



Abstract View

[Volume 13, Issue 8 \(August 1983\)](#)

Journal of Physical Oceanography

Article: pp. 1519–1525 | [Abstract](#) | [PDF \(511K\)](#)

Observations of Directional Relaxation of Wind Sea Spectra

J.H. Allender

Naval Ocean Research and Development Activity, NSTL Station, MS 39529

J. Albrecht

Computer Sciences Corporation, NSTL Station, MS 39529

G. Hamilton

NOAA Data Buoy Office, NSTL Station, MS 39529

(Manuscript received August 9, 1982, in final form February 2, 1983)

DOI: 10.1175/1520-0485(1983)013<1519:OODROW>2.0.CO;2

ABSTRACT

Two-dimensional wave spectra were acquired through a NOAA Experimental Research Buoy in 34 m of water off the North Carolina coast (Atlantic Ocean). These are analyzed in ideal wave-growth situations and under rapidly turning winds. The relationship between variance and peak frequency for growing seas, determined from the buoy data, agrees well with relationships based on data from other methods. The response of mean wave direction as a function of frequency is documented graphically and by simple regression analyses for several cases of rapidly turning wind fields. The relaxation rates for wave direction are similar to limited previous estimates. The present results can be used in evaluating wave prediction models.

Options:

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

Search CrossRef for:

- [Articles Citing This Article](#)

Search Google Scholar for:

- [J.H. Allender](#)
- [J. Albrecht](#)
- [G. Hamilton](#)



© 2008 American Meteorological Society [Privacy Policy and Disclaimer](#)
Headquarters: 45 Beacon Street Boston, MA 02108-3693
DC Office: 1120 G Street, NW, Suite 800 Washington DC, 20005-3826
amsinfo@ametsoc.org Phone: 617-227-2425 Fax: 617-742-8718
[Allen Press, Inc.](#) assists in the online publication of *AMS* journals.