



MMS and Alabama

*U.S. Department of the Interior ~ Minerals Management Service
Summer 2003*

MISSION: The Minerals Management Service manages the minerals resources on the Outer Continental Shelf and Federal and Indian minerals revenues to enhance public and trust benefits, promote responsible use, and realize fair value.

In Fiscal Year 2002, the MMS distributed to the State of Alabama approximately:

- \$ 7.7 million from Federal Offshore lands
- \$ 251,749 from Federal onshore production

From 1968 through FY 2002, the following monies have been distributed to the State of Alabama from OCS funds—approximately:

- \$ 57.4 million for Land and Water Conservation Fund State Grants
- \$ 38.8 million for Land and Water Conservation Fund Federal acquisitions
- \$ 13.5 million for Historic Preservation Fund Grants
- \$185.8 million from section 8(g) OCS Lands Act Amendment funds (since 1986).

I. Ongoing MMS Relationships with the State of Alabama

Environmental Studies Research Efforts

MMS's extensive and constantly-evolving Environmental Studies Program (ESP) supplies the scientific and technical information needed to determine which offshore areas are acceptable for leasing, as well as predicting, assessing, and managing the potential impact of OCS activities on the marine, coastal and human environments. Since the inception of the ESP in 1973, more than \$733 million has been directed towards diverse areas of study including physical, chemical, and biological oceanography; atmospheric studies; marine mammals, fisheries, turtle and seabird studies; and studies of the sociology and economic factors and impacts related to OCS and marine mineral activities. Through fiscal year 2002, the MMS ESP has spent about \$200 million in Gulf of Mexico.

In consultation and cooperation with the State of Alabama, over the past several years, the MMS has funded/completed a number of environmental and socioeconomic studies dealing with Alabama issues (shown below).

Alabama Related Studies:

- *Northeastern Gulf of Mexico Coastal and Marine Ecosystem Program: Ecosystem Monitoring, Mississippi/Alabama Shelf*
- *Habitat Impacts of Offshore Drilling: Eastern Gulf of Mexico*
- *Mississippi-Alabama Pinnacle Trend Habitat Mapping Study*
- *Ecological Characterization Atlas of Coastal Alabama*
- *Mississippi-Alabama Continental Shelf Ecosystem Study Data Summary and Synthesis*
- *Mississippi-Alabama Marine Ecosystem Study*
- *Tuscaloosa Trend Regional Data Search and Synthesis Study*
- *Northeastern Gulf of Mexico Physical Oceanography Program: DeSoto Canyon Eddy Intrusion Study; Chemical Oceanography and Hydrography*
- *Air Quality and Dispersion Meteorology of the Northeast Gulf of Mexico: Measurements, Analyses, and Synthesis*
- *Meteorology of the Northeastern Gulf of Mexico.*
- *Emission Inventory of OCS Production and Development Activities in the Gulf of Mexico*
- *A History of Coastal Alabama Natural Gas Exploration and Development*
- *Assessment of Historical, Social, and Economic Impacts of OCS Development on Gulf Coast Communities*
- *The Northeastern Gulf of Mexico Coastal and Marine Ecosystem Program: Ecosystem Monitoring, Mississippi/Alabama Shelf*

A Survey of the Relationship of the Australian Spotted Jellyfish and OCS Platforms is a cooperative study performed by the Dauphin Island Sea Lab, scheduled for completion in 2003. This study investigates the potential role that offshore platforms play during the polyp stage of the jellyfish life cycle, with emphasis on the Australian spotted jellyfish which showed a dramatic presence in the late summer of 2000.

Cooperative Research Efforts

The Gulf Of Mexico Region Oil Spill Program: The purpose of the Oil Spill Program (OSP) is to ensure that MMS is provided with the specialized expert knowledge and capabilities required to adequately fulfill its responsibilities in carrying out the oil spill prevention, planning and natural resource protection mandated by Federal law. The OSP's actions and recommendations may significantly affect the course of action taken by potentially responsible parties. The OSP is highly specialized, and serves as the technical authority providing professional review of offshore oil spill prevention, containment, and cleanup matters.

Owners and operators of oil and/or gas facilities located seaward of the coastline are required to maintain a high level of spill response preparedness through annual training and drills. The

MMS has the responsibility of verifying the subject training and exercises, and the administration of the unannounced oil spill drill program. The OSP conducts approximately 20 drills in the region each fiscal year. The drill scenarios range from well blowouts to vessel collisions and pipeline breaks. The responses required during the drill include equipment deployment and tabletop command post exercises.

One of the recent unannounced oil spill drills was an equipment deployment exercise conducted at Dauphin Island, Alabama. In cooperation with the Alabama Department of Environmental Protection, the MMS gave a briefing to various members of the Alabama State Government. Included in the audience were members of the Alabama Geological Survey, Oil and Gas Board, Department of Conservation and Natural Resources, Emergency Management Agency, Governor's Policy Office and the Department of Environmental Management. Observers from Alabama were able to monitor the deployment and operation of various types of response equipment.

Collection of Meteorology Air Quality and Air Emissions Data for the Breton National Wildlife Refuge: At the request of MMS, operators conducted an air quality and meteorological data program on the OCS in the area around the Breton National Wildlife Refuge. The data will be used by MMS to assess the contribution from OCS oil/gas activities to the allowable increase of the Federal primary air pollutants in the Refuge.

Collection of Air Emissions Data: The MMS is engaged in a program to collect emission data from OCS activities on the entire Gulf of Mexico. The data may be used by the State of Alabama in photochemical and visibility modeling in support of their air quality planning efforts in relation to the Federal ozone standard and the Regional Haze Rules.

Collection of Meteorological Data: MMS is initiating a program to collect meteorological data for the Breton National Wildlife Refuge, a Federal Class I air quality area. The data may be used by the State of Alabama in visibility modeling in support of their air quality planning efforts in relation to the Federal Regional Haze Rules.

MMS Agreement with the U.S. Geological Survey's Biological Resources Division (BRD) National Wetlands Research Center: The purpose of this agreement is to investigate the impacts on coastal wetlands from OCS pipeline canals: "*Assessment of Changes to Coastal Habitats Related to OCS-related Pipelines, Pipeline Canals, Navigation Canals, and Mitigation Activities in the Western and Central Planning Areas of the Gulf of Mexico.*" In addition to documenting these impacts, the effectiveness of existing pipeline mitigation and possible new techniques are being studied. The study area includes Alabama, Texas, Louisiana, and Mississippi. A final report is expected by the end of 2003.

U.S. Geological Survey BRD: The MMS also developed the multiyear field project "*Northeastern Gulf of Mexico Coastal and Marine Ecosystems Program: Ecosystem Monitoring, Mississippi/Alabama Shelf*" which was completed during 2001.

MMS's Marine Buoy Interagency Agreement with NOAA: Through this agreement, winds, waves, and other meteorological measurements made over several years in Gulf waters have helped enhance the forecasting of local weather and support air quality studies in Alabama,

Texas, Louisiana, Mississippi and Florida.

Technology Assessment and Research Program

The Technology Assessment and Research (TA&R) Program supports research associated with operational safety and pollution prevention as well as oilspill response and cleanup capabilities. The program was established in the 1970's to ensure that industry operations on the OCS incorporated the use of the Best Available and Safest Technologies (BAST) subsequently required through the 1978 OCSLA amendments. The program is comprised of two functional research activities: Operational Safety and Engineering Research (OSER) and Oil Spill Response Research (OSRR).

The program operates through contracts with universities, private firms, and government laboratories to assess safety-related technologies and to perform necessary applied research. Participation in jointly funded projects with industry, other Federal and States agencies, and international regulatory organizations has become the primary funding mechanism, in view of the overlap of issues and challenges, as well as a broader recognition that participation in these joint projects is the most effective and efficient means to leverage available funds. Since its inception, the program has funded nearly 500 research projects addressing the broad scope of operations, equipment, and technologies employed in offshore oil and natural gas exploration, development, production, and transportation activities.

Although specific funding levels attributable to individual states are indeterminable because of the various fund sharing arrangements utilized in the program, TA&R Projects of particular interest to Alabama include:

Offshore Technology Research Center (OTRC) – This is a joint venture between Texas A&M University and the University of Texas and receives funding from more than 25 companies, the State of Texas, and additional Federal and state agencies. The MMS and OTRC initiated a cooperative agreement which focuses a portion of the OTRC resources upon specific activities associated with the MMS Regulatory Program. In addition, the cooperative agreement provides for an expanded level of participation in certain joint industry projects conducted by OTRC as well as an enhanced level of support for broad-based research conducted through the OTRC with future applications to deepwater oil and natural gas operations in the Gulf of Mexico. During the past five years, the MMS has funded approximately 60 projects and workshops at OTRC focusing on specific areas such as deepwater structures, risers and moorings, materials, seafloor engineering and subsea equipment. In addition the TA&R program has held numerous workshops addressing a range of technical issues associated with offshore oil and gas activities.

Other Research of Interest

Atlas of Gulf of Mexico Gas and Oil Sands: The *Offshore Atlas* makes publicly available a systematic compilation of Gulf of Mexico oil and gas reserves, production and geologic data within a play-defined framework, with the goal of assisting industry to more efficiently discover and develop hydrocarbon resources in the Gulf of Mexico. This information also will be useful to Federal and State government decision-makers. The Atlas—published in September 2001—is

an all-digital publication and consists of a report and various data files. This study details 65 established plays that contain reserves across the Gulf of Mexico OCS. These 65 plays, comprising 10,235 sands in 1,042 fields, contain proved and unproved reserves totaling approximately 168 trillion cubic feet of gas and 15 billion barrels of oil, or a combined total of 45 billion barrels of oil equivalent.

2000 Assessment of Conventionally Recoverable Hydrocarbon Resources of the Gulf of Mexico and Atlantic Outer Continental Shelf: The MMS 2000 *Assessment* makes publicly available a systematic assessment of Gulf of Mexico and Atlantic conventionally recoverable hydrocarbon resources, reserves, production and geologic data within a play-defined framework, with a goal of assisting industry to more efficiently discover and develop hydrocarbon resources. This information also will be useful to Federal and State government decision-makers. The assessment—published in October 2001—is an all-digital publication and consists of a report and various data files. This study forecasts that over half of the oil and natural gas total endowment of the Gulf of Mexico remains to be discovered, with mean undiscovered resources of 192 trillion cubic feet of gas and 37 billion barrels of oil, or a combined total of 71 billion barrels of oil equivalent.

Stratigraphic and Structural Framework of the Subsalt Strata in the Mobile, Viosca Knoll (North), Western Pensacola, and Western Destin Dome Areas of the Gulf of Mexico.

Completed in May 2000, this one-year project under the direction of the Geological Survey of Alabama characterized subsalt stratigraphy, structure, and hydrocarbon potential of this area. This project was continued by the Geological Survey of Alabama refining the seismic interpretation and examining the petrologic data in more detail further characterizing the hydrocarbon potential of this area. The project was completed in September 2001. The deliverables included the report, *Stratigraphic and Structural Framework of the Subsalt Strata in the Mobile, Viosca Knoll (North), Pensacola, and Destin Dome Areas of the Gulf of Mexico and Adjacent Onshore Areas*, by Pashin, J. C. and Carroll, R. E.

Geometry and Evolution of Mesozoic-Cenozoic Salt Structures in the DeSoto Canyon and Eastern Mississippi Interior Salt Basin. This one year project, under the direction of the Geological Survey of Alabama, is an outgrowth of their work on subsalt geology and is designed to facilitate exploration in the northeastern Gulf of Mexico by providing structural models and detailed characterization of hydrocarbon trapping mechanisms. A draft report of this work was submitted in September 2002. Initial results have been fruitful and this project is extended to further facilitate the assessment of hydrocarbon resources in the northeastern Gulf of Mexico. The final report for the study is due September 2003.

Lower Cretaceous Carbonate Petroleum Reservoir Characterization, Northeastern Gulf of Mexico. Under the direction of the University of Alabama, this 4 year project is designed to answer several regarding carbonate lithofacies, reservoir properties, stratigraphy, and hydrocarbon potential. The study will integrate knowledge of the Lower Cretaceous obtained from outcrops, cores, well logs and seismic data from around the Gulf of Mexico Basin.

Other Cooperative Efforts with the State of Alabama

Cooperative Hydrocarbon Development: The MMS Gulf of Mexico Region has established an ongoing liaison with Alabama to proactively monitor State and Federal areas of mutual interest along the State/Federal offshore boundary. As part of this initiative, both the State of Alabama and the MMS will share data and work closely on development issues associated with State and Federal oil and gas leases that lie adjacent to the State/Federal boundary. This initiative is aimed at furthering the efficient and cooperative development of such resources.

Sand and Gravel Cooperative Agreement: Since 1993, MMS and the State of Alabama through the Geological Survey of Alabama (GSA) have been involved in a cooperative agreement to identify OCS sand resources that could be used for beach restoration and wetlands protection projects. In the aftermath of Hurricane Danny, the MMS and the GSA recognized a need to identify sand resources that could be used for shore protection and storm mitigation projects. Since 1993, the MMS has provided, and Alabama has matched, \$327,000 in funding for the cooperative agreement. The cooperative agreement has been very successful and has identified over 30 million cubic yards of OCS sand offshore Dauphin Island and the Morgan Peninsula. The MMS and the Geological Survey of Alabama (GSA) are continuing cooperative work to develop a web-based coastal and nearshore geological spatial database.

Meeting with Alabama Coastal Zone Management Staff: MMS continues to work with the State to streamline and improve interagency CZM processes and to improve MMS/State working relationships. Using the State consultation agreements, MMS will ensure that all required information is complete and included in the public information copy of the plan. MMS plans to present the State with an approach to streamlining the Federal Consistency Determinations they receive for OCS Lease Sales. MMS will meet with the State later in 2003.

II. Major Issues of Interest to the State of Alabama

Line of Site Concerns: The State of Alabama has expressed concerns over leasing within 15 miles of the Baldwin County coastline. MMS and State of Alabama have worked closely to develop a lease stipulation that requires postlease consideration of ways to minimize visual impacts of oil and gas and other fixed structures. MMS continues to work with the State on this issue for Central Gulf of Mexico lease sales during the 2002-2007 timeframe. In addition, the OCS 5-Year Program for 2002-2007 has limited possible leasing in the Eastern Gulf of Mexico to a small area that lies more than 100 miles offshore Alabama.

Mercury Associated with OCS Oil and Gas Production: In late 2001/early 2002, several articles appeared in local Gulf of Mexico newspapers indicating that the potential for offshore discharges of mercury to be taken up by fish and other commercial species. A small amount of mercury is found in barite, which is used in drilling muds. However, this type of mercury is in an inert form and the quantity is strictly regulated by EPA (limited to less than one part/million). MMS has sponsored research in this area, most notably the "GOOMEX" study (Gulf of Mexico Offshore Operations Monitoring Experiment). The study found that mercury uptake, as measured in fish and other organisms found near platforms, did not differ significantly from levels measured far away from platforms. Although it is generally believed that OCS oil and gas

activities do not contribute in a significant way to mercury uptake by marine organisms, MMS has asked the independent OCS Advisory Board Scientific Committee to review the literature on this issue and advise the agency if further studies are needed. In response to the recommendations of the subcommittee, the MMS environmental studies program has initiated a contract with FY 2002 funds that will look at whether barite could dissolve on the sea floor and release trace metals such as mercury. Other studies will be initiated, as appropriate.

OCS 5-Year Program for 2002-2007: The OCS 5-Year Program became effective in July 2002. As it concerns Alabama, the program proposes annual lease sales in the Central Gulf of Mexico (for a total of 5 sales), as well as two lease sales in the Eastern Gulf (one in 2003, one in 2005). Portions of both the Central Gulf of Mexico and the Eastern Gulf of Mexico planning areas are located offshore Alabama. The area to be offered in the Eastern Gulf of Mexico during the 2002-2007 timeframe is limited to an area that lies more than 100 miles offshore Alabama. MMS will consult extensively with the State of Alabama on all proposed lease sales described above prior to making any final decisions on these sales.

Status of Gulf of Mexico OCS Deep Water Activities: Leasing activity in the deepwater Gulf of Mexico steadily increased in the early 1990's and exploded in 1996 due, in part, to incentives introduced in the Deep Water Royalty Relief Act of 1995 (DWRRA). During the period mandated by DWRRA, i.e. 1996 through 2000, over 4,500 new leases were issued in water depths greater than 200 meters in the Gulf of Mexico OCS, with a majority of these located in water depths greater than 800 meters. From 2000 to 2001, deepwater oil production was up 25 percent—to 930,000 barrels per day; deepwater gas production was up nearly 20 percent—to 3.2 billion cubic feet per day. Beginning in 2001, MMS used its discretionary authority to continue to provide upfront royalty suspension incentives. Incentives were provided for new deep water leases issued in 800 meters of water or greater. Also, for 2002 and 2003 Central and Western Gulf of Mexico lease sales, MMS expanded the upfront royalty suspension incentives offered in 2001 by including royalty holidays for new leases issued in water depths of greater than 400 meters.

OCS Leasing Restrictions: Portions of the OCS are subject to restrictions on new oil and gas leasing. On June 12, 1998, President Clinton administratively withdrew from leasing until 2012 those areas under congressional moratorium pursuant to the FY 1998 Department of the Interior Appropriations Act (sections 108-111 of Public Law 105-83) and withdrew permanently all areas designated as National Marine Sanctuaries. The President's withdrawal and the annual congressional moratoria, which were continued in FY 2003 with the support of the Administration, place specified areas of the OCS off limits to new leasing, including most of the Eastern Gulf of Mexico Planning Area, except for the original Sale 181 area. The Department has again proposed language in its FY 2004 budget request that would continue the annual leasing restrictions in the Eastern Gulf (areas outside of Sale 181).

Eastern Gulf of Mexico Lease Sale 189 (2003): Two lease sales in the Eastern Gulf of Mexico Planning Area are scheduled under the OCS 5-Year Program for 2002-2007. Under the current 1.5 million acre configuration, lease sales 189 and 197 would be held in 2003 and 2005, respectively. The proposed sale area lies more than 100 miles offshore Alabama and Florida. Of the 256 blocks located in the proposed Sale 189 area, 118 blocks are currently under lease.

Upcoming Dates of Interest: Final EIS to the Public—June 2003; Proposed Notice of Sale—July 2003; Final Notice of Sale—October 2003; Sale Date--December 2003

Status of Exploration Activities in the Eastern Gulf of Mexico: The MMS has received twelve exploration plans (EP's) for leases that resulted from Eastern Gulf Sale 181, held in December 2001. Five of the EP's have received coastal zone management consistency certification from affected states and have been approved. Companies that submitted EP's included Marathon (2 Plans--DeSoto Canyon 445 and 489; and DeSoto Canyon Blocks 490, 491, and 535), Anadarko (4 Plans--Lloyd Ridge Blocks 5, 6, 49, and 50; Lloyd Ridge Blocks 315, 316, 359, and 360; Lloyd Ridge Blocks 265 and 309; and Lloyd Ridge Blocks 47, 91 and 135), Shell (2 Plans--Desoto Canyon Block 269 and Lloyd Ridge Block 399), Ocean Energy (1 Plan--DeSoto Canyon Block 180 and 244), Amerada Hess (1 Plan--DeSoto Canyon Block 620) and Kerr McGee (1 Plan—DeSoto Canyon Blocks 226 and 270).

Two exploration plans were received on leases issued prior to Sale 181, but within that sale area. Marathon has drilled an exploration well on its DeSoto Canyon Block 927 lease (Barracuda) and Shell has had its EP approved for the Red Dawg (DeSoto Canyon Blocks 622 and 666) project.

Anadarko finished drilling (plugged and abandoned) its No. 1 well on Lloyd Ridge Block 360 in May 2003. Upon leaving this site the rig commenced drilling Anadarko's No. 1 well on Lloyd Ridge Block 50.

OCS Impact Assistance: OCS impact assistance legislation was passed as part of the Department of Commerce's Fiscal Year 2001 Appropriations Act (Title IX, P.L. 106-553); however, it is subject to annual appropriations. To date, the program has only been funded in FY 2001. The State of Alabama received approximately \$20.4 million under that program at the end of FY 2001. The program was not funded in FY 2002 or FY 2003, and the Administration did not propose to fund the program in FY 2004.

Administration Initiative to Use Gulf of Mexico OCS Oil to Fill the SPR: In late 2001, President Bush announced an initiative to fill the remaining capacity of the Strategic Petroleum Reserve (SPR) utilizing Federal royalty-in-kind (RIK) oil. Approximately 120 million barrels of this RIK oil from the Gulf of Mexico will be used to support the SPR fill. The fill began in April 2002, and is estimated to be completed in December 2004, with contract closeouts and reconciliations completed by June 2005.

Status of Chevron Destin Dome 56 Settlement (Offshore Pensacola, Florida): In July 2002, the Department of the Interior entered into a settlement agreement with Chevron, Conoco, and Murphy, concerning their leases in the 11 block Destin Dome 56 Unit located in federal waters offshore in the Eastern Gulf of Mexico. The settlement provided for the relinquishment of seven of the nine leases in the Destin Dome Block 56 Unit by the lessees in return for \$115 million dollars. This action was completed in late July 2002. Also as part of the settlement, the lessees would then pay Exxon/Mobil and Samedan an undisclosed amount of money to relinquish two of their leases (which were not part of the litigation but part of the Unit). This action was completed, and as of October 1, 2002, nine of the 11 leases in the Destin Dome Unit have been

relinquished back to the Federal government.

The settlement also provided for Murphy to retain the two remaining leases in the Unit, with the leases being held by a series of directed suspensions until 2012, the first of which was approved on August 14, 2002. Under the settlement agreement, Murphy has agreed not to submit a development plan for them before 2012, when current oil and gas leasing moratoria expire. After 2012, as per the terms of the settlement agreement, the leases cannot be developed unless both the Federal government and the State of Florida agree.

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