Sign in

AMERICAN METEOROLOGICAL SOCIETY
AMS Journals Online

AMS Home | Journals Home | Journal Archive | Subscribe | For Authors | Help | Advanced Search | Search | Go

## Abstract View

Volume 6, Issue 1 (January 1976)

**Journal of Physical Oceanography**
Article: pp. 22–28 | Abstract | PDF (389K)

# A Simple Topographic Model of Gulf Stream Separation

**Neville R. Smith and C.B. Fandry**

*Department of Mathematics, Monash University, Clayton, Victoria Australia 3168*

(Manuscript received March 25, 1975, in final form August 11, 1975)

DOI: 10.1175/1520-0485(1976)006<0022:ASTMOG>2.0.CO;2

ABSTRACT

A simple, frictional, linear model is used to study the motion of the Gull Stream over the continental shelf. It is found that the combination of frictional and topographic effects may provide a further mechanism by which the observed separation of the Gulf Stream may be achieved.

The model predicts separation in the form of a classical separated boundary layer and interrelates the slope of the bottom with the position of separation. Counter-circulations northwest of the stream and increased northward transport of the current are also predicted.

Options:
- Create Reference
- Email this Article
- Add to MyArchive
- Search AMS Glossary

Search CrossRef for:
- Articles Citing This Article

Search Google Scholar for:
- Neville R. Smith
- C.B. Fandry

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 Phone: 617-227-2425 Fax: 617-742-8718
Allen Press, Inc. assists in the online publication of *AMS* journals.