



Abstract View

[Volume 4, Issue 2 \(April 1974\)](#)

Journal of Physical Oceanography

Article: pp. 237–255 | [Abstract](#) | [PDF \(1.05M\)](#)

Transient Gulf Stream Meandering. Part I: An Observational Experiment

A.R. Robinson

Center for Earth and Planetary Physics, Harvard University, Cambridge, Mass. 02138

J.R. Luyten and F.C. Fuglister

Woods Hole Oceanographic Institution, Woods Hole, Mass. 02543

(Manuscript received June 18, 1973, in final form October 17, 1973)

DOI: 10.1175/1520-0485(1974)004<0237:TGSMPI>2.0.CO;2

ABSTRACT

The results from an observational experiment on the mesoscale space-time variability of the Gulf Stream are reported. Various techniques, including aerial surveys, ship trackings of the 15C isotherm at 200 m, drogues and moored current meters were used and are compared, to give estimates of the variability of the motion over a wide range of scales. A two-week time series of daily tracks of the Stream near 70W are used to interpolate instantaneous paths over 2° of longitude. These paths provide the first detailed information on the small-scale variability of the path indicator of the Gulf Stream northeast of Cape Hatteras. Similarly, the long time series of triweekly aerial surveys provides a detailed picture of the evolution of a large-scale meander.

Options:

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

Search CrossRef for:

- [Articles Citing This Article](#)

Search Google Scholar for:

- [A.R. Robinson](#)
- [J.R. Luyten](#)
- [F.C. Fuglister](#)



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