



## Abstract View

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# Multimodal Properties of the Surface-Wave Field Observed with Pitch-Roll Buoys During GATE

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### ABSTRACT

A sophisticated analysis technique is applied to a subset of pitch-roll buoy data collected by the research vessels *Gilliss* and *Quadra* during the GARP Tropical Atlantic Experiment (GATE) in September 1974. The procedure enables the examination of directional properties of the wave field at a level of detail not previously along 44°N latitude. BY comparing properties of the observed spectra with the predictions of a simple schematic model of the storm, we conclude that swell reaching the GATE area was emitted during the first half of the storm's lifetime; swell subsequently radiated from the storm was heavily attenuated, either by sheltering of the site by the Cape Verde Islands or because of radically lower emission levels from the storm itself.

This work illustrates the power, as well as the limitations of the pitch-roll buoy when used in conjunction with a fully effective analysis technique.

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