



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

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*Visibility and Atmospheric Dispersion Capability over the Northern Gulf of Mexico: Estimates and Observations of Boundary Layer Parameters*

**OCS Study MMS 2005-008**

The Minerals Management Service (MMS), Gulf of Mexico OCS Region, announces the availability of a new study report, *Visibility and Atmospheric Dispersion Capability over the Northern Gulf of Mexico: Estimates and Observations of Boundary Layer Parameters*.

This study determined the overwater visibility and mixing height using satellite and in-situ measurement over the Gulf of Mexico. Two visibility and meteorological stations were made operational in the Louisiana coastal waters beginning in November 2001. Data collected from these stations were used to derive simplified formulas describing the offshore atmospheric boundary layer. With these formulations, monthly mean variations of stability, mixing height, and the ventilation factor (an indicator of dispersion capability) are provided for the northern Gulf of Mexico. A method for determining whether fog or haze conditions were observed is also given. Episodes of reduced visibility recorded at one station were selected and investigated using weather map analysis and available satellite imagery. Naturally occurring fog conditions are by far the most common cause of reduced visibility along the Louisiana coast. Haze can be observed each month; however, the total duration is small and the extent to which it reduces visibility is usually much less than that due to fog.

This report is available only in compact disc format. The disc is available from the Minerals Management Service, Gulf of Mexico OCS Region, at a charge of \$15.00 by referencing OCS Study MMS 2005-008. 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
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(504) 736-2519, 1-800-200-GULF, or  
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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 23 percent of natural gas produced domestically, and sand used for coastal restoration. MMS collects, accounts for, and disburses mineral revenues from Federal and American Indian lands, with fiscal year 2004 disbursements of around \$8 billion and more than \$143 billion since 1982. The Land and Water Conservation Fund, which pays for acquisition of state and federal park and recreation land, 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 \*\*\*

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