marine environment. IOOS® delivers data and information needed to increase understanding of the nation’s waters to improve safety, enhance the economy, and protect our environment.

Coastal environmental intelligence provides timely, actionable information, developed from reliable and authoritative science, to provide insight to decision makers into present and future conditions in the coastal zone.

NOAA’s mission is to understand and predict changes in the Earth's environment, from the depths of the ocean to the surface of the sun, and to conserve and manage our coastal and marine resources. Join us on Facebook, Twitter, Instagram and our other social media channels.