



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

December 2001

Dispersion in Broad, Shallow Estuaries: A Model Study

OCS Study MMS 2001-054

The Minerals Management Service (MMS), Gulf of Mexico OCS Region, announces the availability of a new study report, *Dispersion in Broad, Shallow Estuaries: A Model Study*. This report describes the enhancement of a two-dimensional, depth-integrated, numerical circulation model to include depth-dependent pressure gradients. Vertical varying pressure gradients are an important force of flows in coastal estuaries. The enhanced model was applied to Barataria Basin to help scientists understand the role of wind on flushing and dispersion of estuaries. The analysis reveals that winds reduced the flushing times by 20 to 40 percent compared to the no-wind cases. Isolated measurements completed so far show that wave-induced resuspension of sediments is an important but poorly understood process in shallow coastal basins.

For more information about this study or the Environmental Studies Program in general, contact the Environmental Sciences Section (MS 5430), 1201 Elmwood Park Boulevard, New Orleans, Louisiana 70123-2394, telephone (504) 736-2752.

You can obtain copies of the report from the Minerals Management Service, Gulf of Mexico OCS Region, at a charge of \$10.00 by referencing OCS Study MMS 2001-054. 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
(504) 736-2519 or 1-800-200-GULF
or FAX: (504) 736-2620

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

MMS is the Federal agency in the U.S. Department of the Interior that manages the nation's oil, natural gas and other mineral resources on the Outer Continental Shelf in Federal offshore waters. The agency also collects, accounts for and disburses mineral revenues from Federal and Indian leases. These collections totaled nearly \$8 billion last year and more than \$110 billion since the agency was created in 1982. Annually, nearly \$1 billion from those revenues go into the Land and Water Conservation Fund for the acquisition and development of State and Federal park and recreation lands.

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MMS's Website Address: <http://www.mms.gov>

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