## Abstract View

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# Hydrographic Observations along the CODE Central Line off Northern California, 1981

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ABSTRACT

Repeated CTD observations were made along a single section spanning the continental shelf off northern California at 38°40′N during 1981. The section consisted of nine standard stations between 1 and 46 km from the shore in water depths between 40 and 1700 m. The shelf break was at a depth of 150 m about 25 km from shore. The section was occupied 17 times between 13 April and 3 August and twice in December, and a similar section had been occupied in February.

During the April–August period, winds were strong and persistently favorable for upwelling. Isotherms, isohalines and isopycnals in the upper 200 in sloped persistently upward toward the coast, and coldest, saltiest and densest surface waters almost always occurred at the most inshore nation. Variations in wind strength caused changes in the surface layer over the entire shelf: stronger winds were associated with lower temperatures and higher salinities. Subsurface temperatures increased gradually between April and August. We were unable to account for most of the salinity variance during this period.

Shelf waters were considerably warmer and less saline in winter, when the wind direction and speed were highly variable. Isotherms, isohalines and isopycnals were nearly level in winter. Dynamic height and coastal sea level were high in winter and low in summer, there was good agreement between them.