



Due to technical problems, there is a delay in posting the full text version of articles. We hope to have this resolved soon.  
In the meantime please see the PDF version of articles.

## Abstract View

[Volume 3, Issue 1 \(January 1973\)](#)

### Journal of Physical Oceanography

Article: pp. 73–82 | [Abstract](#) | [PDF \(707K\)](#)

# Continental Shelf Waves: Low-Frequency Variations in Sea Level and Currents Over the Oregon Continental Shelf

**David L. Cutchin and Robert L. Smith**

*School of Oceanography, Oregon State University, Corvallis 97331*

(Manuscript received March 20, 1972, in final form June 30, 1972)

DOI: 10.1175/1520-0485(1973)003<0073:CSWLFV>2.0.CO;2

### ABSTRACT

Sea level variations and currents on the Oregon continental shelf exhibit wavelike characteristics in a frequency band from approximately 0.15 to 0.45 cycle per day (cpd). Shelf wave dispersion curves and eigenfunctions for the Oregon continental shelf profile computed using a numerical technique are compared with a low-frequency ( $\sim 0.03$ – $0.75$  cpd) spectral analysis of the current, sea level, and atmospheric pressure records. In a narrow band around 0.22 cpd the current, sea level relationship is consistent with the predicted values for free barotropic continental shelf waves.

#### Options:

- [Create Reference](#)
- [Email this Article](#)
- [Add to MyArchive](#)
- [Search AMS Glossary](#)

#### Search CrossRef for:

- [Articles Citing This Article](#)

#### Search Google Scholar for:

- [David L. Cutchin](#)
- [Robert L. Smith](#)



[amsinfo@ametsoc.org](mailto:amsinfo@ametsoc.org) Phone: 617-227-2425 Fax: 617-742-8718  
[Allen Press, Inc.](#) assists in the online publication of *AMS* journals.