

**ISSUES ASSOCIATED WITH OFFSHORE OIL AND GAS  
DEVELOPMENT IN THE GULF OF MEXICO**

**TESTIMONY OF CHRIS C. OYNES  
REGIONAL DIRECTOR, GULF OF MEXICO OCS REGION  
MINERALS MANAGEMENT SERVICE  
U.S. DEPARTMENT OF THE INTERIOR**

**BEFORE THE  
U.S. COMMISSION ON OCEAN POLICY  
NEW ORLEANS, LOUISIANA  
MARCH 8, 2002**

## **ISSUES ASSOCIATED WITH OFFSHORE OIL AND GAS DEVELOPMENT IN THE GULF OF MEXICO**

Mr. Chairman and Members of the Commission on Ocean Policy, my name is Chris C. Oynes and I am the Regional Director of the Minerals Management Service's (MMS) Gulf of Mexico Regional Office. The Gulf Regional Office, located here in New Orleans, has jurisdiction over outer continental shelf (OCS) activities in both the Gulf of Mexico and Atlantic OCS areas (over 400 million acres). I appreciate the opportunity to appear before you today to present testimony on MMS's offshore energy and minerals programs and issues facing us in the Gulf.

### **BACKGROUND**

The U.S. Department of the Interior's MMS has oversight responsibilities for some 1.9 billion acres of federal OCS lands, an area roughly five times the size of Alaska. We administer more than 8,000 active leases and regulate the operation of some 4,000 offshore oil and gas structures and more than 28,000 miles of marine pipelines, most of which lie offshore the Gulf States of Texas, Louisiana, Mississippi and Alabama. Today, OCS oil and natural gas production accounts for more than 27 percent of the Nation's total domestic oil and gas production. Since the early 1950's, the OCS has produced more than 12 billion barrels of crude oil and over 135 trillion cubic feet of natural gas. In the Gulf of Mexico alone, daily production is on the order of 1.4 million barrels of crude oil and over 14 billion cubic feet of natural gas. This past year, MMS collected and distributed over \$10 billion in mineral leasing revenues from Federal and American Indian lands.

### **RECENT HIGHLIGHTS**

Let me highlight some recent accomplishments in MMS's offshore program:

- The first production from the Alaska OCS began in 2001 from BP's Northstar project in the Beaufort Sea.
- MMS has now provided 13.1 million cubic yards of sand for beach renourishment to the States of Florida, Maryland, Virginia and South Carolina.
- BP announced the largest oil and gas discovery ever made offshore in the Gulf of Mexico in February 2001. BP's "Thunder Horse" project has discovered over 1 billion barrels.
- In the deepwater portion of the Gulf of Mexico more than 54 projects have begun production.
- Union Oil of California recently drilled an exploratory well in a world's record water depth of 9,757 feet in the Gulf of Mexico. This project called "Trident," is 172 miles offshore Texas and is close to the border with Mexico.

- MMS continues to place top priority on ensuring that all OCS activities are conducted safely and in an environmentally sound manner. This includes conducting scheduled and unscheduled inspections. In 2001, MMS conducted over 18,000 inspections of OCS facilities.
- Under our rigs-to-reefs movement, obsolete nonproductive oil and gas platforms become artificial reefs providing habitat for fish and other marine life. We work with Texas, Louisiana and Mississippi under their formal programs. Some 144 retired platforms have been used as artificial reefs.
- Organizes and participates in international oil and gas forums comprised of industry representatives and government regulators from many countries to address challenges and opportunities in achieving safe and clean operations here in the United States and around the world.

The MMS is a progressive, effective agency. Our goal is to "be the best in the business" by providing high quality service and information, reducing costs, increasing efficiency, and employing automation and innovation. In its role as manager of the Nation's OCS energy and nonenergy mineral resources, MMS's long-term strategy seeks to—

- assess the availability of OCS energy and nonenergy resources;
- determine, in consultation with affected parties, if the resources can be developed in an environmentally sound manner; and
- regulate all operations activities when leasing occurs to ensure safety and environmental protection.

This strategy shapes the way MMS manages OCS resources and fulfills both the Nation's energy needs and protects the environment and other natural resources.

The MMS recently celebrated its 20<sup>th</sup> anniversary. Though the MMS was conceived in 1982, the OCS Program has existed for close to a half a century. Since the last major rewrite (in 1978) of the statutory basis for the OCS oil and gas program, there have been dramatic changes in the program—largely in the Gulf of Mexico. One of the big changes has been in the number of leases that are being worked.

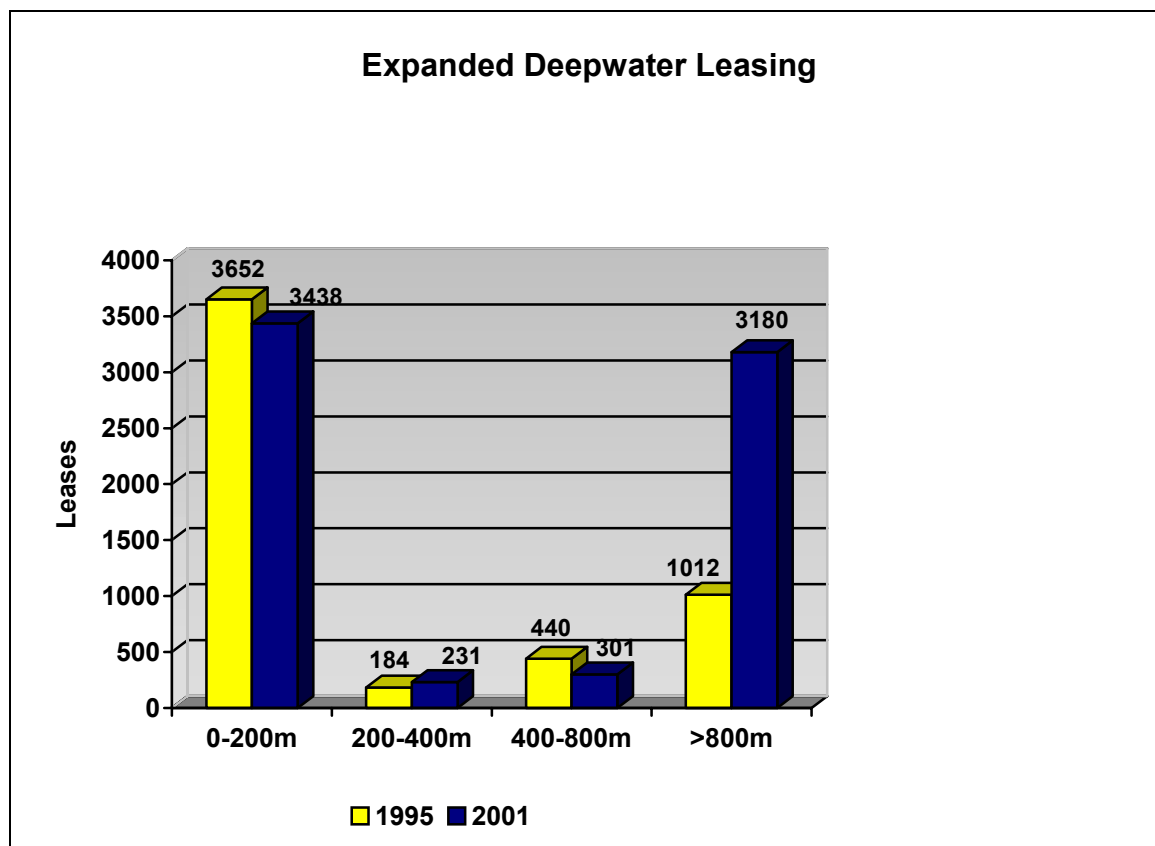
## **MAJOR MMS ISSUES**

### ***Deepwater Development.***

Starting in 1996, an unparalleled expansion of activity began in the deepwater areas of the Gulf of Mexico. While there are many possible definitions of what constitutes deepwater, I will use a common definition – 1,000 feet of water. (Some companies use 1,500 feet.)

In 1996, 1997, and 1998 MMS saw an unprecedented expansion of deepwater leases. Many record-breaking lease sales in terms of acreage leased were held. Figure 1 indicates the

tremendous shift that occurred with leases in 800 meters (2,400 feet) of water or greater from 1995 to 2001.



**Figure 1--Expanded Deepwater Leasing**

From deepwater projects leased prior to 1996, there also came a surge in production in the deepwater area. Figure 2 indicates the steep rise in oil production that occurred with deepwater oil production growing 276 percent from 1996 to 2000. Figure 3 indicates the same trend for deepwater natural gas. Deepwater is truly America's new frontier as illustrated by Figure 4. Deepwater oil production now accounts for more than half of the Gulf's total production, whereas deepwater natural gas production accounts for 20%.

These trends are likely to continue. MMS recently released a study on the 2000 assessment of conventionally recoverable hydrocarbon resources, reserves, production and geologic data. 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.

Figure 2--Gulf of Mexico Deepwater Oil Production

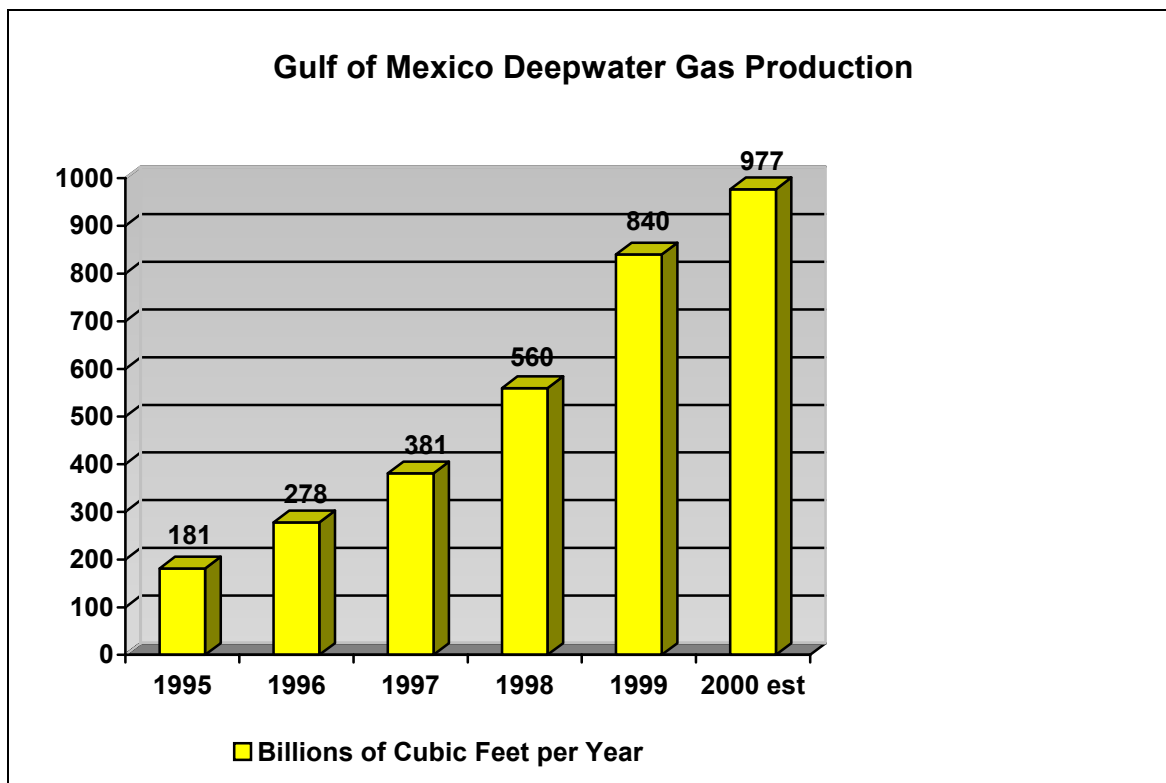
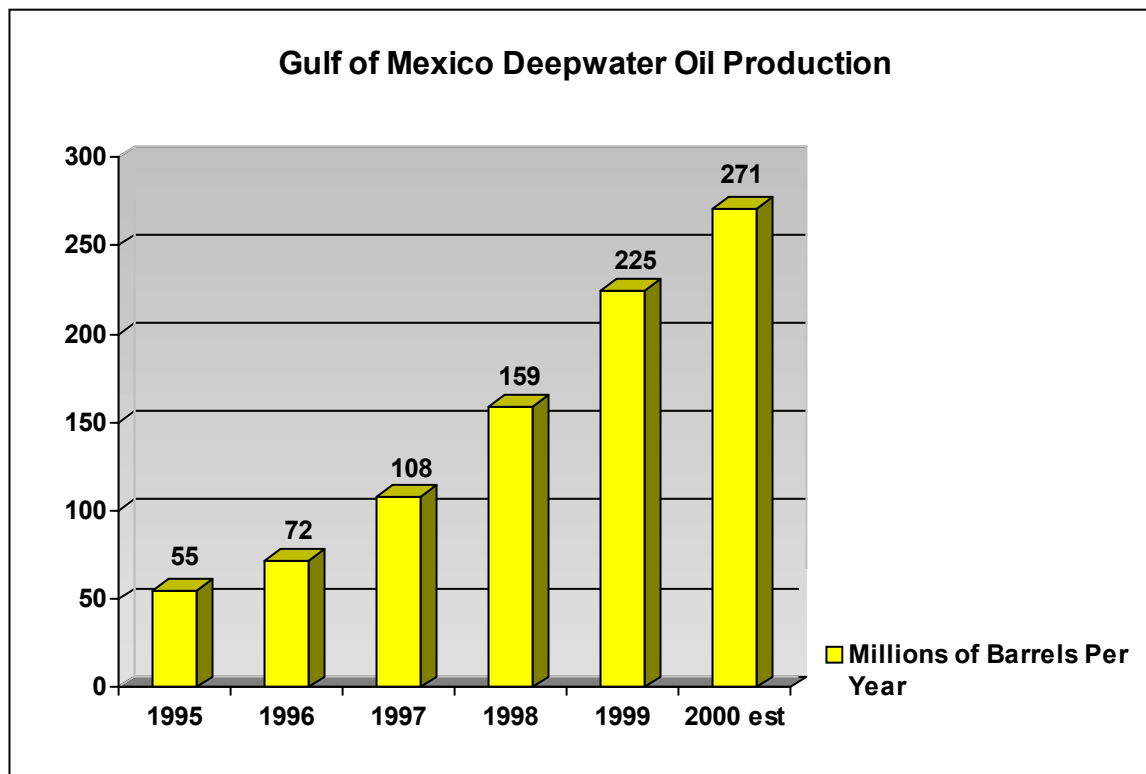
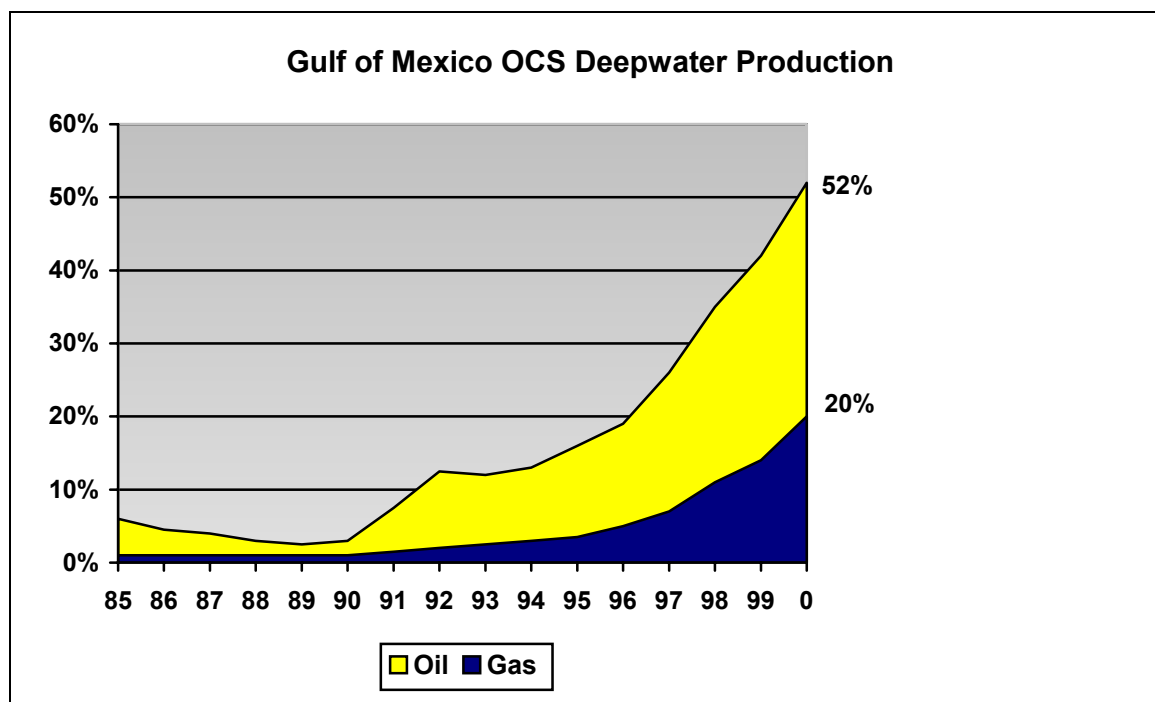


Figure 3--Gulf of Mexico Deepwater Gas Production



**Figure 4--Gulf of Mexico OCS Deepwater Production (Percent of Gulf Production)**

MMS is now close to finalizing a new OCS oil and gas leasing program to cover 2002-2007. The approval of the new 5-year program will take effect on July 1, 2002. The proposed program schedules 20 oil and natural gas lease sales in eight federal OCS areas between 2002 and 2007. It includes sales in the Gulf of Mexico's Western, Central and part of the Eastern planning areas; and Alaska's Beaufort Sea, Norton Basin, Cook Inlet/Shelikof Strait and the Chukchi Sea/Hope Basin. The proposed program does not include any areas currently under moratoria or presidential withdrawal.

Ultra-deepwater development will be the next phase of this push. Exploration and development activity in water deeper than 5,000 feet is just starting to open up. Seventy-one wells were drilled in water depths of 5,000 feet or greater in 2001.

### *Deep Gas in Shallow Water*

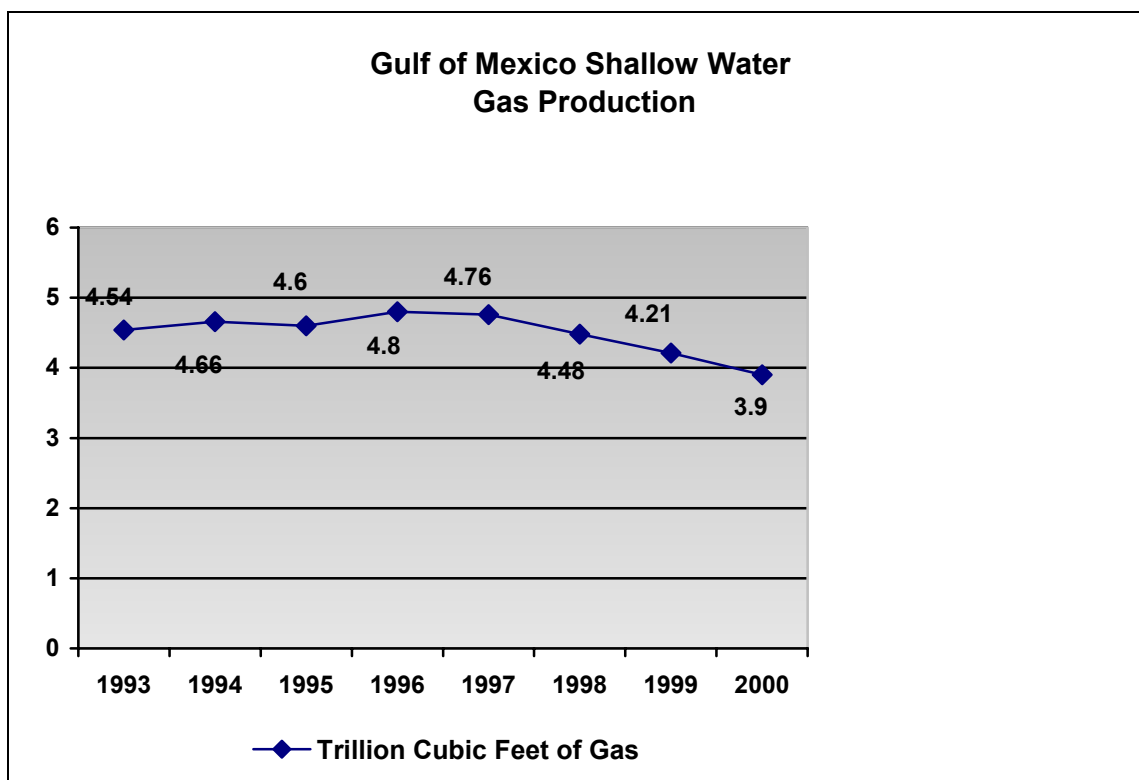
Natural gas production from the ocean is one of America's greatest assets. Some 27 percent of total domestic gas production comes from the OCS--98 percent of it from the Gulf. Despite the substantial rise in natural gas production in the deepwater, 80 percent of the of the natural gas production from the ocean comes from shallow water. Yet as Figure 5 indicates, shallow water gas production is in decline--some 17 percent in two years.

MMS has recently adopted an initiative to try to reverse this trend. Beginning in 2001, MMS offered an incentive provision for new leases in shallow water. Under the provision, a developer that drills a well into a deep formation (greater than 15,000 feet) and finds natural gas will owe

no royalties on the first 20 Bcf of gas production. This incentive will foster increased efforts to tap deep gas resources.

### *Ability to Integrate Conflicting Mandates*

Among its strongest successes, MMS has managed to combine the different mandates under different laws into a cohesive program. MMS has merged the commands of at least 10 major laws to produce a growing level of energy production. These laws include the OCS Lands Act, the National Environmental Policy Act, the Coastal Zone Management Act, the Endangered Species Act, the Oil Pollution Act, the Deepwater Royalty Relief Act, Marine Mammal Protection Act, Clean Water Act and the Clean Air Act.



**Figure 5--Gulf of Mexico Shallow Water Gas Production**

### *Safety*

As stewards of more than a billion offshore acres, the workplace for some 30,000 people, MMS regards the safety of personnel, protection of the environment, and safety of operations as its top priorities. MMS devotes constant attention to safety through engineering reviews of plans and permits, training, inspections and, if necessary, assessing penalties for failure to comply with regulations. These programs contribute to industry's excellent safety record. Federal law requires an annual inspection of every offshore production and drilling facility. Inspections are carried out nearly 365 days per year, weather permitting. Inspectors evaluate the overall

condition and compliance record of a particular facility and its operations, including safety, pollution prevention, and metering equipment.

Last year MMS conducted over 17,000 inspections of industry operations.

MMS also works closely with the U.S. Coast Guard.

The OCS oil and gas program has a remarkable safety record. Major accidents are infrequent, major oil spills are rare and getting rarer. Personnel injury rates for OCS workers are very low for a major industry.

Let me illustrate this with some data.

	1995	1996	1997	1998	1999	2000	2001
Major Oil Spills*	0	0	0	0	0	0	0
Major Fires**	0	3	2	2	3	1	2
Fatalities	8	10	11	14	5	5	7

\* Spills of greater than 10,000 barrels. \*\* Fires with greater than \$1 million in damage.

With a total production of six billion barrels of oil during 1985 to 2000, only 48,000 barrels were spilled, less than one one-thousandth of one percent.

### ***Sand Program***

The agency also supports a vibrant, non-energy minerals program. Currently, that program's major focus is on OCS sand and gravel. The MMS has a number of cooperative partnerships with several Atlantic and Gulf Coast states to identify sand deposits in Federal waters suitable for beach nourishment.

### ***Scientific and Technical Research***

The MMS Environmental Studies Program (ESP), initiated in 1973, gathers and synthesizes environmental, social, economic, and scientific information to support decision-making concerning the offshore oil and gas program. The OCS Lands Act established policy for the management of OCS natural gas and oil leasing and for the protection of marine and coastal environments. Section 20 of the Act authorizes the ESP and establishes three general goals for the program:

- establish the information needed for assessment and management of environmental impacts on the human, marine, and coastal environments of the OCS and the potentially affected coastal areas;
- predict impacts on the marine biota which may result from chronic, low-level pollution or large spills associated with OCS production, from drilling fluids and cuttings discharges, pipeline emplacement, or onshore facilities; and



- monitor human, marine, and coastal environments to provide time series and data trend information for identification of significant changes in the quality and productivity of these environments, and to identify the causes of these changes.

The collaborative and coordinated efforts in priority setting and leveraging of funds of the ESP, the Technology Assessment and Research program, and the Oil Spill Research program provide essential research to base decisions on available science. Because the research costs of working in deep water are significantly higher than working on the continental shelf, MMS, through the ESP, is partnering with other federal and State governments, with academic institutions, and with industry in an attempt to provide information in the most cost-effective manner.

Since its inception in 1973, the Studies Program (OCS-wide) has funded more than \$712 million in marine, coastal, and socioeconomic research. Today's funding level in the Gulf of Mexico Region is around \$10 million. Several deepwater studies will be underway in FY 2001, including but not limited to *OCS-Related Infrastructure in the Gulf of Mexico*, *Assessment of Potential Conflict Between the Fishing and Oil Industries in Deep Waters of the Gulf of Mexico*, *Northern Gulf of Mexico Continental Slope Habitats and Benthic Ecology*, *Field Experiments of Deepwater Subsea Oil Spills*, and *A Joint Federal/Industry Cooperative Studying Environmental Impacts of Synthetic Drilling Muds from Cuttings Discharged into Deep Waters*. Future studies will likely focus on the physical oceanography of the slope and rise, the biotechnological potential of platform-associated natural resources, and the socioeconomics of deepwater development.

Recent newspaper articles have discussed the potential of offshore discharges of mercury to be taken up by fish and other commercial species. A small amount of mercury is present in barite, which is used in drilling muds, and is limited to less than one part per million by EPA water quality discharge regulations. MMS has sponsored research in this area, most notably the so-called GOOMEX study (Gulf of Mexico Offshore Operations Monitoring Experiment), which 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 accepted that the major source of mercury in the ocean is from atmospheric deposition, we have asked our independent OCS Advisory Board Scientific Committee to review the literature on this issue and advise us of further study, if needed.

MMS also has an active Technical Assessment and Research program called TA&R. The TA&R Program, a research element encompassed by the MMS regulatory program, supports research associated with operational safety and pollution prevention, as well as oil spill response and cleanup capabilities. TA&R was established in the 1970's to ensure that industry operations on the OCS incorporated the use of the best available and safest technologies subsequently required through the 1978 OCSLA amendments. The TA&R Program comprises two functional research activities: Operational Safety and Engineering Research and Oil Spill Research.

The TA&R Program operates through contracts with universities, private firms, and government laboratories to assess safety-related technologies and to perform necessary applied research. Because of the overlap of issues and challenges and to make the most efficient use of its money,

MMS jointly funds projects with industry, other Federal and States agencies, and international regulatory organizations.

### ***Proposed Atlantic Pipelines***

One of the new issues MMS faces is the use of the OCS for pipelines that do not involve production from the OCS but only transport through the OCS.

Blue Atlantic Pipeline - In November 2001, regional representatives met with consultants for El Paso Corporation to discuss preliminary plans for a 750-mile gas offshore pipeline from Sable Island, Canada, to New York City. The pipeline will be a 36-inch pipeline with a design capacity of 1 billion cubic feet per day. At this time, the Federal Energy Regulatory Council (FERC) is expected to be the lead agency for this project, with the MMS as a cooperating agency in the preparation of an EIS.

Ocean Express Pipeline - AES Ocean Express LLC Pipeline Projects recently submitted an application to the MMS for the construction of its 70-mile, 24-inch "Ocean Express" natural gas pipeline between the man-made island of Ocean Cay (Bimini) and Port Everglades, Florida. The pipeline would transport up to 800 MMcfd of natural gas. A two tank, 2-million barrel LNG regassification and storage facility will be constructed on Ocean Cay. The MMS and FERC will analyze the impacts of the proposed activities starting at the U.S. EEZ and westward into Florida.

## **OBSERVATIONS**

I'd like to offer the Commission several observations on ocean policy.

### ***Regulatory Structure***

Any revision of ocean governance must include a regulatory structure to govern the actions of those who use ocean resources. Any reorganization must provide clear authority to ensure timely regulatory actions. In managing federal OCS oil and gas resources, this regulatory structure must have clear lines of authority to make decisions. MMS makes literally hundreds of regulatory decisions every day that strongly affect the timely production of oil and gas resources.

### ***Use of the Ocean for Non-Energy Facilities***

The remoteness of deepwater development has triggered several non-routine issues. The MMS has discussed with various companies the issues and challenges associated with providing offshore support facilities for equipment and supplies, temporary housing of personnel, emergency landing facilities for aircraft, field hospitals, offloading terminals, central gathering facilities, shuttle tanker transport of produced hydrocarbons, waste management, and mariculture initiatives. New legal authority is needed to properly regulate these types of proposals. MMS has been exploring with other agencies the best approach to a statutory amendment.

One infrastructure proposal would build a floating liquefied natural gas (LNG) facility about 50 miles offshore in the Gulf of Mexico to receive LNG, reconvert it to gas, and transport the gas to market through existing pipelines. Other proposals that could benefit from a statutory amendment include creation of offshore support facilities for offshore oil and gas activity and harnessing ocean sources of energy.

### ***Single Agency Jurisdiction for Permitting OCS-Related Activities (“One-Stop Shopping”)***

As industries consider novel approaches to increase energy supply, they face a complex regulatory system. Federal permitting responsibilities are divided among several agencies that may have limited authority for only small portions of a project. Many novel approaches to the production or distribution of energy discovered on the federal OCS are not explicitly covered by the OCSLA or other existing legislation. The lack of clear authority by one agency could result in obstacles to innovative OCS energy initiatives and potentially impede orderly development of the OCS. The offshore energy industry needs clear regulatory requirements and clear agency responsibilities if they are to commit time and resources to these projects. Given primary responsibility, MMS would facilitate the development of existing resources and infrastructure to ensure safety of operations and protection of the environment, while working with other agencies that have authority under the OCSLA or existing statutes.

### ***Coastal Zone Consistency***

One area of complexity is that of coastal zone consistency. For OCS oil and gas development to be possible, two decision-making characteristics are essential:

*Predictability* – MMS and OCS operators must know which activities are covered, when consistency reviews will begin, and when decisions will be made.

*Clarity* – MMS and OCS operators require a straightforward review process with clear information requirements.

One issue of concern is the new conditional concurrence provisions. The CZMA requires States to either concur with or object to the consistency of activities. However, the new regulations permit the State a third option in the form of a conditional concurrence, which is not authorized by the CZMA. A conditional concurrence may constitute either a concurrence or objection, depending upon whether the MMS and the applicant accept the State’s conditions. This conditional concurrence provision is problematic.

The President’s National Energy Policy tasked the Secretaries of the Interior and Commerce to examine the current policy and legal provisions to determine if changes are needed to remove barriers to energy-related activities in the coastal zone and on the OCS. Currently, we are examining ways to address our concerns with the Federal consistency regulations.

## ***Governance***

The present laws and authorities offer many examples of successful governance.

- MMS already must obtain comments from States and the public in building any new 5-year leasing program. We also obtain the comments of each State as we proceed with each formal step in holding a lease sale. These provisions work well.
- We have negotiated sand and gravel extraction agreement with a number of States.
- We have MOU with the Coast Guard to streamline inspection efforts that overlap.
- Rigs to Reefs – Under our rigs-to-reefs movement, obsolete, nonproductive oil and gas platforms become artificial reefs. We work with Texas, Louisiana and Mississippi under their formal programs. Some 144 retired platforms have been used as artificial reefs.

## ***Science***

Several examples illustrate how interagency coordination promotes scientific research and combines scarce funds from numerous agencies. Three examples come to mind.

- MMS is working closely with agencies in Mexico to deploy deepwater moorings in the Mexican waters of the Yucatan channel and the Sigsbee Plan.
- MMS is working close with the Office of Naval Research and NMFS to gather important data about the endangered sperm whale found in a highly prospective deepwater area of the Gulf of Mexico.
- MMS is working on an extensive deepwater program of physical oceanography that involves coordinating with industry in order to understand the currents of the Sigsbee Escarpment – an ultra-deepwater area of the Gulf of Mexico.
- 

## **CONCLUSION**

In conclusion, I thank the Commission for their consideration of these complex issues. Clear and coordinated governance of the oceans provides an essential backdrop for orderly and timely development of ocean resources. Under the current structures, MMS has played a key role in ensuring the safe development of ocean resources while ensuring environmental protection. New technologies and new opportunities in deep water present new governing challenges. We look forward to working with the Commission as they consider these challenges.