

# Technical Announcement

MMS

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

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## *Low-Frequency Variability of Currents in the Deepwater Eastern Gulf of Mexico*

### OCS Study MMS 2010-015

The Minerals Management Service (MMS), Gulf of Mexico OCS Region, announces the availability of a new study report, *Low-Frequency Variability of Currents in the Deepwater Eastern Gulf of Mexico*.

Ocean current and hydrographic data were collected in the northeastern Gulf of Mexico from January 2005 through January 2006. Four moorings (three full-water and a short partial water column) were instrumented with current meters and acoustic profilers to provide the current data for this study. Three research cruises were completed to collect the water properties needed to for the study. The main findings are as follows: (1) the majority of observed variance is explained by a surface-trapped mode that is highly coherent with the temporal amplitudes of the first baroclinic mode, and a lower, but significant percentage of variance is captured in bottom-intensified modes; (2) the horizontal currents reveals that the barotropic and first baroclinic modes exhibit low-frequency variability and eddy time scales of 10-40 days; and (3) the second baroclinic mode is useful for the statistical model of the mooring deployment and is particularly necessary when cyclonic features are present in the study area.

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 2010-015. The report may be downloaded from the MMS website through the [Environmental Studies Program Information System \(ESPIS\)](#). 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.

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1201 Elmwood Park Boulevard  
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Telephone requests may be placed at  
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