



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

November 2000

DeSoto Canyon Eddy Intrusion, Final Report
Volume I: Executive Summary
Volume II: Technical Report

OCS Study MMS 2000-079 and MMS 2000-080

The Minerals Management Service (MMS), Gulf of Mexico OCS Region, announces the availability of a new study report, *DeSoto Canyon Eddy Intrusion, Final Report, Volume I: Executive Summary and Volume II: Technical Report*.

This report describes *in-situ* measurements over two years (currents, hydrographic, satellite images) used to investigate and characterize Loop Current (LC) intrusions and interactions in the northeastern Gulf of Mexico. These observations allowed estimating the frequency of the LC and associated eddies interaction with the shelf and slope, the exchange of water and energy, and how such interactions affect the currents in the study region. The major findings are that eddies (clock- and anti-clockwise rotating) had a significant impact on the currents in and near the DeSoto Canyon. This interaction between eddies and water affected mainly the near-surface currents; deeper currents were not influenced by the near-surface events and often flowed opposite that of the surface. Winds affected currents over the shelf edge and slope, and these currents substantially impacted the cross shelf exchange of water and energy. Hurricanes and other storms induce substantial fluxes across the shelf break and induced strong near inertial currents.

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 \$15.00 by referencing OCS Study MMS 2000-079 and MMS 2000-080. 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, 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

The MMS, a bureau in the U.S. Department of the Interior, is the federal agency that manages the nation's natural gas, oil and other mineral resources on the outer continental shelf. The agency also collects, accounts for and **disburses more than \$5 billion per year in revenues** from federal offshore mineral leases and from onshore mineral leases on federal and Indian lands.

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

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