



## Abstract View

[Volume 8, Issue 5 \(September 1978\)](#)

### Journal of Physical Oceanography

Article: pp. 838–845 | [Abstract](#) | [PDF \(739K\)](#)

# Further Studies of a Cold Eddy on the Eastern Side of the Gulf Stream Using Satellite Data and Ship Data

**Fred M. Vukovich and Bobby W. Crissman**

*Research Triangle Institute, P.O. Box 12194, Research Triangle Park, NC 27709*

(Manuscript received September 16, 1977, in final form April 13, 1978)

DOI: 10.1175/1520-0485(1978)008<0838:F5OACE>2.0.CO;2

### ABSTRACT

A cold eddy was observed in late March and early April 1975 to encounter the eastern boundary of the Gulf Stream and entrain warm Gulf Stream water into its outer fringes. Available evidence indicated that the entrainment of Gulf Stream water in the western and southern portions of the eddy enhanced the density stratification creating available potential energy which led to an increase in kinetic energy in those regions. A secondary, cold perturbation with a high-salinity core was detected south of the center of the cold eddy. It was not clear from the data whether the conversion of available potential energy into kinetic energy increased the kinetic energy of the cold eddy, produced the secondary perturbation, or both.

#### Options:

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

#### Search CrossRef for:

- [Articles Citing This Article](#)

#### Search Google Scholar for:

- [Fred M. Vukovich](#)
- [Bobby W. Crissman](#)

top ▲



© 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](mailto:amsinfo@ametsoc.org) Phone: 617-227-2425 Fax: 617-742-8718

[Allen Press, Inc.](#) assists in the online publication of AMS journals.

