

# MMS: Securing Ocean Energy and Economic Value for America

U.S. DEPARTMENT OF THE INTERIOR **MINERALS MANAGEMENT SERVICE 2003-2004**



**MMS**





“As stewards of America’s public resources, MMS is achieving a balance between both sides of the American quality of life equation: the quality of life we enjoy from reliable, affordable energy, and the environmental quality of life we appreciate so much.” — GALE A. NORTON, SECRETARY OF THE INTERIOR



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## Director's Message



America is in the midst of a national debate on the appropriate development of its energy resources to meet greater energy demands. It is no secret that the comforts and advantages energy affords are keys to our national prosperity. The 1.76 billion acres of the Outer Continental Shelf (OCS), the submerged lands seaward of coastal states, is a national resource that is a vital component of our energy and economic security.

The Minerals Management Service (MMS) regulates the oil and gas exploration and production efforts located on OCS leases. Today, the OCS is one of the largest domestic sources of oil and natural gas—currently providing about 30 percent of the oil and 23 percent of the natural gas produced domestically. Approximately 56 million American homes are heated by natural gas and about 90 percent of the new energy plants that will come online in the next decade will be powered by natural gas.

The MMS believes finding new ways to tap into U.S. offshore natural gas is a promising near-term supply solution. The MMS offers production incentives to industry to encourage exploration and production of oil and natural gas on the OCS, which is believed to hold as much as half of the Nation's undiscovered natural gas considered technically recoverable. Its contribution is projected to grow

significantly over the next few years as more deep water projects come online and the leasing program continues in the Gulf of Mexico and in Alaska.

The MMS is helping secure America's energy future and quality of life, while protecting the environment and providing fair equity for the use of Federal lands. The MMS ensures optimal value from onshore and offshore, Federal and Indian gas and oil production. The bureau also manages mineral revenues generated by onshore and offshore leases. These revenues are distributed to the U.S. Treasury, the States, American Indians, and trust funds such as the Land and Water Conservation Fund.

The MMS is America's chief trustee of ocean energy resources. Its efforts are ensuring future generations will inherit a world where the enormous potential of the oceans is realized without sacrificing the wondrous beauty of the depths.

R.M. "Johnnie" Burton  
Director, Minerals Management Service

**The Outer Continental Shelf is a 1.76 billion-acre area that begins 3 to 10 miles off the coast. This is an area 3/4 the size of the United States itself.**

## Introduction to the MMS

The Minerals Management Service's (MMS) activities provide major energy and economic benefits to taxpayers, states, and the American Indian community. A bureau of about 1,700 people in 14 cities across the United States, the MMS is America's ocean resource manager, with over 1.76 billion offshore acres of land under its jurisdiction. There are two primary operating programs: the Offshore Minerals Management program (OMM) and the Minerals Revenue Management program (MRM). The Directorate of Policy and Management Improvement, the Directorate of Administration and Budget, and the Offices of Public and Congressional Affairs support both programs.

The bureau also has three offshore management regions that include the Gulf of Mexico Region in New Orleans, Louisiana; the Pacific Region in Camarillo, California; and the Alaska Region in Anchorage. Although the Gulf of Mexico is considered the Nation's preeminent source of oil and natural gas, producing wells are also located in the Pacific and Alaska Regions. In addition, the MMS manages OCS leases and regulates the energy companies performing

oil and gas exploration and extraction activities in these three regions. The MMS promotes studies of the marine environment and marine life to ensure the ocean's health and integrity throughout the exploration and extraction processes.

The MMS's other significant core business activity is the collection and disbursement of the billions of dollars in mineral revenues. The agency collects, accounts for, and disburses mineral revenues from Federal and American Indian leases. These revenues total about \$135 billion since the bureau was created in 1982. Annually, nearly \$1 billion from these revenues go into the Land and Water Conservation Fund for the acquisition and development of state and Federal park and recreation lands. Revenues collected by MMS are one of the largest sources of non-tax revenue to the Federal Government.

The MMS is committed to serving our country in the best, most efficient manner possible throughout all of our business activities.

### **Mission**

The MMS manages the mineral resources on the Outer Continental Shelf and Federal and Indian mineral revenues to enhance public and trust benefits, promote responsible use, and realize fair value.



# Meeting America's Energy Needs Today

## 50 Years of Progress

Since the passage of the OCS Lands Act in 1953, OCS lease sales have generated about 14 billion barrels of oil, 150 trillion cubic feet (Tcf) of natural gas, and \$150 billion in revenues from federal offshore collections. The MMS also provided oil in-kind to help fill the Strategic Petroleum Reserve.

During Lease Sale 187 held in the Western Gulf of Mexico in August 2003, 330 leases were awarded, totaling \$145.9 million. These leases may result in the production of up to 260 million barrels of oil and around one trillion cubic feet of natural gas. That amount of gas could supply the equivalent of one year of natural gas for about 18 million homes.

The MMS contributes to America's energy supply through the management of mineral resource exploration and production activities on the outer continental shelf, the majority of which are in the Gulf of Mexico (Gulf). The Federal OCS is a major supplier of oil and natural gas for the domestic market, contributing more energy from oil and natural gas for U.S. consumption than any single U.S. state or country in the world. Today the OCS provides about 30 percent of the Nation's domestic oil production. By 2012, that amount could increase to 40 percent or more because of deep water operations, which now account for 60 percent of overall Gulf oil production.

The OCS also provides 23 percent of the natural gas produced in the United States. Gas production in the Gulf reached a peak in 1997 and has remained relatively flat since then. Deep water gas production has risen some 229 percent from 1997 to 2002 and yet Gulf production levels have remained relatively flat. This is due to the decline of over 26 percent since 1997 of production from shallow water.

Another significant trend occurring in the Gulf is the decline in the number of new gas completions, a 20 percent drop from 2001 to 2003. The National Petroleum Council has projected that these trends will continue, with increases in deep-water Gulf production, but continued reductions in shelf production.

However, the harder to get deeper gas is more expensive and riskier to develop. The costs and economic risks of deep water, deep shelf, and Alaska oil and gas exploration and development are high.

Because of the above factors, the MMS believes the future role of the OCS needs to be addressed by:

- exploring in deep water,
- drilling deeper on the shelf,
- moving into ultra-deep water, and
- encouraging OCS Alaska exploration and development.

These areas of the OCS have potential for development and resulting contributions to the U.S. economy, and MMS economic analyses show that we need incentives now to encourage development and production in them. For example, the success of deep water development, spurred in part by incentives, has helped to double oil production from Federal OCS lands over the last 10 years. The MMS's extension of the deep water royalty relief program in 2004 and thereafter is expected to continue stimulating leasing in under-explored OCS areas and development of new technologies.

The MMS estimates that 468.6 Tcf (high case) of conventionally recoverable undiscovered natural gas and 105.4 Tcf of gas reserves (proved, unproved, and appreciated) remain on the OCS. Assuming the current consumption of natural gas in the U.S. is between 22 and 23 Tcf per year, the OCS contains a 25 year supply.

## Lease Sales

According to the Outer Continental Shelf Lands Act (OCSLA) (43 U.S.C. 1344, Section 18), the Department of the Interior is required to prepare a five-year schedule of proposed oil and gas lease sales. The schedule includes lease sales in the available areas of the OCS (i.e. those areas not under congressional moratorium or executive withdrawal) that have the highest resource value and interest to industry while recognizing environmental values and competing uses. There are 20 lease sales planned for the current five-year program (2002–2007); three sales occurred in fiscal year 2003.

**GOING DEEPER IN THE SHALLOW GULF** Since March 2001, MMS has provided royalty suspension incentives to increase natural gas production from deep zones in the Gulf of Mexico. The Deep Gas Rule, published in 2004, provides royalty relief to shallow water leases issued prior to 2001 for production of natural gas from wells completed below 15,000 feet subsea. The rule also provides royalty relief credits for “dry holes” drilled to depths below 18,000 feet subsea prior to any deep gas production being generated on the lease. This rule makes lessees eligible for royalty relief on their existing leases if they are willing to drill for new and deeper prospects. All leases in shallow water issued since 2001 have had a similar incentive.

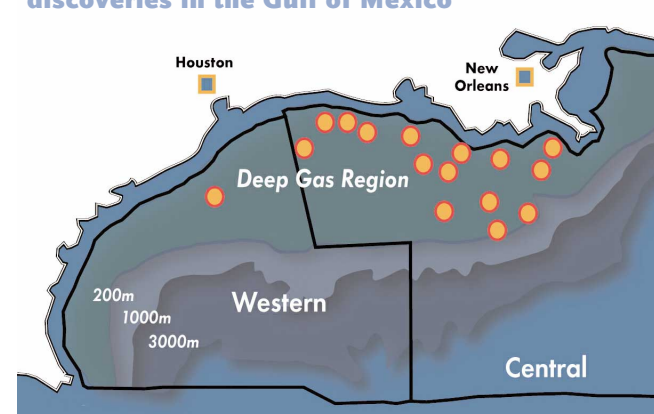
There are about 2,400 existing leases in the area targeted for relief under the rule. Oil and gas production in the shallow-water area has been declining precipitously over the past five years. While the shallow waters of the Gulf have been actively explored, relatively few wells penetrated depths below 15,000 feet due to the high cost and risk associated with such wells. Since infrastructure—platforms and pipelines—is already in place, MMS anticipates that production could come online quickly within active leases.

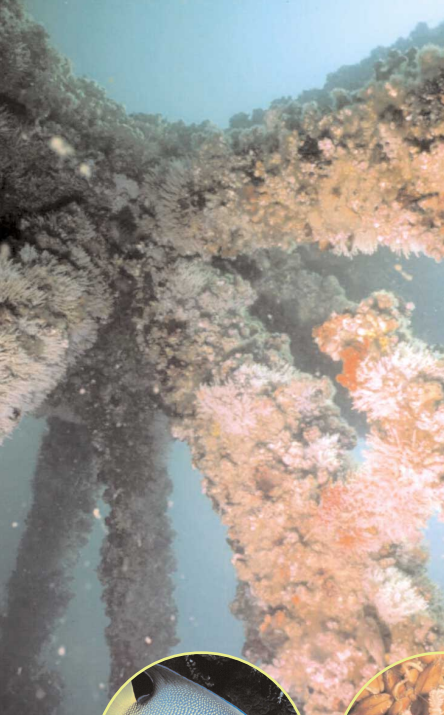
The increased potential production spurred by the incentives will help meet energy demands and save consumers an estimated \$500 million in natural gas costs per year over the next decade. Production from deep wells on existing leases in the shallow waters of the Gulf is one of the most attractive sources of additional natural gas to help meet the energy needs of the Nation. The MMS estimates that undiscovered gas resources of up to 55 Tcf may be contained within this “frontier” area. If converted to electricity, 55 Tcf of natural gas could provide nearly a three-year energy supply for every home in America.

**GOING DEEPER IN DEEP WATER** The MMS and industry continue responding to the many technical challenges associated with deep water development. These challenges include pipeline installation and repair; design and reliability of new production systems; hydrate and paraffin control; riser technology, gas recovery and utilization, and new mooring systems.

By offering deep water royalty relief incentives and responding to technical challenges, MMS helps encourage drilling in deep water at a high pace. Natural gas production from such leases has already generated over one Tcf per year, and oil production is projected to increase. The deep water success story helped not only double oil production from Federal lands over the last 10 years, it also offset the decline in OCS natural gas production by adding increased gas supply from deep water.

### Shallow water deep gas discoveries in the Gulf of Mexico





### Strategic Petroleum Reserve

With almost 60 percent of the Nation's supply of oil coming from foreign sources, the Strategic Petroleum Reserve (SPR) provides a critical buffer for potential disruptions in oil supplies. In November 2001, President Bush directed the filling of the SPR to capacity. The MMS partners with the Department of Energy and continues to deliver oil to the SPR. Through 2003, MMS provided 59.5 million barrels of Gulf of Mexico Federal royalty-in-kind oil to the Department of Energy for the SPR, half of the approximately 120 million barrels required to fill the SPR. When full in 2005, the SPR will contain approximately 700 million barrels of oil, providing a key link in the Nation's security network.

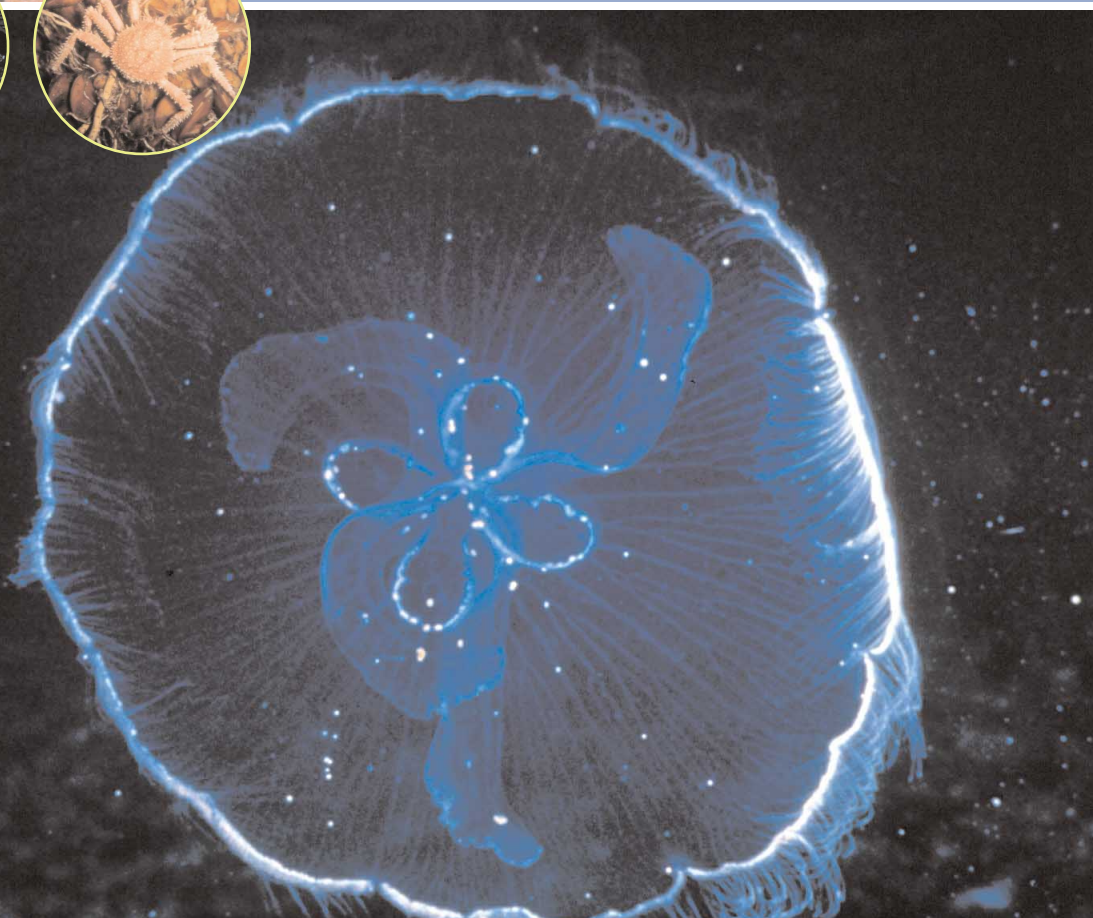


**With major projects slated to come online in the next few years (including Thunder Horse, the largest discovery in the OCS in the past 30 years), it is projected that OCS production could easily reach 2 million barrels per day in the next few years and account for over a third of domestic crude oil production. Natural gas production is expected to remain at its current level, or increase slightly.**

### Small Refiners

The small refiners program is mandated under the Mineral Lands Leasing Act of July 13, 1946. The MMS adopted the Small Business Administration's criteria for eligible refiners when it published regulations governing the sale of Federal royalty oil to small refiners, in 1987.

The Small Refiner Program provides small refiners with access to crude oil at equitable prices. The MMS provides approximately 50,000 bbls/day of crude oil in the Gulf Region and 10,000 bbls/day in the Pacific Region, for the Small Refiner Program. Contracts for the program are issued under competitive bid to eligible small refiners for six-month or one-year contracts. Charging a fair market value for its royalty share, MMS is able to provide refiners with a supply of inventory at equitable prices.







**In 2003, the Na KiKa project came online consisting of six deep water discoveries tied back to a single host, therefore reducing the number of ecological footprints. It is the world's deepest permanently moored production unit (6,300 feet). The last field will be brought on production in late 2004 and will set a new water depth record for Gulf of Mexico production at 7,600 feet. The fields will be produced using 12 subsea wells that lie on the ocean floor—118 miles of flow lines will connect the six fields.**

**PAST THE SALT** The MMS subsalt initiatives provide lease extensions for certain qualifying exploration activities that focus on reservoir targets that occur beneath subsurface salt sheets. Vast resources of oil and natural gas may underlie sheets of salt on the OCS. Even with today's technology, salt sheets make it difficult to obtain a clear image of the subsalt geology. Many leases with potential subsalt reservoirs are nearing the end of their primary lease term and either have not been drilled or have been drilled but do not have a discovery, and could expire; these leases may benefit from the subsalt initiatives.

The MMS estimates that six to 16 Tcf of gas and 0.5 to 1.2 billion barrels of oil may lie beneath salt, and could yield additional oil and gas beginning in 2008.

**A new well at the Mensa deep water project set a Gulf of Mexico record by producing natural gas at a rate of 143 million cubic feet per day. For comparison, traditional shelf wells flow at about 3 million cubic feet of natural gas per day.**

## **MORE ENERGY THAN OTHER FOSSIL FUELS**

**COMBINED** Energy-rich methane is the main component of natural gas. Buried in the sediments of the ocean floor is a reserve of natural gas—locked together with water in a crystalline ice form known as hydrates. Researchers estimate there is more fuel trapped in natural gas hydrates than in all the other fossil fuels combined. Over 98 percent of natural gas hydrate resources are estimated to occur in offshore ocean sediments.

Industry (through joint government-industry research efforts) completed a successful drilling program for natural gas hydrates in Canada and has been drilling a natural gas hydrate prospect on Alaska's North Slope to test the best tools and methods for drilling and recovering natural gas hydrate resources. The Gulf of Mexico and Alaska are prime exploration locations for natural gas hydrates.

While research thus far indicates the resource has great long-term potential, much remains to be learned.



**DEVELOPMENT IN ALASKA** Alaska's first lease sale, conducted in 1976, opened the doors for industry to begin oil and gas exploration on Federal leases offshore Alaska. Yet, the area remains relatively unexplored, with a total of approximately 80 exploratory wells drilled in the areas of Cook Inlet, the Gulf of Alaska, Norton Sound, and in the Bering, Chukchi, and Beaufort Seas. Drilling offshore Alaska is a challenge, but the technologies developed for these activities have proven safe and reliable. Drilling operations must be capable of safely operating in all kinds of weather. It is MMS's responsibility to ensure that all drilling activities are conducted in a safe and environmentally responsible manner.

The MMS has estimated conventionally, recoverable resources for the Alaska OCS to range between 17 and 35 billion barrels of oil, and up to 227 Tcf of natural gas. This indicates significant potential which has not been realized because of high costs associated with exploration, development, and transportation of resources to market.

**In 2001, the Northstar project in the Beaufort Sea became the first OCS production in Alaska. The field is a joint State of Alaska and OCS managed unit, and contains about 170 million barrels of oil. Since late 2001, the field has produced 40 million barrels of oil at high flow rates.**

**BEAUFORT SEA SALE** The Beaufort Sea continues to hold the best near-term potential for offshore petroleum reserves on the Alaska OCS. Conventionally recoverable resources could range between 4 and 12 billion barrels of oil, and up to 63 Tcf of natural gas. In September 2003, MMS held Beaufort Sea OCS Lease Sale 186. It covered an area that encompassed about 9.4 million acres offshore Alaska's northern coast in the Beaufort Sea and brought \$8.9 million in high bids on 34 tracts covering approximately 181,000 acres of land. To encourage exploration and production, royalty suspension provisions and reduced minimum bid requirements were included in the Beaufort Sea Lease Sale.

The MMS consulted and worked with states and local communities to protect vital areas by developing the conditions of the sale and the designated areas for operations. In addition to MMS's existing regulations, which extensively cover safety, drilling, and pollution prevention, the lease agreements included seven stipulations intended to minimize effects, from any development of the area's oil and gas resources, to the environment and to the Inupiat people.





## Physical Oceanography Research

The MMS research in physical oceanography of the Gulf of Mexico is an ambitious and dynamic program. This program is a leader in providing deep water oceanography information for the Region. The MMS is collaborating and sponsoring joint research, with Mexican oceanographers, recognizing that the environmental health of ocean waters is not confined by political boundaries.

## Ice Islands

When oil companies explore for oil offshore, a drilling platform is needed from which to work. In most areas of the world, drilling platforms are constructed of steel. In the Arctic, the oil companies can use seawater to build an ice island to use as a drilling platform. Ice islands are a practical alternative for exploratory drilling in the shallow waters of the Beaufort Sea—they are cheaper and cause less environmental impact than gravel islands or bottom founded steel structures. The MMS is researching how to extend the life expectancy of an ice island through multiple winter seasons to accommodate extended exploration and delineation programs.





In 2003, MMS recognized the following companies for their exemplary efforts to protect workers and the environment:

**2002 SAFE Winners**  
High OCS Activity:  
Exxon Mobil Corporation

Moderate OCS Activity:  
Hunt Petroleum (AEC) Inc.

Drilling Contractor:  
ENSCO Offshore Company

Production Contractor:  
Island Operating Company

**2002 SOAR Winner**  
Dominion Exploration  
& Production, Inc.

## Safe and Clean Operations

**INDUSTRY DOING ITS PART** Over the last 50 years, the safety and environmental record of the offshore industry has dramatically improved. To attract the capital and expertise necessary to fully explore and produce resources in a safe and environmentally sound manner, MMS regulations are flexible and combine a strong systems approach to safety management with appropriate economic incentives to stimulate development. Today's advanced recovery techniques

allow for increased production, recovering 50 percent more oil and 75 percent more natural gas from a well than was recovered 30 years ago. Industry provides the initiative and technological innovation to constantly seek ways to develop and produce marginal fields and push the envelope for developing challenging frontiers, such as deep water fields.



In 2004, MMS recognized the following companies for their exemplary efforts to protect workers and the environment:

**2003 SAFE Winners**  
High OCS Activity:  
Stone Energy Corporation

Moderate OCS Activity:  
ConocoPhillips Company

Drilling Contractor:  
Helmerich & Payne

Production Contractor:  
Danos & Curole Marine  
Contractors, Inc.

**2003 SOAR Winner**  
Exxon Mobil Corporation

**HONORING SAFE OPERATIONS** Safety remains MMS's highest priority. The MMS conducts 18,000 inspections a year and recently began an interagency partnership with the U.S. Coast Guard, helping them perform platform inspections. The MMS encourages companies to achieve exemplary safety records by recognizing those companies that have the best safety records in each district. Additionally, MMS presents the National Safety Award for Excellence (SAFE) to OCS oil and gas operators and contractors who achieve the best safety and pollution prevention performance records.

The Safe Operations and Accurate Reporting (SOAR) award is presented to the best of the best in the industry, who demonstrate the highest commitment to safety, mineral revenue stewardship, and offshore resource management.

**OHMSETT** Large oil spills from offshore oil platforms are rare, but MMS continually tests new equipment and concepts at Ohmsett: The National Oil Spill Response Test Facility. This is the only facility capable of training and testing using full-scale oil spill response equipment and plays a critical role in developing the most effective technologies for detection, containment, and clean-up of oil spills.

In FY 2003, Ohmsett continued to provide a testing, research, and training facility to government, industry, academia, and private organizations. A program to determine dispersant effectiveness using six different Alaska crude oils in cold water conditions was conducted in

the winter of 2003. Another series of tests examined the fate of certain chemicals, called emulsion breakers, when used to increase the utility of temporary storage devices brought to the scene of an oil spill. Additionally, the facility was used for training oil spill response personnel from several oil companies, and training, unrelated to oil spills, by the U.S. Navy and Coast Guard.

**OIL SPILL RISK MANAGEMENT** The MMS partners with Federal, state, and local agencies in standardizing oil spill plan requirements, drill response standards and conducting regular drills. Some drills are attended by multiple agencies, including local counties, so that feedback is provided from a variety of perspectives.

The MMS was the first agency to conduct unannounced drills at offshore facilities. In FY 2003, a total of 21 unannounced drills occurred in the Gulf of Mexico Region. A total of 23 unannounced drills occurred in the Pacific Region during FY 2003.



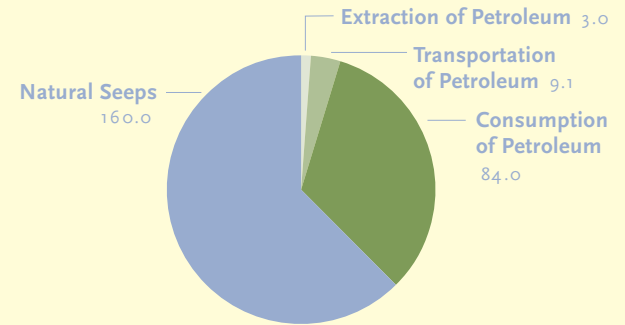




### Oil Spill Facts

According to a recently released report from the National Academy of Sciences, seeps from the earth's strata introduce about 1,700 barrels of oil a day in U.S. marine waters, which is about 150 times the amount from OCS oil and gas activities. Over the past 20 years, less than 0.001 percent of the oil produced in the U.S. state and Federal waters has been spilled. The study also found that leaks from platforms in Federal waters have decreased significantly over the past 29 years. In FY 2003, the oil spill rate from offshore operations was 0.000004 barrels of oil spilled per barrel produced.

### Average Annual Releases in North American Waters (kilotonnes)



Figures for 1990–1999, from *Oil in the Sea III: Inputs, Fates, and Effects*, National Academies Press, 2003

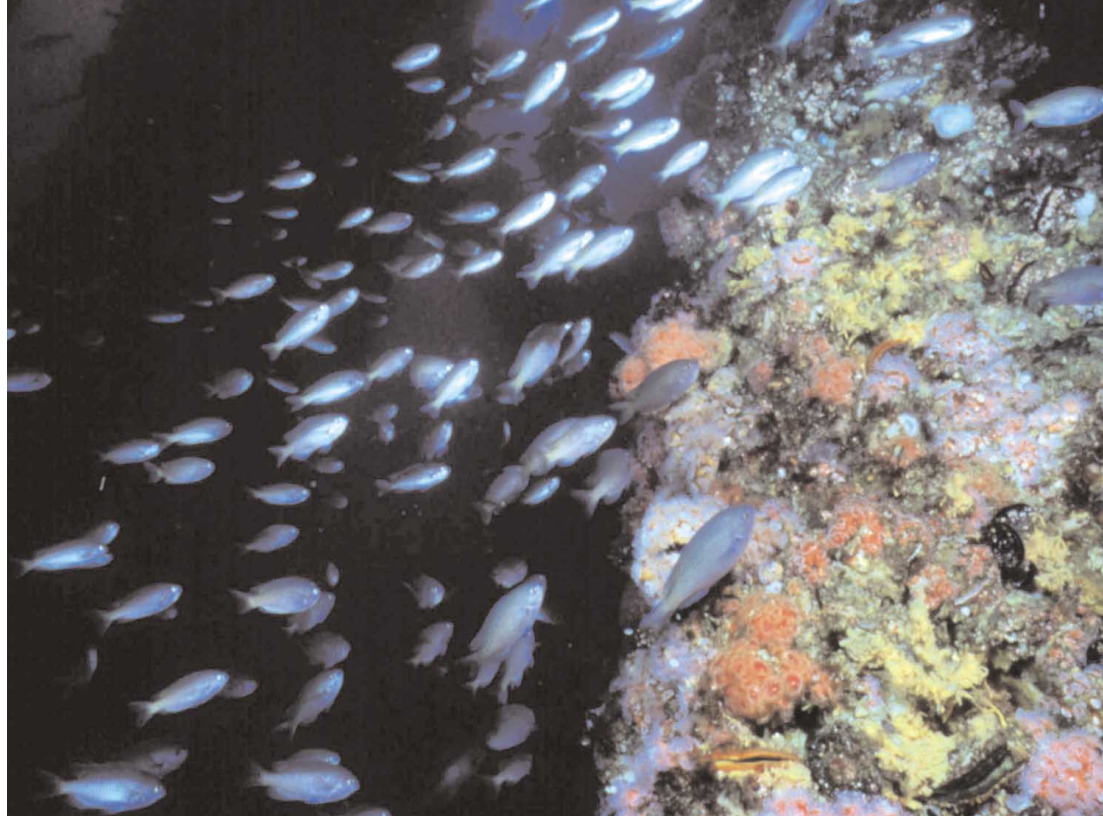
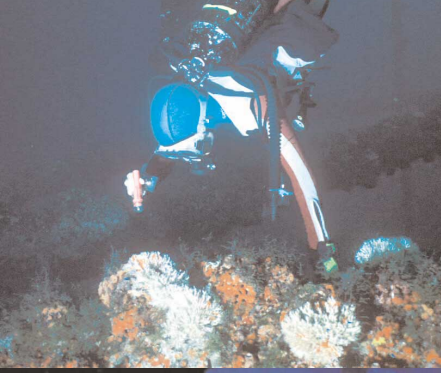
### Safety Index

As part of its ongoing safety efforts, OMM began conducting annual operator performance reviews several years ago. These reviews provide a forum for MMS and the operators to maintain a dialogue about performance. In FY 2003, MMS set a goal of maintaining an annual composite operator safety index of 0.2 or less, and offshore operators succeeded in exceeding this goal with an index of 0.17.

### Oil Spill Workshop

The MMS and the Department of State will conduct an oil spill workshop in Singapore in 2004 under the auspices of the Asia Pacific Economic Cooperation forum.





Even after 50 years, the Gulf of Mexico remains a vibrant and changing source of oil and natural gas. There is now gas production from the Canyon Express project in 7,000 feet of water.



**ANTICIPATING FUTURE NEEDS** The MMS is addressing platform decommissioning needs off southern California through the Interagency Decommissioning Working Group, formed in 1997 by a group of Federal, state, and local government agencies. The working group meets six times a year to review the status of ongoing and proposed decommissioning projects and proactively address issues and data gaps associated with those projects.

**RIGS-TO-REEFS** In support of the National Artificial Reef Plan published by the National Oceanic and Atmospheric Administration, National Marine Fisheries Service, and in response to its stakeholders, MMS adopted a national policy for “rigs-to-reefs” (RTR)—a term used

for converting decommissioned offshore oil and gas structures to artificial reefs. Coastal states with approved artificial reef plans can identify sites suitable for artificial reef development. When an obsolete platform successfully becomes part of an artificial reef site, half of the monetary savings realized by the OCS industry by not having to dismantle these structures goes to the states to administer RTR programs. So far, over \$20 million has gone to the states to fund fisheries conservation, research, and management.



# The MMS Business Model

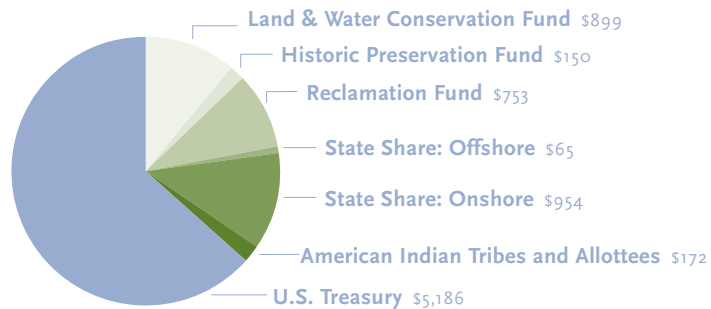


Johnnie Burton, MMS Director, and Debbie Gibbs Tschudy, MRM Assistant Program Director for Compliance and Asset Management, tour the Navajo reservation with representatives of the Navajo Nation. The Navajo Nation representatives are (from left to right) Aktar Zaman, Rowena Cheremiah, and Perry Shirley. During 2003, the MMS Director visited six major energy-producing tribes for which MMS collects royalties.

**COLLECTING AND DISTRIBUTING REVENUE** Since its establishment in 1982, MMS has collected and distributed over \$135 billion to Federal, state, and American Indian accounts, the General Fund of the U.S. Treasury, the Historic Preservation Fund, and the Land and Water Conservation Fund. In FY 2003, these revenues totaled over \$8 billion.

In FY 2003, MMS distributed more than \$1 billion to 35 states as their share of revenues associated with mineral leases on Federal public lands located within their borders and adjacent to their seaward boundaries. The money represents the states' share of collected bonuses, rents, and royalties. For the majority of Federal lands, states receive a 50 percent share. Alaska gets a 90 percent share, as prescribed by the Alaska Statehood Act. Some coastal states receive 27 percent of the mineral receipts within the first three miles of the Federal OCS adjacent to their seaward boundaries.

**MMS Distributions FY 2003** (millions)



**BALANCING SPEED AND ACCURACY** Prompt access to the allotted revenues by states and American Indians is essential; accordingly, MMS disburses revenue within one month of receipt. In FY 2003, MMS exceeded its target of 92 percent timely disbursement of revenues to recipients. The MMS achieved its FY 2003 goal of significantly increasing disbursement timelines over FY 2002's 80 percent by working with companies to increase reporting accuracy and increasing the accuracy of the financial system's payment matching process. In fact, MMS disbursed 99.3 percent of American Indian revenues that it received to the Office of Trust Funds Management within 24 hours of receipt.

The MMS also verifies company compliance to ensure that optimal value for energy resources is received by the American taxpayer and Indian recipients. This is a more complex and challenging assignment than one might think because of the nature of valuing business transactions in the oil, gas, and minerals industry. For the second year in a row, MMS achieved its goal of completing the audit cycle in three years.

## Clean Financial Audit

The annual Chief Financial Officer's Act audits of MMS financial statements include a thorough review of MMS's financial activities and mineral revenue custodial accounts. These audits ensure that the MMS financial statements fairly represent the transactions recorded within the MMS financial management system. The MMS received an unqualified audit opinion in 2003.





### American Indian Services

In accordance with the Department of the Interior's special Indian Trust responsibility, MMS stepped up outreach efforts with tribes and the 30,000 individual American Indian mineral owners. In FY 2003, Director Burton made six visits to tribes. Also during FY 2003, MMS held meetings with Tribal Councils and 69 sessions on reservations and fielded over 6,800 hotline inquiries .

One of MMS's key objectives is to support the Department of the Interior's Indian Trust principle of promoting American Indian empowerment over tribal trust lands and resources. The MMS uses the Intergovernmental Personnel Act (IPA) Fellowship Program as a means to achieve this goal. Under the IPA Fellowship Program, a participating tribe selects employees to learn more about MMS accounting and auditing practices. By working directly with their MMS counterparts, the tribes currently participating—including the Chippewa-Cree and the Hopi—are developing their auditing skills and enhancing their knowledge of minerals and royalty management. This puts both tribes on their way to performing their own audits. The MMS has established 10 of these tribal internships to date. In FY 2003, tribes managed audit activities for 88 percent of tribal mineral royalties, meeting the MMS goal for the year.



### Stewardship Award

The Mineral Revenues Stewardship Award recognizes companies that demonstrate exceptional compliance with minerals revenue laws and Federal financial requirements. MMS recognized the following companies for exemplary performances: Conoco Inc., Red Willow Production Company, and Kennecott Energy Company in 2002; and Exxon Mobil Corporation and Noble Energy, Inc. in 2003.



## Offshore Royalty-In-Kind

### OIL

The MMS takes in kind more than 80 percent of total Gulf of Mexico (Gulf) oil royalties and 78 percent of total Pacific oil royalties.

### Strategic Petroleum

**Reserve:** 130,000 barrels per day from the Gulf.

### Small Refiner

**Program:** 50,000 barrels per day from the Gulf, 10,000 barrels per day from the Pacific.

### GAS

The MMS takes in kind approximately 25 percent of the total Gulf gas royalties.

**Gulf Gas RIK Program:** 500,000 MMBtu per day.

**ROYALTY-IN-KIND PROGRAM** The MMS is continually looking for opportunities to improve efficiency in fulfilling its royalty collection responsibilities. The bureau is authorized to take the government's royalty share of production from oil and gas leases in-kind rather than in-value. Royalty-in-kind (RIK) is a viable asset management option where its application is at least revenue neutral and promotes efficiency and cost effectiveness for both the government and industry.

Since 1998, MMS has conducted pilots testing the RIK option. Based on the success of the RIK pilot projects, MMS adopted RIK as a royalty asset management method to be used concurrently with the traditional royalty in value method. Fiscal Year 2003 witnessed the implementation of three new RIK management information systems ahead of schedule. Gas Management and Liquid Management Systems were integrated with the MRM system, by using commercial off-the-shelf software. A Risk and Performance Management System

was designed and implemented to measure the revenue effectiveness of the RIK program. Commercial consulting recommendations on performance metrics from the Lukens Energy Group were incorporated into this system, and initial measurements of RIK revenue performance were implemented in early 2004.

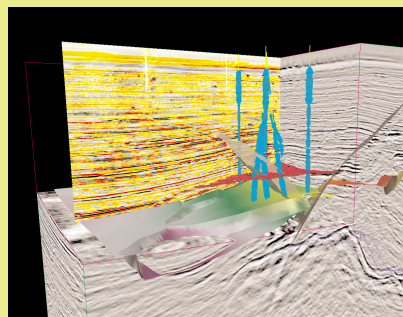
### STREAMLINING BUSINESS THROUGH

**E-GOVERNMENT** In response to a mandate from the President and Congress to deliver government electronically, MMS is building close relationships with stakeholders and improving its flexibility as a bureau to keep pace with the best practices and the latest developments in information technology. Already, MMS is receiving 99 percent of mineral revenue reports electronically.

“RIK is a real, if largely untold, American success story. It demonstrates how the public can benefit when the minds and energies of private enterprise and Federal agencies focus in concert to do the best thing for America.” — DAVID BLACKMON, MANAGER, CORPORATE AFFAIRS, BURLINGTON RESOURCE OIL & GAS, CO, LLP, AND CHAIRMAN, ROYALTY STRATEGY TASK FORCE

**KEEPING YOU CONNECTED** The MMS embarked on the first phase of a five-year transformation that will dramatically streamline business operations by FY 2008. The MMS's OCS Connect project will reform the way the bureau operates by moving to online services. For example, stakeholders will be able to track online the progress of permit applications as easily as an overnight package can be followed online.

The web-based OCS Connect project will streamline delivery of essential information by automating major business transactions and minimizing redundant reporting. A Public Commenting System will provide online access for rulemaking, environmental impact statements, lease sale documents and selected permit, and plan documents. It will also provide customized service for inquiries and requests under the Freedom of Information Act.



### Data Asset

One of MMS's hidden assets is its wealth of seismic information received from industry. The evolution of 3-D seismic information, in conjunction with interactive computer workstations, has made it possible to more closely define and assess potential oil and natural gas occurrences on the OCS. Last year, MMS acquired 3-D seismic information on a record 7,182 OCS blocks, bringing the bureauwide total to over 33,000 blocks of 3-D seismic information. This complements the bureau's total of over 1,735,000 line miles of 2-D seismic information on the OCS.



## Partnering for Success

The MMS, along with other bureaus and offices, plays an essential role within the Department of the Interior. The bureau works in close partnership with the Department to honor the financial trust responsibilities to American Indians, Alaska natives and island communities, conduct scientific research, provide stewardship of energy and mineral resources, and manage millions of acres of sub-merged public lands.

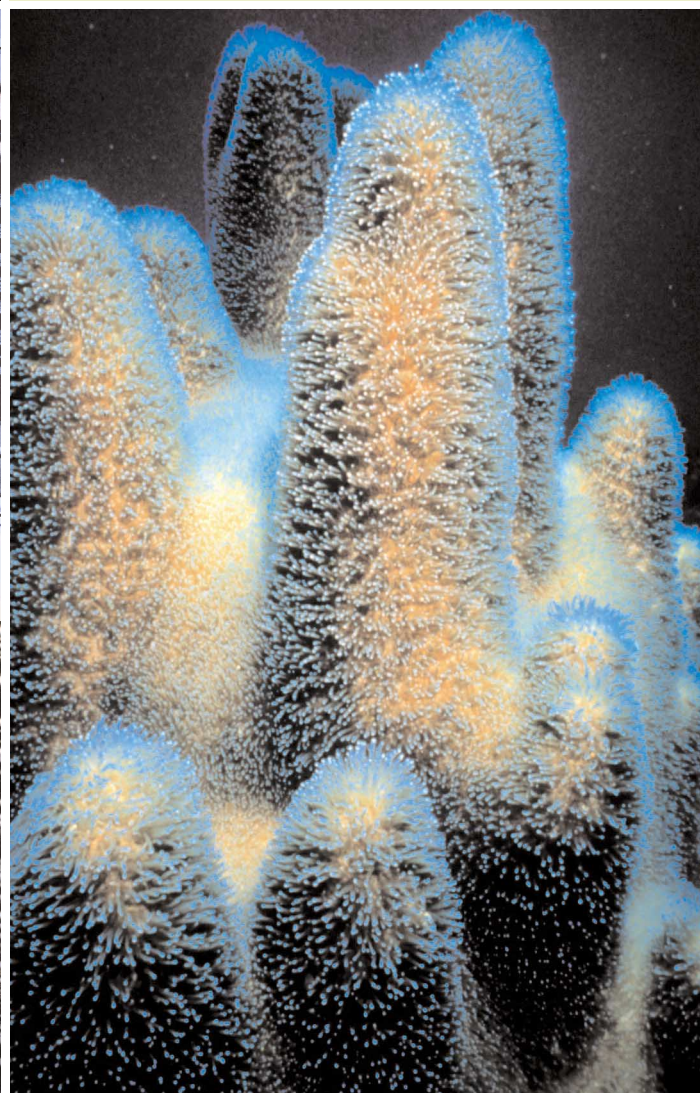
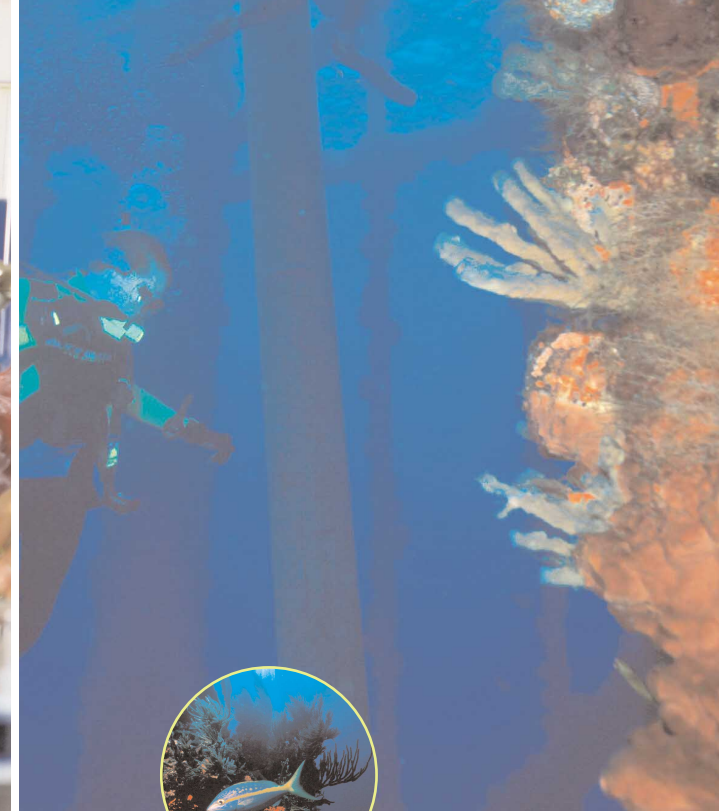
**LEVERAGING RELATIONSHIPS** The MMS has a long history of innovative partnership with its stakeholders. The MMS has had delegated and cooperative audit agreements with states and tribes since the early 1980's. The newest delegated agreement was established in 2004 between MMS and the State of Alaska, bringing the number of delegated audit agreements with states to eleven. The MMS also has cooperative audit agreements with eight tribes. Under these agreements, states and tribes currently conduct audits of Federal or tribal lease revenues on behalf of MMS. The partnerships provide increased coverage of the many leases in production.

Key MMS managers and technical experts meet on a quarterly basis with the State and Tribal Royalty Audit Committee. These meetings ensure a fair return for minerals produced on public and tribal lands, consistent application of government auditing standards, issue resolution, and continuing dialogue on MMS's policies and procedures, .

**AN MMS/STATE PILOT PARTNERSHIP** The MMS began awarding sales contracts in August 2003 as part of a joint RIK pilot project between the MMS and the State of Louisiana. As part of the pilot project, the MMS and the State of Louisiana agreed to joint decisionmaking on all aspects of commercial sales of RIK energy commodities, providing the State with a more active role in managing its oil resources. This project tests the potential for sales of RIK oil and gas to increase revenues and decrease administrative costs from managing mineral royalties resulting from the production generated on leases within the 8(g) zone offshore Louisiana. Initial deliveries of RIK crude oil and natural gas within the new MMS/State of Louisiana RIK pilot project began in late 2003. The MMS began taking and selling nearly 500 barrels of oil per day and 21,000 MMBtu of gas per day produced from leases in the 8(g) zone offshore Louisiana. The Government shares 27 percent of royalties from these leases with the State.



**The MMS's current five-year oil and gas leasing program will make available from 10.2 billion to 21.5 billion barrels of oil and 40 to 60.6 Tcf of natural gas and produce billions of dollars in revenue for Federal and state governments.**



### **Solidifying Connections**

The MMS recently created the James B. Griffith Award in honor of Wyoming State Auditor James B. Griffith, who played a key role in getting states and American Indian tribes to participate with the Federal Government in mineral audit activities. In 2003, the award was presented to Utah's State Tax Commission, Brenda Petersen of Colorado, and Ellwood Soderlind of Wyoming to recognize superior contributions to the success of the MMS mission. Award recipients are longtime participating members of The State and Tribal Royalty Audit Committee.





America uses almost 20 million barrels of oil per day to fuel automobiles and airplanes, power factories, and generate the electricity needed to heat and cool homes. One year of OCS production could support almost four million Americans with oil for their homes, farms and industries for 45 years, and enough natural gas for 43 years.

### **Partnering with the Bureau of Land Management in Alaska**

The Alaska Region of MMS supported the DOI mission by assisting the Bureau of Land Management in the preparation of environmental documents supporting proposed oil and gas leasing in the Northwest National Petroleum Reserve-Alaska (NPPRA). In January 2003, the draft environmental impact statement for the Northwest NPPRA Draft Integrated Activity Plan was published and filed with the Environmental Protection Agency (EPA). After hearings in the spring of 2003, MMS was asked to make revisions. The final environmental impact statement was published and filed with the EPA in November 2003. The MMS also assisted in the preparation of the Biological Assessments and the Section 7 Endangered Species Consultations. Since the fall of 2003, MMS has been preparing the Consistency Determination to be filed with the state in 2004. The first sale in the Northwest NPPRA is scheduled for June 2004.

**The MMS works hard to balance the wise use of America's natural resources with a solid commitment to the conservation of energy and preservation of nature's bounty.**







**PROTECTING OUR CULTURAL HERITAGE** As a charter member of the National Oceanographic Partnership Program (NOPP), MMS is working to improve coordination across the oceanographic community. For example, MMS, through NOPP, partnered with the National Oceanic and Atmospheric Administration's (NOAA's) Office of Ocean Exploration to initiate a study of deep water WWII shipwrecks in the Gulf of Mexico. This groundbreaking archaeological investigation will document these shipwrecks and use them as a laboratory to examine the potential of a deep water artificial reef effect. Field work for this study will commence during the summer of 2004.

Looking into the future, MMS is participating on the Executive Committee of Ocean.US. Stemming from a congressional request, NOPP established Ocean.US to serve as the Nation's focal point for developing an Integrated Ocean Observing System (IOOS). When completed, IOOS will provide one-stop shopping for fishermen, researchers, the offshore industries, and others in need of basic oceanographic data and information.

**COASTAL MARINE INSTITUTES** The MMS partners with academic institutions near each of its regional offices, pooling resources and knowledge in an effort to gather scientific information relevant to offshore oil and gas and marine mineral development. The Coastal Marine Institutes (CMI) are located in Alaska, California, and Louisiana.

During 2003, the CMI partnership between the MMS and the University of Alaska resulted in workshops, summarizing information and focusing future research, as well as projects studying ocean currents and marine animals and birds that inhabit the Arctic.

During one of the studies, observations from the satellite tracking of Eastern Chukchi Sea Beluga Whales in the Beaufort Sea and Arctic Ocean, indicated that Belugas were often found in water deeper than 200 meters north of the continental shelf break. The study concluded that Belugas rarely used inshore waters near the OCS lease sale areas of the Beaufort Sea.

In 2003, the CMI partnership between the MMS and the University of California at Santa Barbara continued scientific investigation of the biology and reproductive ecology of organisms living on oil and gas platforms offshore California. Research also examined the contribution of large natural oil seeps offshore Santa Barbara to coastal air pollution.

The CMI partnership between MMS and Louisiana State University facilitates studies in physical oceanography, water quality, fisheries, and effects of oil spills, as well as social and economic issues in Louisiana. In 2003, the CMI completed 8 studies. One recent publication, titled "Modeling the Economic Impacts of Offshore Oil and Gas Activities in the Gulf of Mexico: Methods and Applications," will be used during future assessments within the Gulf of Mexico. The researchers learned that the model specific to the Gulf provided significantly different results when compared to a standardized model. It appears economic models specific to regional areas provide greater insight than generalized models; this information is vital to understanding the appropriate method for economic modeling within future studies.



**A MODEL PARTNERSHIP** The Multi-Agency Rocky Intertidal Network (MARINE) is dedicated to the long-term monitoring of rocky intertidal systems along the shoreline. Initiated in 1995 by MMS and nine partners, MARINE expanded over the years and now includes 23 partners from local, state and Federal agencies, private and public universities, and private institutions. The partnership monitors sites ranging from California to Alaska to mainland Mexico. The MMS uses the information, gathered collaboratively, to determine the contribution made by OCS production operations to impacts on shoreline resources.

The MARINE partnership noted multiple accomplishments for FY 2003. They completed comprehensive surveys at 83 monitoring sites. Monitoring sites were added in Alaska and California, creating continuous sampling along the Pacific coastline. They also presented multiple peer-reviewed papers at conferences across the country, and created and posted new public and private web sites online.

**The MMS is an active partner in the Louisiana Science Teachers Association, joining this special group of interdisciplinary educators dedicated to improving science education.**

**PRESERVING OUR COAST** Louisiana's outer coastline is currently eroding at an alarming rate of 50 feet per year, making the state the erosion hot spot of America. In May 2003, MMS helped with a coastal restoration project that will protect fragile wetlands at Holly Beach in Cameron Parish—an area that has long been a high priority of the state's coastal restoration program. Working with the Louisiana Department of Natural Resources during the environmental review process, MMS authorized the removal of over four million cubic yards of sand from two Federal offshore sites. The project, completed in May 2003, helped reverse Holly Beach's erosion and protect over 10,000 acres of wetlands critical to the sustainability of the communities in the Parish.

Beach erosion is also a national problem. Nearly 80 percent of the U.S. coastline has been impacted. Coastal storms and other factors contribute to the problem. The MMS works with coastal states to help restore damaged or eroded coastlines by finding new sand supplies in Federal waters. For example, MMS worked with Virginia using sand reserves from Sandbridge Shoal to widen five miles of oceanfront beach by 100 to 150 feet. This project, completed in 2003, was instrumental in protecting the Sandbridge community from the worst of Hurricane Isabel's destruction. The MMS continues its search for new sand deposits that can be developed in an environmentally responsible manner to meet future needs for mitigating coastal erosion.





### **Global Partnering to Address Environmental Concerns**

While MMS's focus is on domestic mineral resources, the industry that it regulates is global. The MMS takes an active approach to identify and participate in international initiatives that promote better integration of safety and environmental concerns into offshore development decisionmaking. The MMS is proud to be recognized as a world leader in the management of offshore mineral resources.

The MMS's international activities focus on: providing technical advice to the Department of State; monitoring, developing and refining safety and environmental standards; and engaging in technical and information exchanges with its international regulatory counterparts.



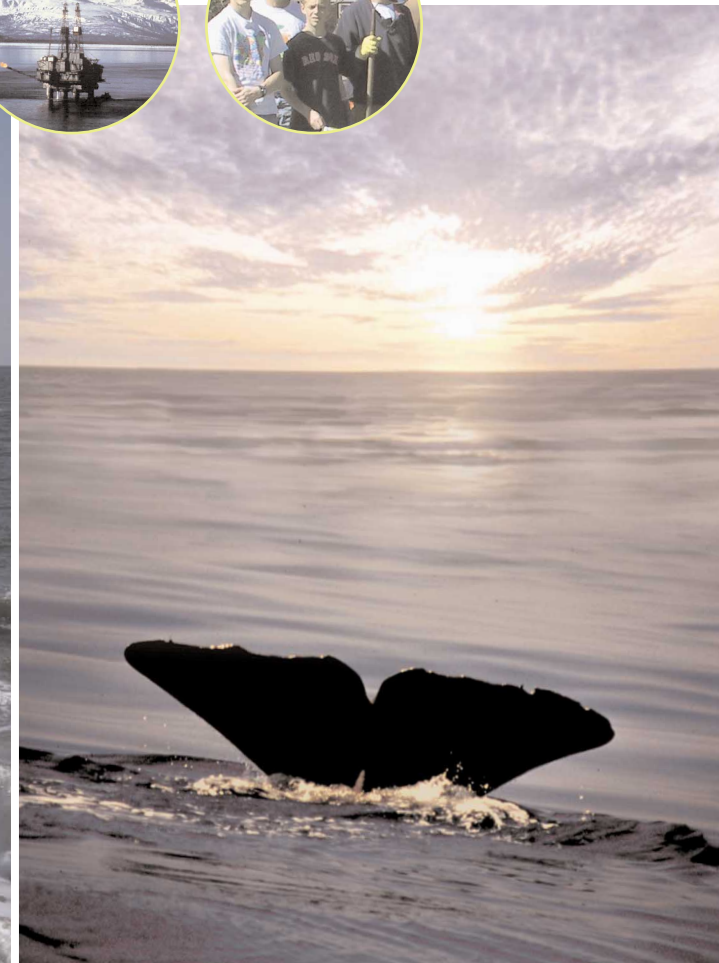




**SPERM WHALE STUDY** The MMS is working to determine if offshore industry noise, specifically marine seismic operations, represents a threat to sperm whales and other cetaceans. The bureau seeks a means to mitigate possible effects. With co-sponsorship from the Office of Naval Research, the National Science Foundation, and an “Industry Coalition” (seismic and oil companies), an MMS–Texas A&M Research Foundation management team assembled a research group that includes scientists from the Woods Hole Oceanographic Institute, Scripps Institution of Oceanography, Oregon State and Texas A&M Universities, and international experts from St. Andrews and Durham Universities in the United Kingdom.

Research performed in FY 2003 provided information about sperm whale behaviors and group composition within the Gulf of Mexico. Satellite tags show sperm whales move throughout the Gulf of Mexico predominantly in water depths of 1,000 meters. Digital tags indicate normal sperm whale diving and vocalizations continue in the presence of airguns at exposure levels of about 145 db (greater levels have not been tested). Study efforts will continue in 2004, the third field season, with continued tagging, DNA sampling to further clarify the genetics of whales found in the Gulf of Mexico, physical oceanographic correlations, and new emphasis on ambient noise measurements and the calibration of industry noise sources.

“A small bureau with a large impact, the Minerals Management Service will continue to work for the best means to ensure that the Nation receives the fairest value for its precious resources now and in the future.” – R.M. “JOHNNIE” BURTON







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