



Photo: showing 12m (vertical height) transmit antenna. (See STA file # 0209-ex-st-2005 application in progress).

Research conducted under the following National Science Foundation grants:

Grant#

9907854 Collaborative Research: Coastal Ocean Advances in Shelf Transport (COAST)

0237710 Collaborative Research: Productivity, Biogeochemical Transformations and Cross-Margin Transport in an Eastern Boundary Buoyant Plume Region

0000734 Collaborative Research: GLOBEC: Mapping the Evolution of Mesoscale Jets and Eddies in the Upwelling Ecosystem off Cape Blanco, Oregon, Using Long-Range High Frequency Radar

Research Objectives:

Mapping of the ocean surface currents along the Oregon coast

Technique:

The equipment measures ocean currents using the echoes of radio waves scattered continuously from ocean waves. The received radio waves are shifted in frequency by the combined effects of ocean waves and ocean currents. The known properties of the ocean waves are then subtracted, leaving the effects of the ocean currents.