Radio waves are used to measure the speed of ocean waves within range of a station. Variations in wave speed are used to calculate ocean currents. One station can measure currents up to 200 miles offshore.

A network of over 70 stations combine their measurements to produce hourly maps of currents along both East and West coasts.

Use real-time measured current data for:
- Ocean conditions
- Search and rescue
- Environmental response
- Beach safety warning

Predict the path of the Cosco Busan oil spill in San Francisco Bay
Understand long range effects of pollution on Marine Protected Areas
Map the path of an offshore spill, or check its potential source.

Sea surface currents are measured by the Bodega Marine Laboratory (BML) as a member of the Central and Northern California Ocean Observing System (CeNCOOS), a regional organization of participating institutions. CeNCOOS, together with SCCOOS and NANOOS provide data from the US West Coast to the national network. Federal funding and administration is provided by the Integrated Ocean Observing System (IOOS) office, part of the National Oceanic and Atmospheric Administration (NOAA).