



U.S. Department of the Interior  
Minerals Management Service  
Gulf of Mexico OCS Region

Special Information

July 2005

Contact: Debra Winbush  
(504) 736-2597

Caryl Fagot  
(504) 736-2590

*Aspects of the Louisiana Coastal Current*

OCS Study MMS 2005-039

The Minerals Management Service (MMS), Gulf of Mexico OCS Region, announces the availability of a new study report, *Aspects of the Louisiana Coastal Current*. This study presents some new physical oceanographic modeling results obtained for the Texas-Louisiana shelf, as well as a review and assessment of past modeling efforts for this region. Extensive datasets are available from the Louisiana-Texas inner shelf region. Although these data are incomplete and can be misleading, they provide a vast source of information for model development, model forcing, and model verification.

Several simple local models were successfully run for hindcasting observations, and results are presented in this study. Existing reduced dimensionality models, local wind-driven models, and a fully three-dimensional, time-dependent model of the region were employed in hindcast mode. Model output obtained for this study was compared with observational data, and information from independent data was used in model development and forcing. The value of including such factors as bottom dissipation, far field forcing, and alongshore pressure gradients in modeling the Louisiana coastal current was examined. These models have had some limited success in hindcasting observations, but all have issues that remain and these are discussed.

A summary and critique of the results obtained are presented, as well as suggestions for fruitful areas of future progress and appropriate uses for these various types of models on the Louisiana-Texas inner shelf region.

This report is available only in compact disc format from the Minerals Management Service, Gulf of Mexico OCS Region, at a charge of \$15.00, by referencing OCS Study MMS 2005-039. The report may be ordered through the Minerals Management Service's on-line ordering system at <http://www.gomr.mms.gov/WebStore/front.asp>. You will be able to obtain this report also from the National Technical Information Service in the near future. Here are the addresses. You may also inspect copies at selected Federal Depository Libraries.

Minerals Management Service Gulf of Mexico OCS Region Public Information Office (MS 5034) 1201 Elmwood Park Boulevard New Orleans, Louisiana 70123-2394 Telephone requests may be placed at	U.S. Department of Commerce National Technical Information Service 5285 Port Royal Road Springfield, Virginia 22161 (703) 487-4650 or FAX: (703) 321-8547 Rush Orders: 1-800-336-4700
(504) 736-2519, 1-800-200-GULF, or FAX: (504) 736-2620	

MMS, part of the U.S. Department of the Interior, oversees 1.76 billion acres of the Outer Continental Shelf, managing offshore energy and minerals while protecting the human, marine, and coastal environments through advanced science and technology research. The OCS provides 30 percent of oil and 21 percent of natural gas produced domestically, and sand used for coastal restoration. MMS's collects, accounts for, and disburses mineral revenues from Federal and American Indian lands, with Fiscal Year 2004 disbursements of approximately \$8 billion and more than \$143 billion since 1982. The Land and Water Conservation Fund, which pays for cooperative conservation, grants to states, and Federal land acquisition, gets nearly \$1 billion a year.

MMS Main Website: [www.mms.gov](http://www.mms.gov)  
Gulf of Mexico Website: [www.gomr.mms.gov](http://www.gomr.mms.gov)

\*\*\* MMS: Securing Ocean Energy and Economic Value for America \*\*\*

[Return to Technical Announcements](#)