

OCS Scientific Committee Meeting
May 22 – 24, 2007
Hilton St. Charles Avenue
New Orleans, Louisiana

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OFFICIAL PROCEEDINGS

Tuesday, May 22, 2007

Welcome and Introductions

The meeting began with a brief welcome from the Chair, Dr. Robert Diaz and Mr. James Cimato, Acting Chief of the Environmental Sciences Branch and Executive Secretary of the OCS SC.

MMS Director's Presentation and Discussion with the Committee ([expanded proceedings](#))

Presentation by Mr. Robert LaBelle

The OCS SC held its annual plenary meeting May 22 through 24, 2007, in New Orleans, Louisiana. As advisor to the Director, Minerals Management Service (MMS), the Committee appreciates the opportunity to have a dialogue with the Director on ongoing and future issues, policies, and activities of the Bureau. This exchange not only keeps the Committee apprised of MMS direction but also offers an opportunity for the Committee to provide direct advice and guidance on matters as they relate to the Environmental Studies Program.

Mr. LaBelle, Deputy Associate Director, Offshore Minerals Management, represented the Director and reported on and discussed with the Committee the status of the MMS and associated issues. This was followed by a series of informational presentations.

Gulf of Mexico OCS Region Update ([expanded proceedings](#))

Presentation by Mr. Joseph Christopher

Mr. Joseph Christopher, Regional Supervisor, Office of Leasing and Environment, Gulf of Mexico OCS Region, gave the Committee an update on the activities of the Gulf Region.

Alternate Energy Update ([expanded proceedings](#))

Presentation by Ms. Maureen Bornholdt

The growing cost of conventional energy resources and the need to diversify our Nation's energy portfolio has spurred an increased interest in renewable energy development on federal lands both onshore and offshore. Section 388 of the Energy Policy Act of 2005 (EPA) amended the OCS Lands Act, and granted the Department discretionary authority to grant leases, easements or rights-of-way for activities on the OCS that produce or support production, transportation, or transmission of energy from sources other than oil and gas. Simply put, the new authorities under the EPA gave the Department the ability to explore the future development of promising new ocean energy sources in the OCS such as wind, wave, ocean current, and solar energy. Additionally, the Department was given the authority to grant leases, easements, or rights-of-way for other OCS activities that make alternate use of existing OCS facilities. Ms. Maureen Bornholdt presented an update to the Committee on where MMS is with its OCS Alternative Energy and Alternate Use Program.

Subcommittee on Alternative and Renewable Energy (SCARE) ([expanded proceedings](#))

Presentation by Dr. Michael Fry

Dr. Michael Fry, Chair of the OCS SC SCARE, gave an update on alternative and renewable energy efforts within MMS and within the Subcommittee. The Subcommittee on was formed at the 2006 meeting, and members have individually received two documents for review and comment: 1) The MMS Draft Programmatic Environmental Impact Statement for Alternative Energy Development and Production and Alternate Use of Facilities on the Outer Continental Shelf; March 2007; and 2) a literature review prepared under contract entitled *Worldwide Synthesis and Analysis of Existing Information Regarding Environmental Effects of Alternative Energy Uses on the Outer Continental Shelf, Review Draft*, April 2007. Subcommittee members had reviewed and commented on each of these reports, and Dr. Fry presented an update to the full Committee in New Orleans. The Subcommittee had also consulted with the Environmental Studies Program (ESP) staff on a possible review of documents pertaining to the Cape Wind project offshore from Massachusetts, although details of the review have not been finalized.

Report from the last OCS Policy Committee Meeting [\(expanded proceedings\)](#)

Presentation by Dr. Victor Carrillo

Dr. Carrillo, Chair of the OCS Policy Committee, presented a summary of their last meeting, discussed how the Policy Committee operates, and welcomed interactions between the two OCS Committees.

Overview of the Gulf of Mexico Alliance [\(expanded proceedings\)](#)

Presentation by Dr. Byron Griffith

Dr. Byron Griffith, Director of the Environmental Protection Agency's Gulf of Mexico Program, gave a detailed overview of the Gulf of Mexico Program.

The Gulf of Mexico Alliance is a partnership, initiated in 2004, of the states of Alabama, Florida, Louisiana, Mississippi and Texas, intent on significantly increasing regional collaboration to enhance the ecological and economic health of the Gulf of Mexico. The Bush Administration's U.S. Ocean Action Plan recognizes the leadership that the five Gulf States have demonstrated in forming the Alliance and calls for the increased integration of resources, knowledge and expertise to address regional priorities.

The Alliance has identified five issues that are regionally significant and can be effectively addressed through increased collaboration at the local, state and federal levels. These priorities represent an initial focus for action through the Alliance:

- water quality for healthy beaches and shellfish beds,
- wetland and coastal conservation and restoration,
- environmental education,
- identification and characterization of Gulf habitats, and
- reductions in nutrient inputs to coastal ecosystems.

In addition, the Gulf of Mexico Alliance serves as a forum for effective binational regional collaboration with the six Mexican Gulf States – Tamaulipas, Veracruz, Tabasco, Campeche, Yucatan and Quintana Roo.

Efforts to workout collaborative programs in advance [\(expanded proceedings\)](#)

Presentation by Mr. James Cimato

The ESP managers discussed the challenges and ongoing efforts at the national and regional levels to build collaborative programs which support the MMS mission:

- Dr. Pat Roscigno, Gulf of Mexico OCS Region [\(expanded proceedings\)](#)
- Dr. Fred Piltz, Pacific OCS Region [\(expanded proceedings\)](#)
- Dr. Richard Prentki, Alaska OCS Region [\(expanded proceedings\)](#)

Some Highlights of the MMS Environmental Studies Program and Our Goal for the Next Day-and-Half

The MMS Headquarters ESP presentation highlighted accomplishments during the past year and outlined the overall goals for the annual ESP study plan review.

Summary of Alaska Subcommittee Activities [\(expanded proceedings\)](#)

Presentation by Dr. Michael Castellini

The Subcommittee attended the Chukchi Offshore Monitoring in Drilling Area Planning (COMIDA) Workshop and the North Aleutian Basin (NAB) Planning Meeting in November 2006. The purpose of the COMIDA workshop was to discuss and identify specific needs for monitoring of environmental effects of OCS Exploration and Development in the Chukchi Sea. The NAB planning meeting brought together scientific, agency, user, and public members to describe the major issues relative to possible lease sales in the NAB.

Dr. Castellini, Associate Dean, School of Fisheries and Ocean Sciences, addressed the full Committee on the final products of both workshops and suggested recommendations from the Subcommittee.

Summary of Deepwater Subcommittee Activities [\(expanded proceedings\)](#)

Presentation by Dr. Joseph Smith

Deepwater Subcommittee members attended the 24th Information Transfer Meeting held in January 2007 in New Orleans. The Subcommittee held a follow-up discussion on the meeting presentations and prepared a brief report commenting on three aspects of the deepwater environmental studies program: 1) research on deepwater corals, 2) effects of deepwater oil and gas exploration on and development on the continental shelf, and 3) vessel resources for deepwater research. Dr. Smith, ExxonMobil Upstream Research Company, summarized the activities of the Deepwater Subcommittee.

Overview of the Coastal Marine Institute [\(expanded proceedings\)](#)

Presentation by Dr. Larry Rouse

The MMS Coastal Marine Institute (CMI) initiative was proposed in 1991 as an MMS-State partnership to strengthen relationships with coastal states where OCS oil and gas activities take place and to improve the information flow to the affected States and the public. It accomplishes this by using State institutions to conduct research on issues of concern to both the State and MMS. This research is focused on environmental and socioeconomic aspects of OCS oil and gas and marine mineral development activities. Through the CMI's, increasing numbers of students and faculty are engaging in OCS related research, developing new skills, and developing new information and approaches to solving management issues. Dr. Rouse, Director of Louisiana State University's Coastal Marine Institute (CMI), outlined the work done for MMS under the CMI program with presentations by scientists on two current projects. Dr. Rouse introduced Dr. David Dismukes who gave an [update on the Center for Energy Studies CMI Projects](#) [\(extended proceedings\)](#); Drs. Gregory Stone [\(expanded proceedings\)](#) and Richard Condrey [\(extended proceedings\)](#), who gave an update on the Environmental Investigation of Long-Term Use of Ship Shoal Sand Resources; Dr. Chunyan Li who gave a presentation on [characterizations of the deep water flows under hurricane and non-hurricane conditions using oil platform ADCPs](#) [\(expanded proceedings\)](#); and Dr. Mark Benfield, who gave a brief presentation on ecological relationships between platforms and pelagic fishes [\(extended proceedings\)](#).

Proposed Final Program Outer Continental Shelf Oil and Gas Leasing Program 2007-2012 [\(expanded proceedings\)](#)

Presentation by Mr. Joseph Christopher

Mr. Christopher described the recently released 5-Year Outer Continental Shelf Oil and Gas Leasing Program, which will guide domestic energy leasing on the OCS from 2007 to 2012. The program proposes 21 lease sales in 8 planning areas. Twelve sales are slated for the Gulf of Mexico, 8 off of Alaska and, at the request of the Commonwealth of Virginia, one in the Mid-Atlantic Planning Area, about 50 miles off the coast of southern Virginia.

The Offshore Imperative, Shell Oil's Search for Petroleum in Postwar America [\(expanded proceedings\)](#)

Presentation by Dr. Tyler Priest

The day finished with a presentation by Dr. Priest, a Committee member and author of *The Offshore Imperative, Shell Oil's Search for Petroleum in Postwar America*. As the discovery and production of onshore oil in the United States faced an uncertain future after the Second World War, the offshore frontier in the Gulf of Mexico beckoned. Shell Oil Company pioneered many of the early moves into the Gulf, and during the next 50 years the company led the industry every step of the way into deeper water. Dr. Priest's study for the first time tells the modern history of Shell Oil. Drawing on extensive interviews with Shell retirees and many other sources, Dr. Priest relates how the imagination, talent, and hard work of personnel at all levels shaped the evolution of the company and developed its offshore capabilities. Shell Oil's story is unique, but it also illuminates the contemporary history of the petroleum industry. This study provides essential historical context for understanding strategic decision-making, scientific research, management of technology, and corporate organization and culture within modern oil companies.

Wednesday, May 23, 2007

This day was spent reviewing regional draft Studies Development Plans. Following a brief charge from the Chair to the Discipline Breakout Groups, the groups went into their sessions (Ecology/Biology, Physical Oceanography, and Social Sciences) to consider proposed regional priorities and information needs. Each Discipline Breakout Group met with staff members from each MMS OCS Region and Headquarters. In each breakout session, a Committee member was designated as a discussion leader and an MMS staff member was assigned to take notes. The Regional MMS Studies Chiefs and staff members were asked to identify, justify, and discuss priorities for future environmental studies.

Thursday, May 24, 2007

Reports from each of the Discipline Breakout Group were presented in plenary session:

- [Biology/Ecology Discipline Breakout Group \(expanded proceedings\)](#)
- [Physical Science Discipline Breakout Group \(expanded proceedings\)](#)
- [Socioeconomic Discipline Breakout Group \(expanded proceedings\)](#)

Peer-Review Update ([expanded proceedings](#))

Presentation by Ms. Elizabeth Burkhard

In December of 2005, the Office of Management and Budget issued a bulletin that established formal government-wide standards for conducting peer review of influential scientific information. MMS takes peer review very seriously and applies it to critical projects right from the beginning. Members of the Committee are regularly involved in the peer review process. Ms. Burkhard's report covered the draft Departmental guidelines, the MMS team to develop identifying criteria for influential information, and current projects underway.

Committee Business ([expanded proceedings](#))

The Committee developed the following acknowledgments and recommendations for the Director of the MMS:

- The Committee unanimously expressed its overall high regard for the personnel and programs of MMS Headquarters and the MMS OCS Regions. They continue to appreciate the materials provided to them before the meeting, including the clear and concise responses to the recommendations made the previous year.
- The Committee commended MMS for significant progress on international work with Mexico. This cooperation strengthens ESP studies and increases the visibility of MMS contributions and their science value.
- The high level of communication within MMS, particularly at the regional level, has led to solid cooperation and information flow. The Regions are to be commended in their continuing cooperative efforts.
- The Committee supports the effort MMS has spent on keeping its Internet site current and informative. This has positive results as the Internet is a critical portal for communicating with scientists, the public, and policy makers.
- The Gulf of Mexico Region deserves special recognition for the work its dedicated staff put in to recover so quickly after the 2005 hurricane season and maintain its high level of activity.
- Considering the prominence of social and economic issues related to all forms of energy production, the OCS SC could use more expertise in the field of economics.

As a result of this year's deliberations, the following recommendations emerged:

Data availability and archiving. Continue work to make MMS data available via MMS web sites and links to data storage systems (e.g. National Oceanographic Data Center). This will require continual effort and innovation as the magnitude of data increases. However, it is also of great importance to allow integrated research across disciplines as ecosystem modeling and climate change become critical areas of investigation.

Collaborative funding. Support for continued progress and success in collaborative funding across agencies (e.g. the National Oceanographic Partnership Program). It was also suggested that methods for match funding and cross funding with Agency-Industry programs be expanded. Explore innovative pathways for industry to contribute to research efforts.

Rapid response to alternative energy research needs. Research in alternative energy is a nascent field and is driven by rapidly changing business opportunities and economics. The MMS research program has evolved to work best with oil and gas, which is a mature industry that does not move as quickly and does not have as many smaller entities trying to break into the area of energy production. The MMS research program needs a rapid response component to research concepts and permits in alternative energy in order to keep up with this field.

Ecosystem-based research and enhanced interactions between MMS Regions. The MMS should continue to support and enhance ecosystem-based research approaches in order to better understand scientific issues in their geographical regions. Regions are moving in this direction and these needs to be supported, reinforced, and rewarded. It is important that MMS regional programs increase interactions with one another to enhance transferable research lessons, findings, and data.

Re-establish sand and gravel research program. The Committee was concerned that while the regulatory aspects of permitting for sand and gravel continue, research oversight has been significantly reduced. Consequently, there is minimal cohesive and external review oversight of the environmental impacts of sand and gravel activities. This program should be returned to MMS ESP with adequate funding for its mission.

There is growing concern about the relationships of OCS activities and wetland submergence in the Gulf of Mexico Region. The Committee requests a focused presentation on this issue at its spring 2008 meeting. If this is an emerging issue that MMS will need to consider, a presentation will be important for that discussion.

Finally, Chair Diaz expressed the Committee's appreciation regarding MMS's support and use of OCS SC Subcommittees.

The meeting was adjourned at 12:00 noon.

I certify that the above minutes are an accurate caption of the May 22-24, 2007, OCS Scientific Committee proceedings. The minutes may be released to OCS SC members and made available for public inspection.



**Dr. Robert J Diaz
Chair, OCS Scientific Committee
Minerals Management Service**

ATTENDEES

OCS Scientific Committee Members

Dr. Ralph Browning Brown, Brigham Young University
Dr. Michael Castellini, University of Alaska Fairbanks
Dr. James Coleman, Louisiana State University
Dr. Robert Diaz, Virginia Institute of Marine Science
Dr. D. Michael Fry, American Bird Conservatory
Dr. Michael P. Kosro, Oregon State University
Dr. Tyler Priest, University of Houston
Dr. Michael Rex, University of Massachusetts
Dr. Peter Paul Schweitzer, University of Alaska Fairbanks
Dr. Joseph Smith, ExxonMobil Upstream Research
Dr. John Trefry, Florida Institute of Technology

Minerals Management Service

Dr. Tom Ahlfeld, Environmental Sciences Branch
Mr. David Ball, Gulf of Mexico OCS Region
Ms. Carolyn Beamer, Offshore Minerals Management
Mr. Richard Bennett, Gulf of Mexico OCS Region
Mr. Greg Boland, Environmental Sciences Section, Gulf of Mexico OCS Region
Ms. Maureen Bornholdt, International Activities and Marine Minerals
Ms. Donna Bourg, Gulf of Mexico OCS Region
Ms. Elizabeth Burkhard, Environmental Sciences Branch
Ms. Terrie Callahan, Procurement Division
Mr. Robert Cameron, Gulf of Mexico OCS Region
Mr. Dennis Chew, Gulf of Mexico OCS Region
Mr. Joe Christopher, Gulf of Mexico OCS Region
Mr. James Cimato, Environmental Sciences Branch
Ms. Phyllis Clark, Environmental Sciences Branch
Dr. Cleve Cowles, Alaska OCS Region
Dr. Carole Current, Gulf of Mexico OCS Region
Ms. Melanie Damour, Gulf of Mexico OCS Region
Ms. Holli Ensz, Gulf of Mexico OCS Region
Dr. Deborah Epperson, Gulf of Mexico OCS Region
Mr. Gary Goeke, Gulf of Mexico OCS Region
Mr. Greg Gould, Environmental Division
Mr. Larry Hartzog, Gulf of Mexico OCS Region
Ms. Mary Elaine Helix, Environmental Evaluation, Pacific OCS Region
Mr. Tim Holder, Gulf of Mexico OCS Region
Dr. Chester Huang, Gulf of Mexico OCS Region
Ms. Cheri Hunter, Offshore Minerals Management
Dr. Jack Irion, Gulf of Mexico OCS Region
Ms. Bonnie Johnson, Gulf of Mexico OCS Region
Mr. Robert LaBelle, Offshore Minerals Management
Dr. Ron Lai, Environmental Sciences Branch
Ms. Connie Landry, Gulf of Mexico OCS region
Mr. Herb Leedy, Gulf of Mexico OCS Region
Dr. Alexis Lugo-Fernandez, Environmental Sciences Section, Gulf of Mexico OCS Region
Dr. Asha Luthra, Gulf of Mexico OCS Region
Mr. Dave Moran, Gulf of Mexico OCS Region
Dr. Margaret Metcalf, Gulf of Mexico OCS Region
Dr. Charles Monnett, Environmental Studies Section, Alaska OCS Region

Ms. Liz Peuler, Gulf of Mexico OCS Region
Dr. Fred Piltz, Environmental Evaluation Pacific OCS Region
Dr. Dick Prentki, Environmental Studies Section, Alaska OCS Region
Ms. Carol Roden, Gulf of Mexico OCS Region
Dr. Pat Roscigno, Environmental Sciences Section, Gulf of Mexico OCS Region
Ms. Celest Rueffert, Procurement Division
Mr. James Sinclair, Gulf of Mexico OCS Region
Ms. Kristen Strellec, Gulf of Mexico OCS Region
Ms. Debra Vigil, Gulf of Mexico OCS Region
Ms. Lynnette Vesco, Environmental Evaluation, Pacific OCS Region
Ms. Barbara Wallace, Environmental Sciences Branch
Mr. Will Waske, International Activities and Marine Minerals
Ms. Kate Wedemeyer, Alaska OCS Region
Dr. Dee Williams, Alaska OCS Region

Invitees

Dr. Mark Benfield, University of Louisiana
Mr. Victor Carrillo, OCS Policy Committee Chair
Dr. Richard Condrey, University of Louisiana
Dr. David Dismukes, University of Louisiana
Dr. Byron Griffith, Environmental Protection Agency
Dr. Chunyan Li, University of Louisiana
Dr. Larry Rouse, University of Louisiana
Dr. Gregory Stone, University of Louisiana

Others

Ms. Hope Herron
Mr. Joe Cancienne
Mr. Paul Stang

**Minerals Management Service (MMS)
Outer Continental Shelf (OCS)
OCS Scientific Committee (SC)
Meeting Agenda**

MEETING DATES: May 22 - 24, 2007
LOCATION: Hilton St. Charles Avenue,
New Orleans, LA

Tuesday, May 22

- | | | |
|-------------------------|--|--|
| 8:00 a.m. | Welcome and Introductions | Dr. Robert Diaz, Chair and
Mr. James Cimato, Senior Program Analyst,
MMS |
| 8:20 a.m. | MMS Director's Welcome, Presentation, and
Discussion | Mr. Robert LaBelle , Deputy Associate Director
for Offshore Minerals Management, MMS |
| 8:45 a.m. | Gulf of Mexico OCS Region Update | Mr. Lars Herbst , Acting Regional Director, Gulf
Of Mexico Region, MMS |
| 9:30 a.m. | Alternate Energy Update

Subcommittee on Alternative and Renewable Energy
(SCARE) | Ms. Maureen Bornholdt , Program Manager for
Renewable Energy/Alternative Use Program,
MMS
Dr. Michael Fry , Chair of SCARE and Committee
Member |
| 10:15 a.m. – 10:45 a.m. | | Break |
| 10:45 a.m. | Report from the last OCS Policy Committee Meeting | Dr. Victor G. Carrillo , Chair, OCS Policy
Committee |
| 11:00 a.m. | Overview of the Gulf of Mexico Alliance | Dr. Byron Griffith , Director, Environmental
Protection Agency, Gulf of Mexico Program |
| 11:30 a.m. | Efforts to workout collaborative programs in advance | Mr. James Cimato |
| 12:00 noon – 1:30 p.m. | | Lunch |
| 1:30 p.m. | Some Highlights of the MMS <i>Environmental Studies
Program</i> and Our Goal for the Next Day-and-Half | Mr. James Cimato |
| 1:45 p.m. | Summary of Alaska Subcommittee Activities
Summary of Deepwater Subcommittee Activities | Dr. Michael Castellini , Chair, AK Subcommittee
Dr. Joe Smith , Chair, Deepwater Subcommittee |
| 2:15 p.m. | MMS/LSU Coastal Marine Institute Update | Dr. Larry Rouse , Director, Coastal Marine
Science, Louisiana State University
Dr. David Dismukes
Dr. Gregory Stone
Dr. Richard Condrey
Dr. Chunyan Li
Dr. Mark Benfield |
| 3:00 p.m. – 3:15 p.m. | | Break |

3:15 p.m.	MMS/LSU Coastal Marine Institute Update	Dr. Larry Rouse
4:00 p.m.	Proposed Final Program Outer Continental Shelf Oil and Gas Leasing Program 2007-2012	Ms. Renee Orr, Chief, Leasing Division, MMS
4:30 p.m.	The Offshore Imperative, Shell Oil's Search for Petroleum in Postwar America	Dr. Tyler Priest, Committee Member
6:00 p.m.	Recess	

Minerals Management Service (MMS) Outer Continental Shelf (OCS) Scientific Committee (SC) Meeting Agenda

Wednesday, May 23, 2007

7:50 a.m. – 8:00 a.m. Charge to the Discipline Subcommittees Dr. Robert Diaz, Chair

This day was spent reviewing regional draft Studies Development Plans. Following a brief charge from the Chair to the Discipline Breakout Groups, the groups went into their sessions (Ecology/Biology, Physical Oceanography, and Social Sciences) to consider proposed regional priorities and information needs. Each Discipline Breakout Group met with staff members from each MMS OCS Region and Headquarters. In each breakout session, a Committee member was designated as a discussion leader and an MMS staff member was assigned to take notes. The Regional MMS Studies Chiefs and staff members were asked to identify, justify, and discuss priorities for future environmental studies. Sessions include sand and gravel and renewable energy study profiles.

Physical Sciences, Biology, and Socioeconomic Disciplines meet separately to discuss national and regional studies plans.

	Biology/Ecology and Interdisciplinary	Physical Sciences	Social Sciences
8:00 a.m. – 9:30 a.m.	Pacific	OPEN ROOM	Gulf of Mexico
9:30 a.m. – 10:00 a.m. BREAK			
10:00 a.m. – 12:00 p.m.	Alaska	Gulf of Mexico	Alaska
12:00 p.m. – 1:30 p.m. LUNCH			
1:30 p.m. – 3:30 p.m.	Gulf of Mexico	Alaska	Gulf of Mexico & Alaska
3:30 p.m. – 3:45 p.m. BREAK			
3:45 p.m. – 5:30 p.m.	Biology/Ecology Chairs and MMS Recorder Finalize Recommendations	Physical Sciences Chairs and MMS Recorder Finalize Recommendations	Social Sciences Chairs and MMS Recorder Finalize Recommendations

**Minerals Management Service (MMS)
Outer Continental Shelf (OCS)
Scientific Committee (SC)
Meeting Agenda**

Thursday, May 24, 2007

- | | | |
|------------|---|---|
| 8:00 a.m. | Plenary Session
Opening Comments | Dr. Robert Diaz, Chair |
| 8:05 a.m. | Peer-Review Update | Ms. Elizabeth Burkhard ,
Marine Biologist, MMS |
| 8:20 a.m. | Discipline Subcommittee Reports (20 minutes each) <ul style="list-style-type: none">• Biology• Physical Oceanography• Social Sciences• Open Discussion of Subcommittee Reports | |
| | 9:35 a.m. – 10:00 a.m. Break | |
| 10:00 a.m. | Open Discussion of Subcommittee Reports (continued) | |
| 10:45 a.m. | Public Comment | |
| 11:15 a.m. | Committee Business <ul style="list-style-type: none">• Items for Letter to the Director• Emerging Issues/Topics of Interest• Other Business• Dates and locations for the next meeting | |
| 12:00 noon | Adjourn | |

Expanded Proceedings

May 22, 2007

Welcome and Instructions

Dr. Robert Diaz, OCS SC Chair, called the meeting to order and welcomed everyone.

MMS Director's Presentation and Discussion with the Committee

Mr. Robert LaBelle, Deputy Director for Offshore Minerals Management (OMM), represented the Director, Ms. Johnnie Burton, and reported to the Committee the status of the Mineral Management Service's (MMS) oversight and associated issues.

Mr. LaBelle stated that the work and accomplishments of the OCS SC are critical to the success of the Offshore Environmental Program and to MMS. He announced that the Director has decided to retire after 5 years of dedicated service and return to her home state of Wyoming. She wanted to thank the OCS SC for its service and for helping to meet the Nation's need for offshore energy. Over her tenure, she always held the Committee and its members in the highest regard and ensured that good science played a key role in policy decisions. He also announced that Mr. Chris Oynes, formerly Director of the Gulf of Mexico OCS Region, is now the Associate Director for OMM.

He told the Committee that Dr. James Kendall, Chief of the Environmental Sciences Branch and MMS Chief Scientist, has been accepted in the Department of the Interior's (DOI) Senior Executive Service training program which is quite an accomplishment with stiff competition across the Department. Since Dr. Kendall will be away from his normal duties during this training program, Mr. James Cimato will be acting Executive Secretary for the OCS SC for the next 18 months.

He announced that MMS is celebrating its 25th anniversary and presented a pin to each Committee member and MMS staff who was in attendance. The MMS was established in 1982 and since that time has:

- regulated the production of 11 billion barrels (bbls) of oil and 116 trillion cubic feet (tcf) of natural gas,
- collected and disbursed about \$165 billion, and
- collected the great amounts of environmental and socioeconomic information needed to safely conduct offshore oil and gas exploration, development, production, and decommissioning.

With the devastation caused by Hurricanes Katrina and Rita during the summer of 2005, he wanted to applaud the Gulf of Mexico OCS Region's employees for their resiliency and perseverance in the face of great personal sacrifice. Through hard work and dedication, they were able to meet the demanding requirements of the leasing schedule as well as management of all the OCS exploration, development, and production activities in the Gulf of Mexico. He commented that one of the major challenges to OMM is meeting the requirements of the new 5-year oil and gas leasing schedule for 2007-2012. On April 30, the DOI announced a 5-year plan to open 48 million acres of offshore land to oil and gas exploration. The program proposes 21 lease sales in eight planning areas, including 12 in the Gulf of Mexico and eight off Alaska. It also includes a triangle containing three million acres 50 miles off the Virginia coast which are still subject to moratoria. Virginia's state legislature and its governor support the offshore exploration of natural gas as a way to produce more jobs and a new source of revenue to support public schools.

He continued that in the announcement of the leasing plan, DOI Secretary, Mr. Dick Kempthorne explained that the program could produce 10 billion bbls of oil and 45 tcf of natural gas over 40 years, generating almost \$170 billion in net benefits for the Nation. The plan is expected to become final in July following a 60-day review by the President and Congress.

The Environmental Studies Program (ESP) has begun the process of collecting information needed to proceed with the sales in an environmentally sound manner. Several members of the Committee had participated in workshops held last November and December in Anchorage, Alaska, which were conducted to summarize available information and solicit recommendations to fill major environmental and socioeconomic data gaps in the Chukchi and North Aleutian Basin (NAB) Planning Areas.

During these workshops, it became clear that some of the needed studies required a “jump start” to allow information to be collected and made available in a timely manner. For this reason, the development of several studies was put on a fast track with current fiscal year (FY) funding.

He mentioned another major environmental challenge for MMS which is the development of a national program for alternative energy and alternate use of the OCS as mandated in the Energy Policy Act (EPA) of 2005. While drafting the proposed regulation, it was learned that interest is already being shown by coastal states, offshore renewable industry sources, and the investment community. He asked for the Committee’s help to meet the environmental concerns of this new program as MMS expands the current focus of environmental studies to support decision making beyond the oil and gas program.

The deepwater Gulf of Mexico continues to be a major focus of industry interest for offshore oil and gas development. He said that at this time, seven of the Nation’s top 20 oil fields are in OCS deepwater and over 100 deepwater discoveries have been made.

He highlighted two deepwater studies that have received special recognition within the DOI as well as by the broader ocean research community:

- 1) *The Deep Gulf Habitats Project: Investigations of Chemosynthetic Communities on the Lower Continental Slope of the Gulf of Mexico*. Also known as “Chemo III”, this an ongoing partnership between MMS, the U.S. Geological Survey (USGS), and the National Oceanographic Atmospheric Administration’s (NOAA) Office of Ocean Exploration. It is providing ground breaking exploration and science discoveries on deepwater chemosynthetic communities and coral habitats in the Gulf in water depths ranging from 4,000 to 9,000 feet. Earlier this month, in recognition of the outstanding interagency cooperation, the Secretary of the Interior recognized this multi-million dollar project with the DOI Cooperative Conservation Award.
- 2) *Archaeological and Biological Analysis of World War II Shipwrecks in the Gulf of Mexico: Artificial Reef Effect in Deep Water* also received the DOI Cooperative Conservation Award in 2006 and was recognized with the prestigious National Oceanographic Partnership Program’s (NOPP) Interagency Excellence in Partnering Award. In addition to the critical archaeological information produced by this study, it also provides important data on the deepwater artificial reef effects of shipwrecks as evidenced by the unexpected large growths of the coral *Lophelia* observed on the Gulf Penn after 60 years after its sinking.

He mentioned that several other deepwater studies of equal importance to MMS decision making has also been undertaken. The recently completed *Characterization of Northern Gulf of Mexico Deepwater Hard Bottom Communities with Emphasis on Lophelia Coral* is the first comprehensive study of the distribution of *Lophelia pertusa*, its biology, and community ecology in the Gulf of Mexico. Another nearly completed project of the Gulf’s deepwater program, the *Northern Gulf of Mexico Continental Slope Habitats and Benthic Ecology Study*, characterized the soft bottom habitat of the continental slope to the deepest waters of the Gulf, about 3,800 meters. Studying this deepest zone of the Gulf was accomplished through the cooperation of 10 different institutions in three countries and included joint efforts with Mexico and participation of Mexican scientists at sea with the MMS study team.

He said that these few studies demonstrated how results of these deepwater projects are used by MMS in its adaptive management approach to provide appropriate protective measures to the deepwater communities. Two Notice to Lessees (NTL), the *Chemosynthetic Communities NTL* and the *Remotely Operated Vehicle Surveys in Deepwater NTL*, have been developed and updated in response to findings of these studies.

He concluded by saying that he looks forward to the OCS SC’s participation in the review of studies that have been nominated for future funding by the MMS ESP, thanked the members for serving on the Committee, and for helping MMS to achieve its environmental goals.

Open Discussion

There were no questions for Mr. LaBelle.

Gulf of Mexico OCS Region Update

Mr. Lars Herbst was unable to attend the meeting; therefore, Mr. Joe Christopher presented the update for the Gulf of Mexico OCS Region.

He touched upon the [EPAct of 2005](#), the [Gulf of Mexico's Energy Security Act of 2006](#), the current status of the Gulf of Mexico OCS, and what is being done to prepare for the 2007 hurricane season (<http://www.boemre.gov/PDFs/Preparations2007HurricaneSeasonBackground.pdf>).

Three key components of the EPAct affected the MMS:

- alternative energy and alternative use,
- the establishment of the Coastal Impact Assistance Program (CIAP) and,
- an automated royalty credit system.

He explained that Congress has set aside a billion dollars for the CIAP which will be disbursed to the States affected by OCS activities with the first disbursement taking place in the fall and that allocations have been announced for each State. These funds are authorized for five purposes:

- projects and activities for the conservation, protection, and restoration of the coastal areas including wetlands,
- mitigation of damage to fish, wildlife, or natural resources,
- planning assistance and administration of costs,
- implementation of a federally approved marine coastal or comprehensive conservation management plan, and
- mitigation of the impact of OCS activities through funding of offshore infrastructure projects and public service needs.

Since it is the lead agency for CIAP, the MMS has the responsibility to confirm that this money is being used for these purposes.

The Gulf of Mexico Energy Security Act was enacted in December of last year which added 8.5 million acres for leasing consideration, added acreage to the Central Sale which is scheduled for September of this year, and added an Eastern Gulf Sale which is scheduled for 2008 in conjunction with the Central Gulf Sale in March of 2008. It implemented a removal of Presidential withdrawal, removed the Congressional moratorium, and subsequently, the President removed his withdrawal of the area south of 181. It implemented revenue sharing to the coastal States and created a situation where companies can receive bonus credits in exchange for existing leases they own in the Eastern Gulf and use those credits for other OCS sales.

Mr. Christopher presented a power point map which displayed the affected areas. He said that there is a military mission line which prohibits activities east of that line. He also pointed out on the map the original 181 area that had been produced as an Environmental Impact Statement (EIS) 5-6 years ago and stated that the area will be leased in the future. West of the military mission line and to the east of the boundary between the Central and the Eastern planning areas is Sale 224, which is over 100 miles offshore Florida, will be held in March 2008 in conjunction with the central planning area sale scheduled then.

Another power point map showed the area referred to as south of 181 which the MMS will be required to do an EIS.

He stated that Gulf deepwater development is in its 12th year of major expansion. There were 107 projects in production at the start of 2006; seven new projects came online in 2006, producing oil and gas; and three very large projects will start production in 2007-2008.

Independence Hub is a new major production in 2007-2008 that is almost exclusively gas with a billion cubic feet per day production. Thunder Horse is another new production but, due to technical problems, is not yet online. It is estimated that 250,000 bbls of oil per day will go online. The Atlantis should come online at 200,000 bbls of oil per day.

He said that the Chinook is going to be the first Floating Production, Storage, Offloading project in the Gulf and that its deep water operations plan has been approved.

He announced that there will be 700 leases in the Lower Tertiary available in the FY 2007-2008 Western and Central Planning area sales.

He reported that, as of May 4, 2007, there are 78 total drilling rigs; 107 working rigs; 36 drilling rigs in water depths greater than 1,000 feet; 34 drilling rigs in water depths greater than 1,500 feet; and nine drilling rigs in water depths greater than 5,000 feet.

In general, there are 4,000 structures offshore, 33,000 miles of pipeline, 40,000 wells drilled, and 120 deepwater projects online. The deepest production is the Nakika, at 7,500 water depth, the Independence Hub is the deepest facility at 8,000 feet water depth, and the deepest drilled well is Toledo at about 10,000 feet water depth.

A number of changes are being made in advance of the upcoming hurricane season, including:

- 1) Air space between the water and the bottom of the deck has been increased for jack-up drilling operations.
- 2) The number of moorings on Mobile Offshore Drilling Units (MODU's) has been increased from 8 to 12.
- 3) Reporting requirements have been changed to allow for the availability of more real-time information.

Mr. Christopher stated that 2006 was a record-breaking year for new technology such as the High Integrity Pressure Protection System which is for subsea production facilities where operations are in extreme water depths with extreme pressures from the reservoirs. Subsea separation and boosting are other new technologies being used where there are subsea production facilities and there will be separation of a lot of the water at a subsea facility. Boosting refers to pumping up to the host facility.

He announced that there is a new NTL relating to currents that apply to MODU's and floating production facilities in water depths greater than 400 meters. Between 400 and a thousand meters, an Acoustic Doppler Current Profile (ADCP) had been used which points down from the surface or up from the bottom to register currents and provide remote sensing of currents in the water column.

Mr. Christopher described a study, *Archaeology and Biological Analysis of World War II Shipwrecks in the Gulf*, which was a collaborative effort between MMS and NOPP and has been enormously successful. It has won two awards, the Department of Cooperative Conservation Award and the NOPP's Excellence in Partnering Award.

Mr. Christopher described the Mardi Gras Shipwreck which is about a 200-year-old wreck and is going to be the deepest scientific archaeology exploration of a shipwreck. Texas A&M University is performing the work and MMS archaeologists are observing and participating in the activities which will be done using remotely operated vehicles (ROV). The artifacts that are recovered will go on display in the Louisiana State Museum, Cabildo at Jackson Square.

Another wreck was discovered nearby in the Mississippi Canyon leasing area during an ROV survey of a pipeline route and there was some thought that this may actually be associated with the Mardi Gras Shipwreck site.

The U-166, which is part of a World War II shipwreck, was discovered 3-4 years ago and the Coast Guard had thought it had sunk it off the Atchafalaya. The wreck was located off the mouth of the Mississippi River and a survey company working on a pipeline actually found it.

Another shipwreck recently discovered is the Green Lantern, so called because a green lantern was found on it. It is in 2,500 feet of water and is an unknown schooner from the 19th Century.

He described three new major production sites in 2007-2008:

- Independence Hub being operated by Anadarko,
- Thunder Horse being operated by BP, and
- Atlantis, also being operated by BP.

Open Discussion

Dr. Michael Fry asked if there was a major storm, how would a facility like Thunder Horse, which is expected to put out about 250,000 bbls of oil per day, be shut down. Mr. Christopher responded that all platforms are required to have subsea safety valves that can be shut down. These safety valves are located several hundred feet below the mud line and are very effective. Mr. Dennis Chew added that it is not just one well but multiple wells and said that he doesn't believe there is an issue to shutting them down.

Dr. Michael Castellini asked Mr. Christopher to explain the CIAP and categories that are being predicted, whether or not the environmental studies group has a role in any of those, and if there is potential for OCS SC review.

Mr. Christopher answered that there have been studies done such as those relating to Ship Shoal off of Louisiana. In terms of the CIAP, once the project is approved, the State submits a plan that includes every project that they think needs to be funded, and MMS does a review to make sure that the general description provided fits within the five categories. Later, the State will come into the Grant Applications for each of those projects or one project may have multiple grant applications and those will also be reviewed. Ultimately, MMS will be conducting on-site reviews of these projects to certify they are being done according to what had been submitted. To participate in this process, Mr. Greg Gould added, one would need to approach the State or other political subdivision since MMS does not have any role in selecting how and where the money is spent and that money would not necessarily have to be used on offshore activities.

Dr. Tyler Priest asked if the implementation of revenue sharing impact the States' under the Energy Security Act. Mr. Christopher said that it is his understanding that the States will immediately begin getting revenue sharing from the Sale of 224, the Eastern Sale, but it will be 2016 before they start sharing from all the rest of the activity in the Gulf.

Mr. Victor Carrillo said that much of the interest derived from the Lower Tertiary is the ultra deepwater and commented that it is in very close proximity to the boundary with Mexican waters. He asked what coordination is occurring between the U.S. and Mexico in terms of developing those resources. Mr. Christopher replied that there has been coordination.

Dr. Alexis Lugo-Fernandez added that MMS has been talking with Petroleos Mexicanos (PEMEX). PEMEX is involved in a large research program for the next 5 years and wants to be producing in deepwater by 2012. The MMS is negotiating an agreement between sharing technology and information with PEMEX as well as attempting to set up a coordination of research within the American and the Mexican waters. He added that PEMEX is going to be actively participating in the upcoming U.S./Mexico workshop that MMS is sponsoring in New Orleans on June 26 through 28, 2007.

Alternate Energy Update

Ms. Maureen Bornholdt, Program Manager, Alternative Energy/Alternate Use Program, stated that the quantity of domestic renewable energy produced on Federal lands is small in comparison to conventional resources. However, the growing cost of conventional energy resources and the need to diversify our energy portfolio has spurred an increased interest in renewable energy development on Federal lands both onshore and offshore.

Section 388 of the EPA Act of 2005 amended the OCS Lands Act (OCSLA) and granted the department discretionary authority to grant leases, easements, or rights-of-way for activities on the OCS that produce or support production, transportation, or transmission of energy from sources other than oil and gas. Simply put, the new authorities under EPA Act gave the department the ability to explore the future development of promising new ocean energy sources in the OCS such as wind, wave, ocean current, and solar energy. Additionally, the department was given the authority to grant leases, easements, or rights-of-way for other OCS activities that make alternate use of existing OCS facilities.

There are four tenets that MMS is building its program around:

- the need for meaningful dialogue with stakeholders,
- creating new regulatory processes,
- focus on regulatory role, and
- use sound science, engineering, and environmental protection principles.

Stakeholder meetings were conducted in Oregon, Massachusetts, New Jersey and New York to share experiences and relevant knowledge associated with regional planning and siting energy facilities. The five questions asked of the participants were:

- identify stakeholders,
- describe key issues and concerns,
- characterize energy needs and trends,
- describe current and future technology development, and
- identify State/local regulations.

Stakeholders' issues and concerns included:

- industry losing momentum while MMS develops its regulations,

- nexus with State and local ocean planning initiatives,
- baseline environmental data acquisition may be difficult as well as expensive, and
- technology testing or “non-grid” project will get caught up in complex permitting.

Stakeholders’ energy needs and trends. Increased interest into diversifying energy sources, including alternatives and renewables:

- anticipated Pacific coast RPS: California 33% by 2020; Oregon 25% by 2025; Washington 15% by 2020,
- possible energy shortfalls forecasted for the Northeast, and
- New Jersey and Delaware are involved with the Regional Greenhouse Gas Initiative that caps CO2 emissions.

Stakeholders’ State and local regulations:

- State ocean planning initiatives are underway,
- interface with State regulators and public utilities commissions could be challenging due to disparate information requirements and regulatory deadlines, and
- States are interested in partnering to identify appropriate site(s) for OCS-based test facilities and to collect baseline data.

Stakeholders’ present and future technology:

- several ongoing efforts that focus on developing deepwater (up to 150 feet) wind energy facilities,
- options for storing surplus generated energy are being developed,
- Northwest’s focus is on developing ocean wave energy technologies,
- Northeast’s focus on wind energy technologies, and
- increasing talk about OCS hydrogen.

She said that there are two provisions under Section 388 of the EPAct on which the MMS is focusing:

- production, transportation, or transmission of energy from sources other than oil and gas [Alternative Energy] and
- use of currently or previously OCSLA-authorized facilities for energy-related purposes or for other authorized marine-related purposes [Alternate Use].

One of the provisions within Section 388 that has set the parameters for MMS regulations is a competition requirement. This is a requirement that the Secretary shall issue a lease, an easement, or a right-of-way on a competitive basis unless there is a determination that competition doesn't exist.

Other key considerations in addition to competition are:

- safety,
- protection of the environment,
- coordination with affected State & local governments and Federal agencies,
- fair return for use of OCS lands, and
- equitable sharing of revenue with States.

Other major regulator elements are:

- lease issuance (competitive and noncompetitive coordination),
- lease administration (bonding and payments),
- project plan reviews (site assessment and construction and operations),
- conduct of approved plan activities (installation, production, environmental, and safety monitoring and inspections), and
- decommissioning.

Ms. Bornholdt added that all of these different phases will be subjected to compliance with the law.

To understand what broad implications could be to the environment, the MMS has published a draft programmatic EIS which looks at the generic interface between different technologies, ocean winds, ocean waves, and ocean currents with the marine and human environments. The draft programmatic EIS was published in March, public hearings have been completed, and the comment period on the programmatic EIS closed yesterday.

It is hoped that by the end of the summer, the final EIS will be issued, the proposed notice of rulemaking will be issued, and the comment period will commence.

Fall is the target date to issue a record of decision on the programmatic EIS, and in 2008, it is hoped that the final rules will be published in order to hold workshops to explain what has been done.

She continued that two existing wind farm projects, the Cape Wind Energy Project (<http://www.boemre.gov/offshore/RenewableEnergy/CapeWind.htm>) and the Long Island Offshore Wind Park are also being managed. Each of these projects is undergoing technical and engineering reviews as well as environmental review through an EIS; therefore, the MMS will not issue decisions until the Alternative Energy Program is in place. These two projects are exempt from competition per Section 388 which means there will be no competition as to where they will be located.

Ms. Bornholdt explained that the Cape Wind Project is located about five miles offshore in Massachusetts and is composed of about 130 turbines, 3.6 megawatt machines. With regard to the draft EIS and its schedule, the draft EIS is being evaluated which will consider a range of the following alternatives:

- no action,
- phased build-out,
- smaller configuration, and
- sites offshore Rhode Island, Massachusetts, and Maine are analyzed for comparative purposes.

The target date to file the draft EIS is summer 2007; hold a 60-day comment period, and hold public hearings in fall 2007.

The Long Island Offshore Wind Project is a much smaller proposal. It is about four miles off the south shore of Long Island, New York, with about 40 turbines. This particular draft EIS will also consider a range of alternatives:

- no action,
- one alternative site off of Long Island,
- one alternative site in deepwater, and
- one alternative site onshore.

The publishing of this draft EIS is unknown at this time because there is still information gathering on behalf of the Long Island Power Authority and Florida Power & Light, the two operators working with the MMS on that project.

The MMS has contracted with Research Planning, Inc., to conduct a 9-month study entitled *The Worldwide Synthesis and Analysis of Existing Information Regarding Environmental Effects on Alternative Energy Uses of the Outer Continental Shelf*.

This worldwide synthesis environmental impacts study will:

- examine potential impacts,
- examine data gaps, and
- provide a summary of existing literature.

It will also focus on:

- physical processes (tides, currents, waves),
- benthic and fish resources,
- flying animals (birds, bats, insects),
- marine mammals and sea turtles,
- aesthetics,
- space-use conflicts,
- greater availability of information on impacts from wind development (wave, tidal, current),
- studies of existing offshore wind parks are informative, but results may be difficult to transfer to U.S. settings,
- many studies use predictive assessments, and
- strong need for long-term monitoring to provide empirical data.

Ms. Bornholdt announced that the MMS is sponsoring a workshop on June 26-27, 2007, in Herndon, Virginia, to gather information from the summaries and the studies, and breakout into small groups to evaluate and identify specific data gaps and study needs by resource area. The MMS will gather the findings of the workshop and begin to design a study plan that will be turned over to the OCS SC for review and interface.

She introduced the Marine Mapping Initiative whose goal is to identify OCS locations of Federally-permitted activities, obstructions to navigation, submerged cultural resources, undersea cables, offshore aquaculture projects, and any area designated for the purpose of safety, national security, environmental protection, or conservation and management of living marine resources.

The repository of this data will be the Marine Cadastre which is an integrated submerged land information system consisting of legal, i.e. property ownership, physical and cultural information in a common reference framework. This endeavor is an ambitious, multi-year endeavor that requires joint planning, interaction, and commitment by Federal, State, local, and tribal entities working through public and private partnerships.

Ms. Bornholdt concluded her talk stating that this has really been an exciting opportunity to contemplate some of these other possible uses of our OCS resources, to broaden understanding of the interface between some of these technologies and the marine and human environment, to identify challenges that have not been addressed, and to address them with MMS's scientific studies program.

Open Discussion

Dr. Castellini mentioned that Ms. Bornholdt stated that she has very good feelings for socioeconomic aspects and asked her if it is a coincidence that the projects she described are beyond three miles offshore. He asked if anyone is thinking about State waters or is it because no one wants wave farms or wind parks to be seen. Ms. Bornholdt replied that there is an interest in placing these in State waters and rivers. The MMS has received proposals off the State of Oregon and one proposal off the State of California for State waters wave farms, so there seems to be entities that prefer them closer to the shore so some testing can be done. She added that, in regard to wind parks, there is interest off the Massachusetts coast. However, there are those individual impacts and the concern of "what am I going to see?" It is her opinion that big structures like wind parks will be farther offshore.

Dr. Castellini asked if she had a feeling for whether or not Company X is going to get a better deal from the State or a better deal from the MMS in terms of erecting these farms/parks inshore or offshore. Ms. Bornholdt responded that, right now, especially since there is no program, the State could provide a better deal. However, it is a mixed bag because what is heard from the State is concern about funding because it is a brand new project. She mentioned that Oregon is working together at the local level and with the State level to understand and be flexible about this new opportunity so that economically it can be a boom. On the other hand, there is also commercial fishing and recreation fishing off their shores which is very important.

Dr. Castellini said that, in referring to his notes from last year's meeting in Santa Barbara, California, during Ms. Bornholdt's presentation, she had said OCS rigs could be used for another purpose and he asked whether or not there has been consideration that someone will say, "we will build the rig under this circumstance; when it is no longer productive, I've got a great portable nuclear generator that I want to put on it". Ms. Bornholdt explained that MMS has the discretion to authorize alternate uses of OCS rigs when that use is not presently regulated by a Federal agency. If someone wanted to use an OCS rig as a nuclear facility, MMS would first need to determine whether the Federal Nuclear Regulatory Agency covers nuclear facilities on the OCS.

Dr. Fry said that he is interested in what the regulatory consensus will be especially between Federal agencies and relationships with the States. He said that he would think that all offshore wind farms, currents, and tidal facilities would be appropriately regulated by a Federal agency and wondered whether or not there are any plans on which agencies will be involved and how is the MMS going to coordinate with the States. Ms. Bornholdt referred to Section 388 which designates the Secretary of the Interior to be the lead permitting agency for alternative energy, renewable energy. With regard to Cape Wind, the Federal Aviation Administration, the Coast Guard, the Environmental Protection Agency (EPA), Fish and Wildlife Service (FWS), NOAA, just to name a few, whenever there is an activity or a proposal and there is a nexus for Federal regulatory compliance, the MMS will seek out and work with those Federal sister-agencies so that whatever environmental documents, whatever application comes in, they can also be use for their regulatory compliance. This coordination is also envisioned in Section 388 which requires the Secretary of the Interior to coordinate with all relevant Federal agencies. With regard to the States,

Dr. Rodney Cluck, our Project Manager, has been in constant contact with Massachusetts, with their Public Service Commission, with the Coastal Management Program, and with the Department of Environmental Protection in coordinating their processes with MMS's. The regulation encourages, but it cannot require, applicants to coordinate with the States before they come in with their application.

Dr. Fry said that there had been a discussion of a formal Memorandum of Understanding between the FWS and MMS and asked if that is going forward. Ms. Bornholdt replied that she is aware that the MMS is working with the FWS on a Memorandum of Agreement (MOA) associated with the Migratory Bird Treaty Act. She stressed that any kind of MOA would also have those provisions and will be comprised with regard to renewable energy.

Dr. Michael Rex brought up an issue that was subject to discussion during the last OCS SC meeting which was the complications of leasing-for-multiple-use that was in for review. He asked that since things like petroleum exploration, using wave energy, or wind parks may have different environmental impacts, would these be built for different purposes and whether or not the MMS has come to terms on how a particular piece of rental would be leased, potentially, for different use. Ms. Bornholdt stated that it is still a challenge; MMS is envisioning that when lease sales are held for renewables, it will either be for defined renewables or a combination of renewables. The lease contract that will be written would depend upon whom and for what. If it is for wind, it is for wind only. As an example, if a company has a renewable lease, they build a wind farm, they are in the middle of their lease term, and learn that there is an incredible wave opportunity coming along and they want to change the lease contract. This is where the competition element comes in. They have to compete for that wave. So, it would be competed under an alternate use subpart.

Regarding a potential new lease and how MMS might want to balance oil versus wind, Dr. Castellini asked what the MMS will do if BP decides to put wind on all of its existing rigs. Ms. Bornholdt answered that that is alternate use and it would be looked at. The regulations will have a provision to regulate that particular add-on. She explained that it also depends if the oil and gas structure is still operating or if it is at the decommissioning point because if it is still operating, MMS would need to take a look at it at this point in time under the 250-type regulations. If it is decommissioned, reference would be made to Section 388.

Dr. Diaz asked whether or not royalties and lease sales are structured enough to pay for the running of the program by MMS. Ms. Bornholdt answered that it is not because this is an emerging industry that is not well capitalized.

Dr. Diaz said that he would be concerned if this program did not receive sufficient funding and go the way of the Sand and Gravel Program which was terminated due to lack of funding.

Mr. Ken Shadderly, Shell, asked if the rule making will include offshore aquaculture. Ms. Bornholdt replied that there is no Federal offshore aquaculture law in place, so using existing OCS facilities could be done; however interfacing with the MMS would still be required to make sure that it is still safe for the oil and gas population.

Mr. Shadderly stated that the current rules require that the lease be cleared within 1 year after cessation; therefore, is it anticipated that will be relaxed and then there could be a transfer of liability to another organization or entity that could then conduct the alternate uses. Ms. Bornholdt responded that it gets confusing since these facilities are not owned by the Federal Government and yet we have to compete for the use; therefore, what is envisioned is prior to beginning the decommissioning process, anyone who would like to use the facility would need to approach Shell or whatever oil company, and then work with MMS to work out a lease. The liability would not be totally transferred - just the liability for that specific use. The oil company still would have to continue on with its liability obligation.

Subcommittee on Alternative and Renewable Energy (SCARE)

Dr. Fry explained that SCARE was formed at the 2006 meeting and other members include Drs. Mary Scranton, Eugene Shinn, Lynda Shapiro, and Richard Hildreth. The Subcommittee had been asked to review two documents and comment:

- 1) *The MMS Draft Programmatic Environmental Impact Statement for Alternative Energy Development and Production and Alternate Use of Facilities on the Outer Continental Shelf*; March 2007; and
- 2) A literature review prepared under contract entitled *Worldwide Synthesis and Analysis of Existing Information Regarding Environmental Effects of Alternative Energy Uses on the Outer Continental Shelf, Review Draft*, April 2007.

Subcommittee members had reviewed and commented on each of these reports, and presented an update to the Committee. The Subcommittee had also consulted with the ESP staff on a possible review of documents pertaining to the Cape Wind project offshore Massachusetts, although details of the review have not been finalized.

The Programmatic EIS is a framework of the program's issues, plans, and regulations. Dr. Fry mentioned that he feels there needs to be considerably more flesh on that framework to be able to know exactly how MMS will go about selecting which program to go forward with only an Environmental Assessment (EA) and which ones will need a full blown EIS.

The Worldwide Synthesis document brought up quite a few different kinds of issues. The review includes offshore wind, current, and wave technologies. During Ms. Bornholdt's presentation, she talked about tidal energy five miles offshore, three miles offshore. He commented that he doesn't understand how one can differentiate between current and tidal. Certainly, in State waters there is a real role for tidal energy, but further offshore, it will be the current energy. With the Worldwide Synthesis, a whole variety of technology is presented. He presented a power point of the Frankfurters of the Sea technology which are articulated booms that rock with the waves and presumably have gear turbines that produce electricity. He stated that there must be a lot of mooring cables and a lot of electrical cables that aren't seen that would really pose some environmental questions.

Current turbines will need some environmental assessment. With offshore wind, there are some projects already underway. He presented Horns Rev and Nysted which are large projects offshore Denmark. These turbines are about 110 meters high, almost 400 feet, and the rotor diameter is 80 meters. The turbines are about half a kilometer apart, 5,060 meters.

He stated that there were concerns as to construction noise and he presented a Power Point that illustrated possible affects on marine mammals. He said he believes the marine mammals are able to hear these noises from a long way away and would be likely to stay away. There are measurement circles for noise impacts, but these do not have distances for how far away marine mammals can hear noise or how close they are before they are affected physically.

He described Horns Rev Project and noted that when it was constructed, there were densities in marine mammals that were baseline in the different areas. During construction, the number of animals in the impact area decreased significantly. After the construction noise ended, the animals came back. During operations, there were increases in the number of porpoises, but whether this was an increase in the number fish because of exclusion of fishing vessels in that area, he did not know nor did he know whether or not the Danish government has done this kind of analysis, yet.

He confirmed that there are some effects on the birds, excluding some sea ducks and loons. Some species have returned after a few years, which others have not. How long it will take or whether the birds will become use to these structures is not known and whether there is an actual significant impact from changes in the course of birds that have to fly around objects.

He summarized by stating that a review of these documents is not trivial and believes the Subcommittee is very interested in continuing to work with the program to review these types of documents. He said he is looking forward to the workshop being held in Herndon June 24 – 25, where research planning is going to talk about strategic plans. One of the issues that have come up is storage technology and whether or not there would be technology to develop a hydrogen storage offshore in order not to have to connect to the grid. With this technology, things could be moved much further offshore. Is the U.S., in its Energy Policies, going to do this kind of research?

Open Discussion

Dr. Rex mentioned that he has not seen any documents about the implications of climate change for the site of these things. Dr. Fry said he, too, had heard very little mention of that, other than a very positive general feeling about wind and wave technology as a part of the replacement for fossil fuel burning. He believes the environmental community is very much in favor of wind energy and they just want to make sure that the environment does not suffer more immediate effects while contributing to bettering the situation of climate change.

Report from the last OCS Policy Committee Meeting

Mr. Victor Carrillo, the newly elected Chairman (replacing Nick Tew), is a commissioner for the Texas Railroad Commission – a statewide elected position in which he oversees the oil and gas industry, pipeline safety, and surface mining (coal). He is a geologist by education, with a Masters in Geology, and worked as a geophysicist for Amoco for several years prior earning his law degree.

He stated that one of the Committee's accomplishments was the election of new officers with Mr. Jim Carlton being elected Vice Chair and "Ram" Ramchandran as Parliamentarian.

He said that during the last Committee meeting, they had an excellent number of presentations and discussions, including a roundtable discussion of issues from the various regions. Director Burton and Mr. Oynes both addressed the Committee along with the Assistant Secretary of the DOI, Mr. Stephen Allred. Mr. Carrillo summarized some of Mr. Allred's presentation that emphasized the ongoing importance of oil and gas exploration and production. Mr. Allred expressed that there is no clear alternative to oil and gas until perhaps after 2030; however, for the foreseeable future, the short to midterm, there is not. He emphasized the importance of the new revenue-sharing bill and what is recognized as the Lower Tertiary Deep Water Trend in the Gulf of Mexico that is very significant and could be a major source of oil and gas for the U.S. These deepwater Gulf of Mexico projects are long-term projects, many taking 5-10 years to go full cycle and to actually begin production. He also emphasized that a strong program for offshore renewable energy needs to be developed.

Mr. Carrillo cited a paragraph from the 5-year leasing plan, "Domestic petroleum production continues to decline and imports are continuing to increase. While alternative sources are expected to contribute a growing portion of the Nation's domestic energy production, no new technology is forecast to make a paradigm shifting contribution to domestic energy production in the next 15 years. Crude oil and natural gas are expected to provide the lion's share of the Nation's energy for the foreseeable future. The OCS is one of the largest suppliers of crude oil for the U.S. and is the third largest supplier of natural gas after

Texas and Alaska. Without the huge increase of deep water oil and gas production in the Gulf of Mexico OCS since 1995, the recent decline in domestic production would have been twice as severe."

In summary, Mr. Carrillo said that the Nation's current and projected energy situation requires continued leasing, exploration, and development of OCS land in an environmentally sound manner. Regarding the Committee's report on the OCS Alternative Energy and Alternative Use Program, he reported that there is a lot of interest in alternative energy sources, particularly, wind.

He said that Texas is in a unique situation since its jurisdictional boundaries extend to roughly 10 miles out. Therefore, there is a lot more room to work with whether it is in regard to oil and gas leasing or wind leasing. Texas' Land Commissioner recently signed an agreement for the Nation's first and largest offshore lease for wind energy. It proposes a 150-megawatt, 50 turbine project about 6-9 miles from shore. There is also another project along the coast offshore where the Land Commissioner recently authorized the installation of an 80-foot meteorological tower off the Galveston coast to study wind characteristics for a future project expected to be 250 megawatts.

He explained that in his area of State jurisdiction, while Texas may coordinate with Federal offices, the specifics of leasing, etc., are with the State.

Reports were given on the ongoing efforts of sand projects and marine minerals. He said that the OCS Policy Committee's Hard Minerals Subcommittee is working on a resolution to try to remedy the Sand and Gravel Program's lack of funding. This is an issue of key importance to many states.

Finally, the Committee summarized some areas of future study and interest, including:

- Access issues. There are divergent opinions on the Committee, the trend being that would encourage further opening up of OCS areas for responsible exploration and production activity.
- Workforce and manpower issues are increasingly important.
- Sand and gravel issues. The Committee wants to continue working on that to try to find means to secure funding for this very important program.
- Alternative energy.

- Explore ways where the Committee's subcommittees can be a resource for individuals to better inform Congressmen and their staff about some of these important issues.
- Explore how the Committee can perhaps be part of the educational process regarding some of the consequences of not increasing the U.S.'s domestic natural gas supply. People need to be educated about the consequences of what might happen if this Nation does not take action fairly quickly on further developing domestic resources. The Committee believes it is a national energy security issue and may establish a subcommittee on education.

Open Discussion

Dr. James Coleman asked if funding for the Sand and Gravel program is completely eliminated or just reduced. Mr. Carrillo responded that he believes it is just reduced. Mr. LaBelle stated that is as accurate characterization of this right now and everything is being done to get more resources. Mr. Carrillo added that one of the topics the Committee discussed was exploring ways for the individual States to cooperate and work together on the studies portion in order to get more done without necessarily having additional funding.

Overview of the Gulf of Mexico Alliance

Mr. Bryon Griffith explained that the 2005 hurricane season shattered records and communities as 27 named storms and 13 hurricanes impacted America's coastal States - Florida, Alabama, Mississippi, Louisiana, and Texas. These events brought worldwide attention to the Gulf of Mexico region and underscored the economic impact the coast has on the rest of the Nation. These impacts demonstrated the need for a strong alliance between the Gulf States in order to strengthen the response to common challenges. Recognizing the Gulf of Mexico's significance beyond Florida's waters, Florida Governor Jeb Bush, in the spring of 2004, extended a call to action to the Gulf Governors to renew their commitment to the Nation's oceans by creating and leading a regional effort to protect the Gulf of Mexico. As a result of a shared vision for a healthy and resilient Gulf of Mexico coast, the Gulf States, together with its Federal partners, formalized the Gulf of Mexico Alliance.

In December 2004, President Bush's U.S. Ocean Action Plan recognized the leadership the five Gulf States had demonstrated in forming the Gulf of Mexico Alliance. With the added involvement of the Federal Government, the growing Alliance of the Gulf communities, regions, entities and even Nations, has become a national and international model for cooperation.

The first action taken by the Gulf of Mexico Alliance was the development of the Governor's Action Plan for Healthy and Resilient Coasts.

The Alliance identified five priority issues that are regionally significant and can be effectively addressed through increased collaboration at State, local, and Federal levels:

- improvement in Gulf water quality with an emphasis on healthy beaches and shellfish beds,
- restoration and conservation of coastal wetlands,
- environmental education,
- identification and characterization of Gulf habitats to inform management decisions, and
- reductions in nutrient loadings.

Each State would lead a regional framework for each of the issues.

Through an inventory of detailed implementation activities by Alliance members, the Federal Workgroup, and other partners, the Governors' Action Plan challenges the new Alliance partnership to make tangible progress on these five priorities over the next 36 months.

Mr. Griffith displayed the current structure of the Federal Partnership Framework.

He showed power point presentations of each of the following issues and described the problem and the Federal partnership response

- Nutrient Reductions,
- Water Quality,
- Coastal Wetlands,
- Habitat Identification, and
- Environmental Education.

Open Discussion

Dr. Shinn asked if the USGS had any involvement. Mr. Griffith responded that USGS, MMS, and the FWS are the three service agencies that DOI has participated directly with and who will actually meet in July in St. Petersburg, Florida, to take assessment of the Alliance's progress 1 year later for the publishing of the Plan. The USGS has formulated a marine strategy and is alternating some of its resources to get at some of these Governor's program proposals. Mr. Griffith pointed out that MMS's administration of the CIAP offers great potential to begin to assist addressing many of these project areas through implementation.

Dr. Joseph Smith asked Mr. Griffith to comment on what the coastal Governors are doing to engage more inland States which are probably major contributors of the overall nutrients that come down the rivers. Mr. Griffith replied that the Governors have chosen to recognize that not only will hypoxia need to be addressed, but also related suffering estuaries must also be addressed. He added that there is a relationship that has come on the coattails of the Federal task force framework which is to try to figure out how to engineer a better understanding with inland States.

Dr. Diaz asked if each participating State has an office dedicated to the Alliance. Mr. Griffith explained that each State has a representative senior staff team leader in each one of the areas. Basically, as of now, the day-to-day staffing, the day-to-day architecture of keeping this program rolling forward comes from his personal office in the Stennis Space Center and through NOAA's National Ocean Service programs. He said that he has numerous Federal staff leads from the 13 Departments/Agencies participating in each one of these areas. The largest part of the staff support comes from NOAA and the EPA. He announced that the Coastal Services Center's Gulf Regional satellite office has just been established in the last several months at the Stennis Space Center; therefore, staffing of that operation at the Stennis Space Center is currently underway.

Dr. Priest asked Mr. Griffith to expand on the efforts the Alliance is making with Mexico and other parts of the region. Mr. Griffith explained that the Governors' Alliance manages the six Gulf States through two direct avenues:

- 1) Gulf States Accord which was signed in 1995 by the representatives of the eleven States of the U.S. and Mexico that share the Gulf of Mexico region. The objective of the Accord is to establish working partnerships among these States to promote economic and infrastructure development, as well as educational and cultural exchanges.
- 2) The Alliance is working with key interests at the Governor's level in Veracruz to consider the formation of a parallel MX Governors' Alliance.

Efforts to workout collaborative programs in advance

Mr. Cimato stated that the MMS looks at other Federal programs to see where there are opportunities for collaboration. MMS's interaction with the NOPP has certainly been a successful collaboration over the years, with the first project in 2002. He added that repeatedly, there have been excellent opportunities for working with others on initiating research that would reap mutual benefits.

The DOI fosters coordinated research programs and, through the initiatives of the Secretary's office, each of the bureaus identify research on priority issues that be conducted through partnership.

Collaboration begins in the planning stage during the development of study plans. Mr. Cimato said that we reach out to a broad stakeholder community to identify information needs that are relevant for the offshore programs. Stakeholders' issues and information needs at both the national level as well as at the regional level are considered. Collaboration also occurs through the numerous interagency committees which MMS participates on.

He explained to the Committee that ESP planning includes:

- stakeholders - anyone with an interest in the OCS Program,
- multiple and diverse inputs from citizens and organizations, and
- national and regional level.

He announced that there are two upcoming workshops:

- *An Alternative Energy Strategic Studies Plan Workshop* which is an important step for the MMS in communicating and developing a collaborative relationship with other Federal agencies, affected State and local groups, and industry. The workshop will identify potential environmental studies to fill identified information gaps in topical areas including the biological sciences, social sciences, and coastal processes.
- *A USA-Mexico Workshop on Deepwater Physical Oceanography of the Gulf of Mexico* scheduled for

June 26-28, 2007, in New Orleans. This workshop will plan field and modeling studies of the deep water physical oceanography of the Gulf of Mexico Basin. Recent observational and modeling results will be reviewed and future needs and opportunities for coordination and collaboration between U.S. and Mexican field and modeling studies will be examined.

At the project level – we've moved from planning to program execution. The Lophelia Study illustrates a high level of collaboration with several universities and also with our sister agency, the USGS, performing components of the work in a complementary fashion.

Gulf of Mexico OCS Region

Dr. Pat Roscigno reported that the Region is always looking for new partnerships and new opportunities to leverage money. He stated that getting new partners doesn't actually result in loss of control of the project. He sees partnering as an enriching process that adds a level of complexity and detail to the study that if MMS went by itself would not be able to produce.

He told the Committee that the Region has had successes with its Sperm Whale Seismic Studies Program, the Benthic Ecology Program, and Deepwater Physical Oceanographic Program. He was on a Committee to a 3-year study by the Department of Transportation and USGS looking at the impact of global climate change on infrastructure in the Gulf of Mexico that has just been completed and he sees opportunities for new partnerships.

He said that to him, this has been a real eye-opener in that a lot of the issues in the OCS are going to be intimately tied in with global climate change. Depending on which scenario you are looking at, it could be something that could be adapted to and worked on over the decades or there might be opportunities for testing situations occurring, too.

One of the lessons he has learned from being on that Committee for the last few years is that one really has got to start thinking now about designing structures. If structures are going to be set out in the ocean, one has to start making adjustments for global climate change whether it is severe or not.

Pacific OCS Region

Dr. Fred Piltz reported that collaboration is certainly not new to the Pacific OCS Region since it has been done as long as he's been in the program. He mentioned the following initiatives:

- The Multi-Agency Rocky Intertidal Network (MARINe) where there are more than 20 other Federal, State, and private partners that have been involved in monitoring the entire Pacific coast for 10 or 15 years.
- The Region is also working with USGS on mapping the bottom of the ocean in various parts of southern California and looking into the chemistry of natural oil seeps.
- Working very closely with the State of California and the Department of Fish and Game. One of the Region's staff is managing a project being funded by the Oil Spill Response Group using their funds.
- The Region is involved in sitting in various meetings with the Pacific Coast Ocean Observing System (OOS) and a staff member is on the Board of Governors for the Southern California OOS.
- The West Coast Federal Working Group which is part of the West Coast Governor's Agreement on Ocean Health was signed by the three State Governors: California, Oregon, and Washington, in September of 2006.

Dr. Piltz stated that, in his opinion, one significant difference is due to Dr. Kendall's continued involvement and pro-active encouragement for the MMS to become involved in these issues. He announced that he is one of the Co-Leads now in the DOI. The Co-Lead on the West Coast is Mr. Griffith along with the EPA and NOAA.

There are some other significant differences between the programs as it is evolving on the West Coast with that program that is evolving in the Gulf of Mexico or the Northeast Regional Alliance. The Region will probably focus on fewer topics than the Governors want to address; there are seven topics in the draft strategy paper right now, one of which is Eco-management, which is not really a goal or a strategy. It is more of a method and it will hopefully fall out leaving six areas. The two areas that have the most interest for the West Coast States are those that have traction such as alternative energy and mapping.

All three states – California, Oregon, and Washington - are very serious into detailed habitat mapping of the Pacific Coast, mostly in State waters but will include Federal waters. The State of California has talked about potentially adding \$15 million, which is estimated to be a \$25-40 million project just with regard to mapping.

Alaska OCS Region

Dr. Richard Prentki stated that the Alaska OCS Region has done a lot of collaboration work also. One done currently is the Arctic Nearshore Impact Monitoring in Development Areas (ANIMIDA). A lot of logistical support was received from the oil industry on the Northern Slope because the Region has worked through its lease areas.

Another one is the North Slope Science Initiative, which is a Federal and State agency with the North Slope Environmental Compliance in the land areas that adjoins the Chukchi and planning areas. There is potential sharing of research efforts; the Compliance has a little bit of its own funding that MMS may be able to use to support a portion of MMS studies.

Another example of collaboration is the group of oil companies that will be spending about \$7 million, U.S. dollars, to look at oil and ice behavior and cleanup capabilities. The MMS has managed to get into that program since there is a study of oil and ice and snow, which the oil companies wanted the data from before the study is concluded. The data was explained early on so that the oil companies will allow MMS access to their data when they do their work and also a license to use the new data when it comes out.

Another example is the Chukchi Offshore Monitoring in Drilling Area (COMIDA) profile. The Region is working on essentially a sampling with what is being called the Alaska Program being funded by the EPA. If that goes through, MMS will coordinate with them on their study.

Dr. Prentki also mentioned the Bullhead Whale study, which is a high tech multi-disciplinary approach.

One last example is a study in which there is a national consortium of partnerships between various agencies and universities where the MMS has actually started studying the social economic studies.

Some Highlights of the MMS *Environmental Studies Program* and Our Goal for the Next Day-and-Half

Mr. Cimato explained that the MMS's focus is on the research being done and made a few remarks regarding the all-important program review the Committee gives.

He stated that the mission of MMS is to manage the energy and mineral resources on the OCS in an environmentally sound and safe manner and to timely collect, verify, and distribute mineral revenues from Federal and Indian lands.

The MMS ESP mission is to provide the information needed to predict, assess, and manage impacts from offshore energy and marine mineral exploration, development, and production activities on human, marine, and coastal environments.

He stated that the ESP budget for FY 2006 was about \$19 million and that the distribution of research allocations last year emphasized new activity in Alaska and more research resources are being directed to address the evolving information issues and needs in that area. There were about 36 projects started last year program-wide. In addition to the \$19 million budget last year, OCS information needs were also addressed through USGS which has a budget on the order of \$2 to \$2.5 million that can be directed to address some of MMS's biological information needs.

Last year Mr. Cimato reported to the Committee that when MMS makes awards for research, several procurement vehicles are used, such as cooperative agreements (CA's), interagency agreements, and contracts. Each year, MMS reports how much money is spent to the National Science Foundation, which prepares a report to Congress on how all Federal research dollars are being spent. From year to year, funding to universities has remained reasonably stable.

This year, the ESP has a budget of \$17 million. Of that, close to half is available for new research projects and it is anticipated that 25-30 new projects, including those through the Coastal Marine Institutes (CMI), will be started.

FY 2008 budget. Mr. Cimato expects a slight increase in the FY 2008 budget with about half being available for new research projects. Topics will cover oil and gas and renewable energy information needs.

The MMS has worked hard to develop partnerships with NOPP, NOAA, and the Office of Naval Research. He stated that MMS has been engaged in NOPP for several years and these projects always lead to good things. Examples include:

- Chemo III,
- shipwreck studies, and
- currently participating in the NOPP Broad Agency Announcement on marine mammals and the ice-diminished arctic.

In the last year, increased emphasis has been placed on federal agencies when making awards for grants and CA's to post the opportunities to the federal website grants.gov. DOI has promoted this and MMS began posting announcements this fiscal year.

Mr. Cimato explained this year there have been three notices of opportunities posted. One was for the Louisiana State University (LSU) CMI, which is one of MMS's stellar CA's; another was a CA with the University of Alaska CMI; and the third was an announcement regarding other cooperative work that would be initiated this year within the ESP.

Mr. Cimato mentioned that the MMS is working hard trying to inform as broad a public as possible on the research opportunities that are available. Along with the MMS website and grants.gov, there are routine procurement announcements, the continued sponsorship of information meetings, and numerous workshops and symposia to get the word out and to inform people of the research opportunities for this focused applied research program.

Mr. Cimato then described the activities for the remainder of the meeting. For the next couple of days, the Regions and Headquarters staff are going to present to the Committee, in its Discipline Breakout Groups, draft study plans that cover FY 2008, 2009, and some of 2010. He invited the Committee to offer critical review and challenging discussion.

In determining priorities, focus remains on:

- mission relevance,
- technically feasible,
- scientific merit,
- timing,
- applicability, and
- affordability.

Meeting mechanics. Mr. Cimato explained to the Committee that it will break into Discipline Breakout Groups: biology, physical, and social sciences. Each Discipline Breakout Group will be led by a Committee member and there will be an MMS team lead to assist with taking notes. At the end of the day, there will be a session to summarize recommendations.

Mr. Cimato also asked the Studies Chiefs to briefly highlight the research in their Regions.

Pacific OCS Region. Dr. Piltz announced that the Region has completed a summary of the last stage of the University of California Santa Barbara's (UCSB) CMI and that he distributed two CDs to each Committee member. One CD contains the final study report and the other CD has PDF files of the journal articles that came out of the CMI at UCSB for the period of 1994 to 2000. The Region is finishing up the CMI agreement that is currently in place and it is hoped that the University does a similar summary of both articles which he will distribute in the near future.

He reported that there have been several liquid natural gas proposals off California – the most recent one was denied by the State agencies and the Governor. He believes that there are at least three others in the planning and talking stages. There is a Liquefied Natural Gas (LNG) facility that is been built off of Baja, California; and he's not sure where it stands in terms of its completion and what is going forward with the Government of Mexico. So, there will be an LNG coming into the Pacific Coast although to come into the U.S., it will come up through a pipeline through Mexico.

In the Pacific, the Region has held a meeting to try to develop an index of intertidal health since there is a variety of sea ecology. This would be a numerical index to describe the tidal health based on a lot of the work that has been done on the Pacific Coast.

The MMS was a major sponsor of the West Coast Governor's Agreement on Ocean Health which has been signed since the last OCS SC meeting. The MMS staff and scientists are members of the Steering Committee which has held several sessions. One of the sessions was on decommissioning and, subsequent to that, a major meeting occurred on decommissioning in the State of California. He mentioned that it does appear that Fish and Game was looking at drafting legislation or regulations for rigs to reef program but he is unsure when that might actually reach the public; however, there have been serious steps taken. He also announced that there are several new operators in the Pacific Region, one of whom is looking at enhancing existing production off of Long Beach. So, there is still continuing interest in the Pacific.

Gulf of Mexico OCS Region. Dr. Roscigno told the Committee that he is pretty excited about the upcoming loop current studies in the Gulf of Mexico OCS since those studies should provide a lot of information in a key area that is going to be developed in the next few years. There are issues with interaction of platforms with the current, the whole involvement of loop current, and hurricane intensification, and, at the same time, tying loop currents in with the rest of the deep water.

In light of that, it is hoped that the Mexican associates come forward with their oceanographic program so that the loop current study can be modified for a year and tied into their monitoring system. This would almost create a baseline study of the loop current in the deep waters of the Gulf of Mexico deep water for about a year, which he believes would contain very important information.

On a more general level, there are a lot of challenges in deep water including challenges in emerging issues. He fears that with all of the regional and national needs, there may not be enough funds to cover all information needs. The Region has been trying to become more efficient working with other agencies in MMS but more money will be needed down the line.

Alaska OCS Region. Dr. Prentki stated that a monitoring project is winding down in the Beaufort; therefore, the Alaska OCS Region will be doing some publications or presentations that have come out of that. Two major focal points are two workshops: the North Aleutian and the Chukchi monitoring workshops that were held last fall and there are several studies in consideration in the next couple of days which came out of those workshops.

Open Discussion

Dr. Coleman asked if the East Coast studies were being run out of the National office. Mr. Cimato replied that it depends since the Gulf of Mexico OCS Region is responsible for administering OCS leasing in the Gulf as well as the Atlantic. So, when the Gulf identifies a research project that would be apropos to the Atlantic, they will be managing those projects. There will be some projects that Headquarters may be directly responsible for, but normally, it would be the Gulf of Mexico OCS Region.

Summary of Alaska Subcommittee Activities

Dr. Castellini told the Committee that the COMIDA Planning Workshop was held November 1-3, 2006, in Anchorage, Alaska, and Subcommittee members Drs. John Trefry, Lynda Shapiro, and Peter Schweitzer were in attendance. Those who attended the NAB Planning meeting were himself, Drs. Will Schroeder and Duane Gill.

COMIDA Workshop. He explained that the purpose of the COMIDA Workshop was to discuss and identify specific needs for monitoring environmental effects of OCS exploration and development in the Chukchi Sea.

Below are titles for the various tasks the Alaska Subcommittee identified as specific needs:

- Physical Oceanography and Fates and Effects
- Data mining
- Chemical and hydrocarbon monitoring
 - Supporting physical studies
- Biology, including Benthos, Fish and Waterfowl
 - Quantitative benthic characterization
 - Effects of Onshore and Offshore Development on Birds
 - Sea Forage Fish

- Characterize the Chukchi Sea Ecosystem
- Protected Species
 - Seasonal distribution and abundance of marine mammals: acoustic assessments
 - Seasonal distribution and abundance of marine mammals: aerial
 - Seasonal distribution and abundance of marine mammals: tagging
- Socioeconomic and Subsistence
 - Impact assessment for offshore subsistence hunting (2008; 2011)
 - Impact assessment for near-shore subsistence hunting (2010; 1013)
 - Impact assessment for offshore subsistence hunting (2012; 2015)

(Dr. Castellini's report, recommendations, and MMS's response to the recommendations are included in his attached presentation.)

NAB Planning Meeting. The NAB Planning Meeting brought together scientific, agency, user, and public members to describe the major issues relative to possible lease sales in the NAB.

Dr. Castellini reported that the Subcommittee commented on the meeting process, requested materials for review as the agency moves through the next several steps of recommending studies, and provided a "first-look" review of the scientific findings of the meeting. He announced that a full report on the meeting and the results of the workshop will be provided by Argonne sometime in December.

(Dr. Castellini's report, recommendations, and MMS's response to the recommendations are included in his attached presentation.)

Open Discussion

Dr. Rex asked that someone clarify what exactly the relationship is between an EIS and the environmental studies that MMS does. Mr. Cimato said that the EIS' are typically written in-house so it is not a contractor doing it. Secondly, the MMS has been managing the ESP for about 30 years or so and one of the most important things is that the research is done in order to obtain the information for these documents. When the report is received, it is reviewed along with the EIS. Dr. Prentki added that the Alaska OCS Region works very closely with the EIS writers and that they are the primary customer. For the COMIDA studies, the next sale in the Chukchi is coming up very soon. The COMIDA projects are going to be a post-EIS product, and will be monitored after the sale. Dr. Roscigno added that the EIS's in the Gulf of Mexico OCS Region also run ESP studies; therefore, it is the same person doing the studies.

Dr. Fry said that he assumes the FWS is involved when it comes to interagency confrontations with seabirds and NOAA when it comes to seals and other marine mammals. He asked that, with the development of the NAB, is there a process underway to analyze how the oil gets out of there to Los Angeles or wherever it is going to go, if taking tankers through the Unamak Pass, or will there be a pipeline to Anchorage, and have there been any environmental studies to support either of those things. Dr. Prentki replied that current scenarios have been developed and that the oil and gas will probably be piped to the southern side of the Aleutian Peninsula and tanked from there. Dr. Cleve Cowles said that the FWS has been consulted. One point to make about the North Aleutian is that it is still part of the proposal; no final decision has been made. What has been done over the past months is hard work in anticipation of that decision so that MMS will be positioned to get information.

Summary of Deepwater Subcommittee Activities

Deepwater Subcommittee members, who attended the 24th Information Transfer Meeting (ITM) held in January 2007 in New Orleans, were Drs. Joe Smith, Will Schroeder, Mike Rex, and Robert Diaz.

The Subcommittee held a follow-up discussion on the meeting presentations and prepared a brief report commenting on three aspects of the deepwater ESP: research on deepwater corals, effects of deepwater oil and gas exploration on and development on the continental shelf, and vessel resources for deepwater research. Dr. Smith summarized the main points of this discussion and reported to the full Committee.

The Subcommittee recommended:

- synthesis of learnings prior to commissioning the next generation studies of deepwater corals,
- that MMS work with other agencies to shift blue water vessel and submersible resources to the Gulf of Mexico OCS Region, and

- the OCS SC should ask for updates on agreements for international collaborations.

The Subcommittee also noted that a question was raised at the ITM concerning the desirability of extending the existing deepwater exploration and development effects study to the ~2500 m depth range from the current study depths of ~1000m . The Subcommittee saw no clear need for study at greater depth unless there was some indication forthcoming of qualitatively different impact mechanisms.

(Dr. Smith's report, recommendations, and MMS's response to the recommendations are included in his attached presentation.)

There Were No Questions.

Overview of the Coastal Marine Institute

Dr. Larry Rouse announced that the CA was renewed in FY 2004 reflecting the continued success of the program. Since its inception in 1993, closer cooperation has been achieved, 128 projects have been funded, and MMS has funded \$25,538,367.

He explained that the rationale for these CA's is to use existing talent at local universities that have an expertise in understanding the three regions with the idea that they can collect and disseminate environmental information on the OCS that is of use to both the MMS and the whole Gulf of Mexico.

He explained that the CA is a one-to-one match, meaning that for every dollar that comes from the MMS, the State, the University, and contributions from oil companies, match that.

The CMI at LSU focuses on:

- collecting and disseminating environmental information for decisions,
- addressing local and regional environmental and resource issues,
- strengthening the MMS/State of Louisiana partnership,
- high-quality local expertise,
- credible study results,
- improving local capabilities,
- interdisciplinary research,
- MMS/Louisiana consensus, and
- cost reduction by co-funding research on problems common to MMS and the state.

Recent research projects that have been funded through the CMI include:

- Sociology and Economics
 - *Factors Affecting Petroleum Exploration and Development and Their Impacts on the Attractiveness and Prospectivity of the U.S. Gulf of Mexico Deep Shelf and Deep Water,*
 - *An Examination of the Development of LNG Facilities on the Gulf of Mexico,*
 - *Social Capital and Offshore Oil Development in St. Mary Parish, Louisiana,*
 - *Environmental Justice A Comparative Perspective in Louisiana, and*
 - *An Assessment of the Opportunities for Alternative Uses of the Hydrocarbon Infrastructure in the Gulf of Mexico.*
- Toxicology and Biology
 - *Foraminiferal Communities of Bathyal and Abyssal Hydrocarbon Seeps, Northern Gulf of Mexico: A Taxonomic, Ecologic, and Geologic Study,*
 - *Determination of Net Flux of Reactive Volatile Organic Compounds at the Air-Water Interface in the Gulf of Mexico,*
 - *Digital Conversion and Analysis of Dive Tapes From Fifteen Dive Seasons, and*
 - *Participation in the Census of Marine Life Project SYNAD3, a Synthesis Including MMS-Supported Deep-Sea Data.*
- Platform Ecology
 - *Fidelity, Residency, and Migration Rates of Red Snapper at Petroleum Platforms and Artificial Reefs in the Northern Gulf of Mexico,*
 - *Determining the Geographical Distribution, Max. Depth, and Genetic Affinities of Corals on Offshore Platforms, Northern Gulf of Mexico,*
 - *Platform Debris Fields -- Extent, Composition, and Biological Utilization, and*

- *Assessing Trophic Linkages Between Platforms and Pelagic Fishes Using Ultrasonic Telemetry and Active Acoustics.*
- Physical Process
 - *Observation of Deepwater Manifestation of Loop Current Rings,*
 - *Variability of Deep Water Mass Properties and the Loop Current in the Eastern Gulf of Mexico,*
 - *High-Resolution Model of Current-Topographic Interaction in the Gulf of Mexico, Breton Sound IMPROV Site, and*
 - *Production Induced Seafloor Subsidence in Offshore Oil and Gas Fields as a Possible Contributor to Onshore Fault Reactivation and Land Subsidence.*

2006 Projects include:

- *Spatial Restructuring and Fiscal Impacts in the Wake of a Disaster,*
- *Post Hurricane Assessment of OCS-Related Infrastructure and Communities in the Gulf of Mexico Region,*
- *Deep-Water Coral Distribution and Abundance on Active Offshore Oil and Gas Platforms and Decommissioned "Rigs-to-Reefs" Platforms,*
- *Effects of Loop Current and Loop Current Eddies - Analysis Using the Real-time MMS ADCPs from Oil Platforms,*
- *Platform Recruited Reef Fish, Phase II: Do Platforms Provide Habitat that Increases the Survival of Juvenile Reef Fishes,*
- *Diversifying Energy Industry Risk in the Gulf of Mexico,*
- *A Study of Long-Term Trends in Environmental Parameters (Chlorophyll, Dissolved Organic Material, and Total Suspended Matter) Along the Louisiana/Mississippi Shelf Using NASA Remote Sensing Data and Products,*
- *Gulf Coast Subsidence and Wetland Loss: A Synthesis of Recent Research,*
- *Marginal Production in the Gulf of Mexico and Lost Production from Early Decommissioning - Economic, Environmental, and Regulatory Perspective, and*
- *Management of the CMI at Louisiana State University.*

Dr. Rouse introduced Dr. David Dismukes who gave an update on the Center for Energy Studies CMI Projects; Drs. Gregory Stone and Richard Condrey, who gave an update on the *Environmental Investigation of Long-Term Use of Ship Shoal Sand Resources*; Dr. Chunyan Li who gave a presentation on characterizations of the deep water flows under hurricane and non-hurricane conditions using oil platform ADCPs; and Dr. Mark Benfield, who gave a brief presentation on ecological relationships between platforms and pelagic fishes.

Open Discussion

Dr. Rex asked Dr. Rouse to give the Committee an idea of the funding range that LSU provides for in the median and also what portions of the projects have a matching fund. Dr. Rouse replied that grants cannot be matched by Federal funds. Most of the match has been from university funds, i.e., faculty salaries and graduate student support from the university. The university will fund ship time or equipment on individual projects ranging from 1-3 year projects.

CMI Studies on Energy and Economics

Dr. Dismukes explained that the Center for Energy Studies was created in 1982 by the Legislature. The center's mission is to conduct timely and important research on topics that impact the State with energy industries and how that impacts the Louisiana economy, the environment, and our citizens in general. He also described each of the divisions within the center and explained that it is dedicated primarily to doing applied research as well as service for the State.

He described the MMS study categories and gave background on each:

- Infrastructure Studies. Studies focused on the infrastructure in the Gulf of Mexico that addresses pertinent environmental and economic issues.
- Modeling Studies. Studies completed to provide modeling capability on issues of interest to the MMS.
- Regulatory Studies. Studies completed in support of regulatory issues of interest to the MMS and often as part of a need for specific information in support of regulation.
- EIS Studies. Studies performed to support MMS requirements in EIS data collection, reporting and analysis.
- Topical (General) Studies. Studies performed at the request of MMS or suggested by researchers for topics of general interest.

He stressed the scholarly and vital importance of the CMI Program – not only for MMS but for LSU as well. He added that it has been certainly an important program over the last year or so and a number of controversies and issues have arisen in terms of Gulf activities. It has created a number of publishing opportunities and speaking engagements for the general citizenry on these offshore energy industries and their importance. Based on the counts, he believes there has been anywhere from 100 to 118 publications and presentations.

Open Discussion

Dr. Priest asked Dr. Dismukes to talk about the MMS role in the LNG industry. Dr. Dismukes replied that once this started, there were jurisdictional issues and questions arising as to whom would have the primary authority on these issues. There was some concern that MMS would be in that role and needed to have some research on these issues pretty quickly. As that got ironed out between the Coast Guard and the Federal Regulatory Commission, they started taking more of a dominant role in that process. The MMS's role was downgraded somewhat, but it is important for MMS because it does impact a number of the primary activities in terms of leasing properties in the Gulf of Mexico, offshore production activities, and whether or not there are conflicts in a stated area out in the Gulf of Mexico with LNG tankers. There have been other issues in terms of things the MMS has to look at in terms of the supporting infrastructure that will be impacted significantly by LNG investments in the region. Pipe line vessels are an important issue and would add supplemental benefits to many of the gas pipe lines and gathering systems.

Ship Shoal Sand Resource Study

Dr. Stone stated that his group at LSU has been working with the MMS at the Ocean Studies Institute, Department of Oceanography, for quite some time and explained that his presentation would focus primarily on ship shoal. What is exciting about this project is that it is not only coastal hydrodynamics and physical process in geologically, but it is also the biological processes.

He described the overall objectives of the *Environmental Investigation of Long-Term Use of Ship Shoal Resources Study* as:

- quantify potential long-term impacts of mining Ship Shoal for large-scale barrier restoration,
- examine bottom boundary layer physics and sediment transport on Ship Shoal benthic habitat characteristics (meio-/macro-fauna), and
- Quantify links between physical, geological and biological processes.

He recognized Dr. Coleman, a Committee member, who is an expert on coastal erosion, and said that coastal Louisiana loses up to 60 feet per year. Some of the standard specifics in terms of wetland loss are up to the LSU football field every 15 to 30 minutes, so there is a profound problem.

As Dr. Coleman's work has shown, along with other scientists from Coastal Studies, one of the major problems is androgenic. But, another major problem is a significant reduction in sediments applied to the coast. Since there is not a lot of sediment offshore, something fairly innovative had to be done. This is where MMS, several years ago, got involved. One of the sand bodies offshore is Ship Shoal which contains millions upon millions of cubic meters of sediment that can be reworked mechanically onshore to help in coastal restoration efforts.

He mentioned transgressive sand shoals occur when sediments out on the shelf have been abandoned due to rising sea levels. So, the importance is that wave currents are constantly reworking this material and it is gradually working onshore, but the finer grade sediments are being dwindled out of these deposits and that is what makes them attractive in terms of potential targets for beach replenishment along the coast.

He said that one of the major issues is what the impact will be if portions of the transgressive sand barriers are removed over time by the hydrodynamics, the geology, sediment transport, and the biological processes associated with sand removal. He mentioned that sediment sands have been dredged from offshore and pumped onshore but it exasperated the problem due to a substantial change in the hydrodynamics.

Other than observing Ship Shoal and other shoals that are not only viable sand targets, there has also been lot of numerical modeling. The last point he mentioned is what bonds the biological and the geological physical processes are those who want to know why there is the biodiversity on the shoals, what are the important implications, and how does one relate that for the hydrodynamics.

Dr. Condrey pointed out some of the biologically highlights that have been found on Ship Shoal, such as blue crabs spawning. One of the integrated features found on the shoal as compared to the offshore area, is that the shoal is shallow enough currently for a significant amount of benthic primary productivity.

Dr. Condrey reported that the shoal is sinking in relation to the surface of the water. There were three historically conducted surveys in 1853, 1889, and 1936. When compared to recent survey depths, it was found that the recent depths were generally a fathom deeper than the charts indicated. This has an important biological consideration because, while finding viable productivity on the shoal surface sinks in relationship to the sea surface, primary productivity on the shoal is going to be lost.

In terms of the meiofauna and macrofauna, the shoal is a biological hot spot. It is a sandy area surrounded by a muddy area, and a higher species richness of everything is being found. Combinations of polychaetes are being found that should not be co-existing in very close proximity to one another which indicates that there is a lot of micro-habitat occurring on the shoal. The reason it is a hot biologically effective hotspot is due to the fact that the shoal is shallow enough that the hypoxic waters don't seem to come up on the shoal. No hypoxic events being sampled on the shoal were ever encountered.

He said that there have been indications from the abundant amphipods found on the shoal that the area is not routinely impacted by hypoxia; therefore, it seems to be a refuge for a number of organisms during hypoxic events. At the same time, the predation by larger macrofauna coming in is not sufficient to reduce the population. A number of species have also been found on the shoal which would be found off shoal areas. It became evident that during these hypoxic events, the shoal was a hypoxic refuge and would also provide for recruitment to the offshore areas.

The crabs that were found were very healthy. A gut content analyses was conducted on the crabs to see what they were doing on the shoal and it was found that they were utilizing a variety of resources found on the shoal, especially shrimp, crab, the gastropods, and the bivalves. The crabs taken from the eastern part of the shoal contained more shrimp than crabs and the crabs taken from the western part of the shoal contained the gastropods and the bivalves. That reflects the distribution that we see of the bivalves and the snails on the shoal.

Dr. Condrey reported that current conditions around the shoal are indicative of factors that may enhance the survival of blue crab larva once released into that area. Blue crabs are an important source for endangered sea turtles, especially the Kemp's Ridley and the Loggerhead. A few sea turtles have been seen swimming around the shoal, but this study focused on blue crabs and not sea turtles. Conservative management will be interested in the possibility that these turtles are foraging on the shoal during the time blue crabs are using it for spawning activities.

Open Discussion

Dr. Fry asked in regards to biological diversity and the number of organisms, what it means for using the ship shoal for beach and coastal restoration. Dr. Condrey said that it depends on how and where the shoal is mined. He explained the first area to be mined is the east Ship Shoal block 13 which is an area of lower diversity. All of the species, the macrofauna that were found in that particular area, were also found on the shallower part of the shoal. On the shallower part of the shoal, a number of species that do not occur on the eastern part of the shoal were found.

Dr. Castellini asked Dr. Condrey to remind him of the depths of the shoal on each side. Dr. Condrey explained that it gets down to around four fathoms on the east side and two to three fathoms on the west side.

Dr. Castellini referred to a prior statement about the shoal sinking a fathom over so many years and questioned the significance of this find. Dr. Condrey explained that, with the turbidity in Louisiana waters, he would argue that it is significant. When going off the shoal and the one station that is in clearer water, benthic primary productivity is negligible and that station is in comparatively shallow waters. He commented that although he is not the primary productivity expert, a fathom difference in depth in Louisiana is definitely a big difference in primary productivity given the turbidity.

Data Analysis for Acoustic Doppler Current Profiles from the Offshore Oil Platforms

Dr. Li presented the Committee with preliminary results from data analysis for ADCPs from the offshore OCS region oil platforms.

On April 21, 2005, the MMS issued an NTL that required oil companies to report ADCP data from their platforms and post this on a web page that can be accessed by the public. The ADCP data were used by the oil companies for structural design, critique criteria, and routine operations. These data sets are being used by the CMI to provide a very unique data set that has never been possible anywhere at anytime in any other OCS region in the world.

He then presented a Power Point slide describing some of the platforms as being fixed and some as being moved every few months. In cases where the platforms stay for a year or so, quasi-fixed stations are used.

The objective of one study he mentioned was to look at much larger scale dynamics of the OCS region of the northern Gulf of Mexico influenced by loop currents. During Hurricanes Katrina and Rita, and other hurricane seasons, most stations were shut down. A couple remained out in deep water because it was thought there would probably be no affect from the hurricanes; however, unique and fantastic results were obtained from these deep water stations.

He continued with his Power Point presentation and explained in great detail what was being shown.

Platform Ecology

Dr. Benfield is an Associate Professor in the Department of Oceanography and Coastal Sciences and has been working with industry offshore for over 10 years.

He reported that a common feature of the solid platform structures is fish and he explained that the Blue Runner, also known as the hardtail, is the species that he is studying under the CMI. It is the most abundant pelagic fish around platforms and is consumed by almost all of the larger predatory fish. They form large surface schools with tens of thousands of individuals that are visible at the surface during the day. They are voracious feeders and previous studies have indicated that their diet is largely zooplankton and micronekton. These species also feed at night and it is believed that the lights on the platforms are enabling these fish to feed 24/7 giving them a big, energetic advantage over fish that are not in proximity to platforms.

He said that organisms have been studied around the ST-151 platform and surrounding fields, about 40 miles offshore southwest of the Louisiana delta, using a telemetry system. Eight underwater hydrophones linked to a small lab enabled one to listen to sound pulses from tagged fish. The sound propagates outwards and it arrives at the hydrophones at different times. These time delays allow the position of the fish to be localized in two dimensions and the tags transmit the depth of the fish to provide a 3D location.

He stated that 47 fish prior to Hurricane Katrina were tagged and, even though Hurricane Katrina went nearly over the platform, almost 3 weeks of great data sets were recorded in a very high temporal resolution.

An example of the movements of one fish, observed for an hour, indicated behavior consistent with surface observations of schools. It swam around the platform and frequently darted into the structure, perhaps in response to vessel traffic or predators.

Another observant made was that the fish displayed a very peculiar behavior down to about 20 meters at night and then ascending at dawn. A multispectral radiometer was used to look at the underwater light field with high resolution profiling around the platforms. It is believed that the fish go down to about 25 meters to avoid predators and where there is enough light for them to feed. They ascend to the surface during the day when predators are not feeding.

He explained another project that was presented to MMS using industrial ROV's to look for mesopelagic organisms; NOAA's Office of Ocean Exploration has been funding the project for the past year and a half.

Proposed Final Program Outer Continental Shelf Oil and Gas Leasing Program 2007-2012

Ms. Renee Orr was unable to attend the meeting; however, Mr. Joe Christopher gave her presentation.

Mr. Christopher quoted President Bush in his National Energy Policy, "America must have an energy policy that plans for the future, but meets the needs of today. I believe we can develop our natural resources and protect our environment."

He stated that the proposed final OCS program embodies the very essence of that vision by facilitating environmentally responsible energy development on the OCS in order to help meet America's growing energy needs. The program balances the need for domestic resources with protection of the human, marine, and coastal environments and recognizes the concerns of affected States and localities.

Oil and natural gas prices continue at historic highs and the Department of Energy and environmental impact analysis forecasts continued growth in domestic consumption. U.S. petroleum demand is expected to grow from 20.7 million bbls per day in 2005 to 27.6 million bbls per day in 2030.

The OCS is a vital source of domestic oil and natural gas for America, especially in light of sharply rising energy prices and increasing demand for these resources. This energy production will create jobs, provide greater economic and energy security for America, and can be accomplished in a safe and environmentally sound manner.

The OCS leasing and development program plays a very important role in meeting our Nation's energy needs. Natural gas derived from the OCS supplies about 20 percent of our domestic gas production. Sixty-three million American homes are heated by natural gas, and about 90 percent of the new energy plants that come online in the next decade will be powered by natural gas. Offshore oil resources account for about 30 percent of our domestic oil production; this share is expected to increase to almost 40 percent in the next decade. OCS contains billions of bbls of oil and tcf of natural gas that can be safely produced. The offshore energy industry has a remarkable safety record – two major hurricanes passed through the Gulf of Mexico in 2005 without causing a single significant spill from an OCS well.

He said that most of the oil in North American oceans is from natural seepage and that only two percent is from offshore oil and gas development. Offshore energy production is one of the largest sources of non-tax revenue for the Federal Government and will generate billions of dollars for the U.S. Treasury. Revenues from OCS energy production are shared with coastal states adjacent to OCS energy production. The proposed final program will provide hundreds of millions of dollars of new revenue for States to pay for roads, bridges, environmental restoration, and other critical needs. OCS revenues also support historic preservation and environmental conservation projects in all States through the Historic Preservation Fund and Land and Water Conservation Fund.

The Minerals Revenue Management distributes the collected money to U.S. Treasury accounts from offshore leases. In recent years, annual deposits have been nearly \$900 million to the Land and Water Conservation Fund and \$150 million to the Historic Preservation Fund. The remainder is sent to the U. S. Treasury's General Fund. Additionally, a portion of royalties from certain offshore federal leases adjacent to seaward boundaries of coastal states are shared with those states.

In preparing the new 5-year program, which the Secretary of the Interior approved, MMS consulted extensively with members of Congress, State, local and tribal officials, industry, and environmental organizations and received comments from more than a hundred thousand interested citizens. This mandatory review and comment periods totaled 8½ months to complete.

After more than 2 years of intense effort and three rounds of public comment, the Secretary announced the Proposed Final OCS Oil and Gas Program for 2007-2012, that included 21 lease sales in eight planning areas—eight sales in four areas in Alaska, 11 sales in three areas in the Gulf of Mexico, and one sale in the Mid-Atlantic off the coast of Virginia. The proposed final program could result in the production of 10 bbls of oil and 45 tcf of natural gas over a 40 year period and would result in \$170 billion in net benefits for the Nation over the life of this production

He explained that prior to any sales being held, environmental studies on a range of topics pertinent to identify issues are conducted. Potential studies would be in the disciplines of physical oceanography, fate and effects of pollutants, endangered and protected species, biology, marine ecology, social science and economics, and environmental monitoring. The MMS works closely with the local governments, Native villages, federally recognized tribes, industry, and others to understand and address issues and concerns and develop appropriate mitigating measures.

He displayed Power Point Presentations that described the sale areas and proposed studies for each area in each region.

He announced that the proposed final program and required documents were submitted to the President and Congress on April 30; the Secretary may approve the program after 60 days, and the new program will take effect on July 1, 2007.

Open Discussion

In regards to the Presidential withdrawal areas, Dr. Fry asked if there has been an assessment as to what the resources are in those areas and what proportion of the resource could actually be developed. Mr. Christopher said that is one of the issues. Without being able to get in there to do exploratory work, there are unknown resources.

Dr. Shinn commented that there are wells drilled in that moratorium area. Exxon drilled Destin Dome throughout 12 and found a lot of gas. So, there are resources there. Mr. Christopher agreed and said that there is a lot of information about that particular area. The MMS spent 3 years on the EIS to develop a project supported by Chevron and others in that area and the estimates were that there was enough natural gas to supply all of the State of Florida's needs for 9 years.

Dr. Shinn added that there is a 581 mile long gas pipeline that runs into Tampa Bay, the Gulf Stream Pipeline, which is six feet wide and six feet deep. Mr. Christopher responded that there are some statistics. One is that offshore oil resources account for more than 25 percent of our domestic oil production now. This share is expected to increase to almost 40 percent in the next decade.

Dr. Piltz pointed out that MMS's resources are conducted with USGS approximately every 5 years doing a National assessment of all of the hydrocarbon potential around the U. S. It was completed a few months ago and a summary of that is posted on the MMS website showing all the details at the field level. Of course, as Mr. Christopher correctly pointed out, in some areas where there had been actual drilling and some areas where there haven't been any recent geophysical surveys, the results are based on old data. This old data might be analyzed with newer technology and newer computers, but the numbers that are out there are the best MMS and USGS can produce. Mr. Gould agreed and said that it's also under the Gulf of Mexico Security Act for another inventory as well which is up for funding now.

Mr. Christopher commented that we are looking at ways to do seismic and there are a lot of issues involved. The point is there is not a lot of new information that goes into it. Mr. Gould replied that is an important point. USGS is basically doing a re-analysis based on software or upgrading software on data that was collected back in the early 1980s.

Dr. Castellini asked whether or not the entire moratorium area has to be lifted or can just parts of it be lifted. Mr. Christopher answered that the idea is that the State of Virginia expressed interest in this area. But the only way that sale will ever happen is if the Congressional moratorium is lifted and then the Presidential withdrawal is removed.

Mr. Gould explained that the area has two moratoriums – a Congressional moratorium and a Presidential Withdrawal. Mr. Christopher added that an analog is the South 181 area, which was under a Congressional moratorium that was lifted with the passage of the Gulf of Mexico Energy Security Act; and then the President, subsequently, in January of this year, removed the Presidential withdrawal of the area.

The Offshore Imperative, Shell Oil's Search for Petroleum in Postwar America

Dr. Priest said that he was hired by Shell Oil Company in 1998 to write the history of Shell Oil U.S.A. and has been working on the history of offshore oil off the Gulf of Mexico for quite a while. The history of offshore oil in the U.S. is really the history of Shell Oil since the beginning of the industry in the late 1940s.

He told the Committee that Shell Oil has set every historical milestone for the industry into deepwater; the company has sponsored innovations in mobile drillings, submersible rigs, jack-up rigs, invented the semi-submersible rig, and was the company that pioneered the way into deepwater.

It was an exciting project that he worked on for 4 years. About 75 oral history interviews were done plus a lot of other research. In March of 2002, just as he was expecting this book to go to the printer, Shell pulled it. Dr. Priest found out later that the president at that time resigned and was replaced by a new American CEO. The Director of Corporate Communications could have sent it to the printer and had it printed, but decided to send it over for one final blessing. It was then that the book was killed for a lot of different reasons. Shell was in a budget-cutting mode and the new management was from Europe, London, and The Hague. They didn't see the need to publish a history glorifying the American operating company.

What was really happening was the de-Americanization, or globalization, of Shell Oil. The new management for the downstream side of the business, Shell Oil's strengths were in the upstream Environment Management Plan. They claimed that there were some litigation concerns, but it had already gone through legal review. Dr. Priest agreed to do more interviews, work with management, and write a second book, which is the one that was published.

He then described in great detail the history of Shell in the U.S. and the history offshore. For more information and to order this book, please go to <http://www.tamu.edu/upress/BOOKS/2007/priest.htm>.

Dr. Priest pointed out that there are some good stories in the book. As the discovery and production of onshore oil in the U.S. faced an uncertain future after the Second World War, the offshore frontier in the Gulf of Mexico beckoned. Shell Oil Company pioneered many of the early moves into the Gulf, and during the next 50 years the company led the industry every step of the way into deeper water.

For Dr. Priest, this survey provides essential historical context for understanding strategic decision-making, scientific research, management of technology, and corporate organization and culture within modern oil companies.

May 24, 2007

Peer-Review Update

Ms. Elizabeth Burkhard explained that the Office of Management and Budget (OMB) issued a bulletin in December 2005 on how to conduct peer review of disseminations containing influential information.

She reported the DOI wrote draft guidance on how to implement the OMB bulletin and members of the Committee had participated in its review. Unfortunately, it's still a draft.

The bulletin has several requirements beginning with determining which projects are appropriate for peer review, and developing a peer review plan for each of those projects. The peer review plan includes several components describing how that information will be peer reviewed, such as:

- including a paragraph that explains what decisions that document might potentially impact, the time frame for the review, and the type of external review,
- addressing whether there will be opportunity for public comment, and if so, for how long,
- discussing how comments are going to be handled, i.e., will the official peer reviewers have access to the other comments that are made and whether the comments will be made public,
- estimating how many peer reviewers are expected, and where they will come from, i.e., Federal employees or members of the public, and
- describing what level of expertise reviewers should have in order to be well-chosen to do this review.

She explained that this meeting is the first step in the peer review process since the Committee is looking at potential studies to evaluate methodology and scientific validity.

There are a lot of different levels of peer review beginning with just a basic review. Some studies won't get past this stage and some will need the highest level of review, while others fall in between the extremes. Some studies will be evaluated by a subcommittee and/or a scientific review board which will review the study documents. They may be involved with reviewing the statement of work (SOW), draft interim reports, and the final report or just with the final report. Involvement of peer reviewers can occur at any or all stages of a study, as appropriate.

She further explained that an example of the culmination of peer review is the NOPP process and the peer reviewed journals. The NOPP has a very well established peer review process which is much formalized and the MMS participates with them as much as possible.

The next effort is to develop a studies team that will develop criteria to determine what level of peer review is appropriate for a given study. Guidelines are being created drawing from the OMB Bulletin and the DOI guidance and the Committee will be asked for its input in making certain those guidelines can be applied to the studies process, make it stronger, and make it formalized.

One of OMB's requirements is that the studies that are designated as influential get posted on the website with their peer review plans. She mentioned that currently there are two studies posted on the website with their peer review plans, as required by OMB. One of them is a study that addresses the issue of sea floor stability and the impact on oil and gas infrastructure in the Gulf of Mexico. The other is the *Sperm Whale Seismic Study* which is studying the biology of sperm whales and the possible effects of seismic exploration. MMS is close to receiving the final products for both of these studies.

Every June and December the website is reviewed and website is updated accordingly. Two more studies are going to be announced on the website soon, one includes the North Pacific whales in the Southern Bearing Sea addressing the distribution and abundance of whales and habitat use, and the other one is *A Comparison of the Cost of Energy for the Proposed Cape Wind Energy Project Site and Alternative Sites*, which is an economic model being used in the draft programmatic EIS.

She wanted to thank the Committee for its review of the Worldwide Literature Synthesis. Even though it did not need the highest level of scrutiny, the SC reviewed it to make sure that it covered all of the focused areas and that nothing important was omitted. She added that whenever a study is completed, it goes through another internal review using the ESP Performance Assessment Tool. An additional requirement, although not specifically identified in the bulletin itself, was that the ESP was asked to create a way to measure the effectiveness of the program, i.e., is the information being generated useful, is it timely, did it answer questions that needed to be answered, and how is the information being used in the decision-making processes?

A tool has been developed that evaluates the success of a study and provides a numerical score. This tool is used whenever a study is completed. The form is completed and results are forwarded to OMB every quarter.

She again thanked the Committee for being an instrumental component in making the ESP stronger and stressed her appreciativeness for the extra time members serve on subcommittees and the special review requests that they have handled.

Open Discussion

Dr. Castellini asked Ms. Burkhard to summarize, from the investigator's point of view, which proposals will be funded. For example, if someone submits a proposal to MMS to do one of the things that had been called for, how is this going to be used in terms of whether or not it will be funded? Ms. Burkhard explained that in each RFP, there is a list of criteria for which it will be reviewed. The MMS is looking for a sound approach to developing the information that can be used to help with the MMS's mission goals. One of the primary factors in an RFP focuses on scientific approach. The last thing that the Technical Proposal Evaluation Committee sees is the cost.

Dr. Smith suggested that some fraction of studies be selected and reviewed 5 or maybe 10 years after their completion since right after a project is completed, is not really the best time to judge the impact because what you are really looking for is studies that have an impact over time. And in the scientific field, many times the significance of the study is not recognized on the day of publication. Ms. Burkhard responded that that was a very good point, even though it is above and beyond what was specifically addressed in the OMB requirements. One of the things built into the ESP-PAT system was the ability to update it later. It is realized that very often it takes several years to get a peer review journal published after the MMS reports are completed. Mr. Cimato added that the ESP-PAT is designed to address a certain function; however, Dr. Smith's point is well taken and that certainly will be done.

Dr. Castellini commented that at last year's meeting, he took the message home to Fairbanks which generated a considerable amount of discussion among potential Principal Investigators (PIs) who were trying to respond to MMS's proposals. Once the work is completed has the PI done what was needed? What is it the MMS requires from the review process? Ms. Burkhard explained that the Government and the academic world have very different perspectives and very different cultures. One of the things we try very hard to do when we are developing the RFP is to make sure that there is adequate time to account for all those various things that come up when doing the fieldwork. If we see that you've gotten blown out of the water, you're going to need more time to get the data you need in order to get the answers that you need. So, we do our best to try to build in enough of a buffer to allow for completion of the project review on time.

Dr. Diaz commented that the draft DOI document really doesn't deal with public comment or public review and that the only part the public can play in the peer review is a nomination of qualified reviewers. Ms. Burkhard explained that, according to the OMB bulletin, there is a potential for public comment in the peer review plan.

Dr. Diaz stated that the document really doesn't deal with whether the results of the peer reviews will be public or kept confidential. Ms. Burkhard responded that the bulletin does address whether or not the comments should be made public and how to deal with the publicity of the reviewing panel. In the journal world, peer reviews are frequently conducted and it is unknown who submitted a particular comment. The government tends to prefer to be as absolutely totally transparent and open as possible. So, in cases where it is appropriate, we are encouraged to disclose both the comments and who made them.

Dr. Diaz asked her when she thought the draft DOI document will actually be final and implemented. Ms. Burkhard replied that she did not know; the deadline has long passed and there has been nothing new.

Discipline Breakout Groups Reports

Biology/Ecology Discipline Breakout Group

Members: Drs. Michael Castellini (Chair), Bob Diaz, Michael Fry, Michael Rex, Eugene Shinn, and John Trefry. Also in attendance were Drs. Mike Kosro and Joe Smith.

Pacific OCS Region

Dr. Castellini reported that the Region's focus is towards on-going operations and significant public outreach since there are no leases planned and there is no active decommissioning. Alternative energy is in its early stages.

The members were presented with seven FY 2008 proposals:

- Rocky Intertidal Resources (MARINE),
- looking at juvenile fish assemblages at platforms,
- California Island Symposium (ITM), and
- *Rocky Intertidal Mapping Using Light Imaging Detection and Ranging.*

The members were especially interested in:

- *Geographic Information System Database of Animal and Human Use off Southern California* in coordination with a variety of other agencies that are already doing major work along with that,
- bird and mammal distribution and how that varies with oceanography, and
- polychlorinated biphenyls (PCB) and polycyclic aromatic hydrocarbons (PAH) levels in platform associated fish.

General Observations:

- continues to be a good program done with limited funding due to significant outreach and coordination and
- FY 2008 list follows through on decommissioning efforts and Pacific OCS program shows good continuity.

Specific Recommendations for the MARINE Program:

- **Measuring and reporting rates of change at sites may be more important than static grade.** One of the major conceptual points brought up is the Region wants to be able to produce on a website grades for each, i.e., the grade off of Santa Monica beach is A+ or D- or something and be able to have kids look at beach. The members asked them to think about this a little bit differently and say the grade is not as important as what you have scientifically in the change seen over time. They made a very clear point that they have 10, 15, 20 years worth of data on some of these beaches, and for those involved in climate change and the growing move towards trends data, the change in any particular environment is critical to understand the rates of change. This information would show scientists what the data will look like over time because the rate change will perhaps be more valuable to many organizations and groups and issues than the actual final grade.
- **Statistical expertise is critical in developing indices.** A lot of time was spent talking about existing intertidal indices and with their help provide some suggestions on that in terms of using some of these measures. This is a great project and those were some specific comments on that particular one.
- **Predicting abundance and distribution of seabirds and marine mammals under changing oceanographic conditions.** The members wanted to re-emphasize to do this in real time; short term is extremely difficult and will probably require a multi-year effort in order to be able to get some real trends. Consider serving the pages through the OOS program for cohesive data sets.

- **Investigation of PCB and PAH contaminants in archived samples of platform resident fish.** This is with USGS and was ranked third in terms of funding. If it is possible to get the cooperative funding, the members suggested that this be moved to the top of the funded list because it has a guaranteed profit. If these studies are done, there are going to be numbers, and when and if these numbers are ever needed, and they most likely will be, they will be available.
- **Alternative Energy.** Platform anemometer data need to be archived to assist evaluation of wind resources offshore.

Ms. Mary Elaine Helix clarified that the study on predicting the seabirds and marine mammals, the Region's intent to use multi-years data that has already been collected to model. So, it really is to look at several years of marine mammal and seabird data and use that with the long term physical oceanography data that has been collected and compare those.

Alaska OCS Region

Dr. Castellini explained that there were four studies presented for FY 2008 in biology and ecology:

- COMIDA: aerial surveys of marine mammals,
- COMIDA: Chukchi Sea benthic monitoring,
- NAB: salmon use of area, and
- NAB: nearshore juvenile fish and crab.

The members had general comments:

- good job of planning in face of new and rapidly changing development prospects,
- concern that monitoring program path started in this suite of studies could end up consuming the program limiting future flexibility,
- ranking is reasonable,
- need to define more specific questions to include in the RFP,
- hold technical workshops to focus objectives of baseline and monitoring studies, especially benthic,
- other agencies involved/interested in work need to be specifically identified early on, and
- explore options for alternative funding opportunities utilizing industry contributions.

Gulf of Mexico OCS Region

Proposed studies in FY 2008:

- Seismic activities and marine mammals.
 - seismic profiling
- Deepwater program natural and artificial reefs.
 - emphasizing *Lophelia* coral as common denominator

The Gulf of Mexico OCS Region has been doing great deepwater programs such as the artificial reef program and natural programs and combining them into one big package and using *Lophelia* as the common measure in between those as to how well those different reefs and deepwater environments work for recruiting animals.

Proposed study for FY 2009:

- Shelf edge topography mapping for sensitive biological features. This is a new concept to try to find out where on the shelf edge there are any biological issues that could be coming up.
 - shelf edge topography is forward looking and meshes well. This is a good example of trying to get out in front of the issues.

Deep Water Recommendations:

- Combination of deepwater aspects (*Deepwater Artificial Reef Effect DARE II {DARE II}*), hard bottom, shipwrecks) into one project makes sense, but is risky due to cooperation requirements with other groups. Without commitments for cooperation, the effort could be deeply scaled back. The members recommended the Region keep the Committee informed throughout the process on how these CA's are going because, without them, there is going to be a need to re-evaluate the plan if MMS does not obtain these agreements.
- In terms of the seismic profiling, the members recognize the legal requirements for this work, but given the significant level of research in marine mammal acoustic issues, impact of platform noise on marine mammals, these soundings due to seismic may not be on the cutting edge of science
- at the moment because it is moving more towards sonar and pile driving and a variety of issues along those lines. However, the Marine Mammal Protection Act requires this effort.

Ms. Deborah Epperson wanted to clarify that the seismic activities and marine mammals study specifically hopes to address the mitigation requirements that MMS has through the National Marine Fisheries Service, which is 4 years of observer data from seismic activity in the Gulf. The region is really interested in looking at the data from working seismic levels as part of our mitigation requirements.

Headquarters

There was a presentation from Headquarters, the *Estimation of Marine Productivity in MMS Planning Areas*. The goal for this study is to update previous information on marine productivity for use in next 5-year plan, updating approach to estimate primary productivity, and determine whether secondary and tertiary productivity should be incorporated into estimates and how.

This is a massive concept that is unfortunately vague in its requirement and it is difficult to do a combination of those two things. General comments to this study were:

- investigate the availability of recent data for primary productivity estimates,
- evaluate feasibility of adding secondary productivity to estimates...this is much more difficult, and
- explore potential of using fishery information (e.g., stock assessments) as estimate for marine productivity. Does requirement define “marine productivity”?

Open Discussion

Dr. Smith commented that that there is a perception of marine sound activities. It is not on the cutting edge of science; the real criteria are whether it supports the decision-making needs of the MMS. Dr. Castellini agreed and wanted to clarify that no one seems worried about this subject any longer, but it is a legal requirement. Dr. Smith said that he would not agree with Dr. Castellini’s statement that no one is worried about this any more; that is a misunderstanding of the current political situation.

Physical Oceanography Discipline Breakout Group

Members: Drs. Michael Kosro, Joe Smith, Eugene Shinn, and John Trefry

Alaska OCS Region

Dr. Smith introduced two studies that the Alaska OCS Region is considering.

- *COMIDA - Chemical Monitoring:*
 - definite need for sediment chemical monitoring for environmental decision-making,
 - possible advantages from conducting part of the sampling in each two different years,
 - consider shift in strategy that optimizes use of duplicate sampling sites during year 1 and year 2,
 - Consider use of sediment cores, chemical normalization techniques, and lessons learned during year 1 in year 2 plan.
 - Recommend overlap in chemical and benthic biological sampling sites.
 - ensure coordination between benthic and chemical sampling in COMIDA projects,
 - support use of one vessel for sampling for both programs to maximize synergies,
 - include conductivity/temperature/depth and current profiles at sampling stations to get basic physical condition information, and
 - stay connected with other regional research efforts.
- *North Aleutian Basin Circulation Modeling Phase II:*
 - aimed at improving ability to forecast movement of spilled oil,
 - Phase I (now in procurement) study to provide modeling for pre-leasing oil spill risk analysis, and
 - Phase II model improvements available by 2011 for use in development planning or for next 5-year plan.
 - Recommendations:
 - Considering incompleteness of field programs to collect physical oceanographic data, recommend reduced priority for this project until Phase I completed.
 - Resourcing Phase II work in future planning cycles with a higher priority.

Gulf of Mexico OCS Region

Dr. Smith reported on the following studies:

- Air Quality:

- commendable efforts to respond proactively to anticipated regulatory changes (e.g., reduced ozone criteria),
- FY 2008 Plans for meteorological study aimed at improving modeling of phenomena at air-sea interface,
- concern about apparent lack of plans to include validation efforts in connection with boundary layer data collection study,
- questions about suitability of offshore platforms for measurements of 10-100m altitude range,
- suggest consideration of locating a second station farther offshore, and

- suggest consideration of simultaneous in-air and in-water chemical measurements to validate flux parameterization.
- Physical Oceanography:
 - making good progress on international collaborations,
 - upcoming interactions with Mexico providing potential opportunities,
 - endorse giving MMS staff flexibility to adjust deepwater measurement program to take advantage of synergies of interactions with Mexico programs and to consider recommendations from June workshop, and
 - progress agreement on collaboration with PEMEX deepwater current program but ensure agreements provide for full two-way exchange of information – with optimal access to Mexican data.
 - *Mid-Atlantic Drifter Study:*
 - Support for ambitious program that addresses surface currents and assessment of oil spill risk.
 - Lagrangian sampling depends on flow – fast currents (such as Gulf Stream) limit time domain of data collection and need to be considered.
 - Ensure (perhaps by some direct funding) best use of existing shore based high frequency (HF) surface current mapping and integration with drifter results.
 - *Shore Based HF Radar Coverage* (see separate maps):
 - Recent example of surface current coverage from HF now in place in emerging national network.
 - Maps once per hour.
 - Data collected by various scientists under different funding sources. Need for operational funding (Integrated Ocean Observing System? OOS? Regional OOS? MMS?).
 - Recent example of surface currents from HF now in place (green dots).
 - Maps once per hour.
 - Data collected by various scientists under funding sources.

Open Discussion

Dr. Diaz commented that Dr. Smith made a good point connecting the different chemistry and biology studies. Dr. Smith said it had been discussed that if one of the studies falls off the funding map, consideration should be given as to whether both should be delayed until both can be funded since, in many cases, the chemical measurements may have to be repeated in order to be able to interpret what you get from the biology studies.

Social Economics Discipline Breakout Group

Members: Drs. Tyler Priest, Ralph Brown, and Peter Schweitzer

Dr. Priest reported on the working group members' general recommendations:

- appoint an economist to the Committee and
- if alternative energy becomes viable in the Pacific Region, revive the socioeconomic studies program there.

Gulf of Mexico OCS Region

Shipwrecks:

- *DARE II* – FY 2008.
 - The working group members support follow up to the successful DARE I study.
 - Consider ways to coordinate this study with the Spanish shipwreck study.
- *Investigation for Potential Spanish Shipwrecks in Ultra Deepwater* – FY 2009.

- MMS should maximize opportunities for multidisciplinary collaboration; study has cultural heritage value.
- MMS could approach others (e.g., PBS, National Geographic, Mexican and Spanish governments) for additional support for this study.
- *Continued Monitoring of Industry Compliance, Biological Sampling, and National Register of Historic Places Evaluations of Submerged Sites on the Atlantic Outer Continental Shelf – FY 2009.*
 - MMS should consider conducting similar monitoring in the Gulf of Mexico as well.

Proposed FY 2008 Studies:

- *Ethnic Groups and Enclaves Affected by OCS Activities.*
 - A baseline inventory of ethnic groups and enclaves is needed.
 - Study needs further definition of geographic boundaries and groups in order to keep the study manageable.
 - Study could build on and enhance the shipyard and fabrication study.
 - Set up a matrix to collate the data as an organizing scheme; develop a relational data base that could be used for other purposes to draw linkages that could then be used for other purposes.
 - Develop a basis of comparison to other studies that consider communities either by geopolitical boundaries or labor markets.
- *Deepwater Platforms from Plan to Production*
 - The study has the potential to demonstrate the geographically dispersed economic and employment impacts of deepwater development.
 - The working group members have concerns about feasibility.
 - Preliminary discussions with industry should be pursued before moving forward with this study.
 - The study is primarily descriptive; analytical benefits need to be better defined.
 - How will the two projects be selected and how those chosen relate to others?
- *History of Gulf of Mexico Offshore Petroleum Industry, Phase III: Deepwater Developments.*
 - There is a sense of urgency to complete this study because of the aging population of potential interviewees.
 - The issue of the historical timeframe for the deepwater study and the target group for the interviewees need to be resolved.
 - The study adds to regional and national cultural heritage.
 - The working group members encourage the MMS to consider a Phase IV of this study – the history of the MMS.

Proposed FY 2009 Studies:

- *Alternative Energy Project Scenarios and Local Community Issues.*
 - It is advisable to begin collecting information on capital and labor inputs into alternative energy projects.
 - The methodology of collecting data on community attitudes still needs to be established, i.e., “not in my backyard”.
 - Wait until the geographic areas of interest are defined by the Alternative Energy workshop.
 - Consult with community leaders (e.g., economic development agencies, Chambers of Commerce) to identify possible projects.
- *Gulf Coast Communities and the Offshore Petroleum Industry: A Comparative Community Study.*
 - Consult with community leaders (e.g., economic development agencies, Chambers of Commerce) to identify possible projects.
 - Necessary to conduct social impact assessment research at local-level; can build on many previous studies.
 - Opportunity to combine/integrate with the urban community study.
- *Socioeconomic Effects of the Offshore Petroleum Industry on Urban Communities.*
 - Timeframe of the study needs to be established.
 - Caution about the problem of separating hurricane effects from offshore industry effects is needed.
- *Understanding Current and Projected Gulf OCS Labor Needs.*
 - The working group members have concerns about the feasibility of obtaining company information.

Economic Modeling Studies

MAG-PLAN.

- *Testing New Gulf of Mexico Data, and Mid-Atlantic Oil and Gas Module for MMS Alaska-Gulf of Mexico Modeling Using IMPLAN (Impact Analysis for Planning) (MAG-PLAN)*
- *Testing, Improvement, and New Alaska Data for MAG-PLAN.*

Alaska OCS Region

Proposed FY 2008 Studies:

- *COMIDA: Impact Monitoring for Offshore Subsistence Hunting.*
 - Before an SOW is developed, there needs to be collaboration with local communities in defining impact issues.
 - The study should be a priority because of upcoming Sale 193, and the bureau needs to begin working on environmental impact assessment.
 - Would linking with the Wainwright study help more than following the cANIMIDA model?
 - Can Global Positioning System data be collected for this study since there are more species than the Bowhead whale and spatial information about animals may be proprietary?
- *Subsistence Study for North Aleutian Basin, Phase I.*
 - This is an important study in preparation for the 2009 and 2011 lease sales. There is limited information available and it is a complex area.
- *Aggregate Effects Research and Environmental Mitigation Monitoring of Oil Operations in the Vicinity of Nuiqsut.*
 - General comment: COMIDA subsistence hunting and NAB are important baseline studies, but this study has great potential for informing future studies.
 - The study was strongly endorsed previously because it could inform best practices for mitigation strategies for other regions. The Committee continues to endorse this study. However, it needs the cooperation of other agencies.

Open Discussion

Dr. Castellini noted the differences in scale of OCS activities in the Gulf of Mexico and Alaska and asked whether there are other activities in the Gulf that contribute to impacts or if everything else is just noise. He also asked how one separates OCS impacts from other impacts. Dr. Priest replied that is the big dilemma for developed regions. It is difficult to measure the cumulative impact of offshore activities because the industry has long been established in this region. This is especially true for urban regions like New Orleans and Houston.

Dr. Castellini commented that in Alaska, a major OCS activity off Wainwright is significant but that one might never be able to measure the impacts of three or four more ships being built in Louisiana for non-OCS activities. He said he is trying to figure out how to deal with that.

Dr. Priest said that there are good records about when and where ships are built and that the problem of ships built for OCS vs. non-OCS activities is one of the issues being tackled in the ongoing shipbuilding and fabrication study. He agreed that shipyards are not building vessels purely for the offshore oil and gas industry, but for all sorts of activities. It is noise and it is significant. Shipyard activities affect the whole economy and that really poses difficulties for social scientists.

Dr. Schweitzer commented that there had been a short discussion about the history of OCS development in the Gulf of Mexico and that he thought there had been good discussion about why there isn't something similar for Alaska. The history of the oil and gas industry is fairly well known; but the issue of how many people are affected is not as well understood. Even a small amount of development off the shore of Wainwright will have tremendous effects on small communities.

Mr. Tim Holder explained that from what he's been able to gather from the socioeconomic studies and the state of the economy in the Gulf Region, quite a few rural parishes and counties and many of the parishes in Louisiana have a very high proportion of employment in OCS-related industries. One can't tell variations among the parishes and counties, but even with New Orleans and Houston, significant portions of the economy that are connected with the OCS.

Dr. Priest said that there had been a discussion about the urban effects that came right after Hurricane Katrina when several thousand displaced people from New Orleans relocated to Houston. People started to think that it is not just the local areas adjacent to OCS activities that are affected, but that urban areas are affected as well. He indicated that everyone recognizes that it is going to be very difficult to draw definitive conclusions about the impact of OCS activities on the urban areas. Dr. Brown added that part of the ability to draw conclusions about OCS impacts on urban areas will be creating a methodology that will allow us to assess urban areas. The impact assessment on communities has predominantly been in rural areas partially because the assumption has always been that a massive amount of people moving into a small town overly burdens its infrastructure and that has all types of cascading effects. There have been some preliminary studies that go back to the 1970s on Houston and some other areas, that rely far more on historical analysis and the social impact analysis, but a study on the impacts of OCS activities on urban areas would actually be rather pioneering if not in what it finds, but what it creates in terms of a methodological approach to try to address something much larger than the rural areas.

Dr. Brown added that another part of the discussion was additional connections to the other disciplines, using the Spanish shipwreck study as an example. One of the arguments was to go back and look at very well documented archival data from where these Spanish ships were actually sailing and if it could be mapped out over time, then there would be an opportunity to perhaps look at shifts in current patterns over time. Perhaps that could even lead to a discussion about climate changes over time. If we could further document where we think the ships might be on the bottom of the ocean, and if their location matched nicely with the archival data of when they were sailing, we might actually get a pretty good sense over a couple hundred year period of time where those shipping lanes were, based on the currents.

Dr. Smith commented that shipwrecks, especially the more modern ones, are good laboratory sites to understand the long term effects of putting large underwater structures on the seabed, which is one of the concerns regarding decommissioning. Also, with respect to the deepwater platform and plan production study, he agreed that information will be difficult to get. Certainly, discussions with potential companies that could provide information for the study are the first order of business. He stated that his first thought was the potential reaction he would get from his boss when his boss was presented with the list of information that would need to be released for this study. Dr. Priest agreed and stated he understood that there have been some discussions with the American Petroleum Institute about coordinating efforts. While that was reassuring, it is still unclear how easy it would be to gather the information.

Open Discussion of Discipline Breakout Group Reports

Dr. Brown said as a newcomer to the Committee, he was curious if there has been any kind of discussion about assessing the linkages across these data over time that have already been gathered and done in a very deliberate and systematic fashion. Dr. Diaz replied that there were several studies proposed in the package from different regions to do some of this, looking at past data, particularly the physical oceanography groups. Dr. Brown suggested that there may be some merit in identifying indicators that are recognizable and valid that would allow a very direct accountability over time as these studies progress. If you can measure a concept or a phenomena with a variety of different ways, and there are one or two ways that everyone could agree upon, it would certainly make for a far better comparability over time.

Dr. Castellini stated that one of the issues he deals with is marine mammals and acoustics, and that he wanted to re-visit and clarify for the Committee the discussion on the Gulf of Mexico retrospective study on marine mammals and acoustic. During the afternoon break, he said that there was a discussion of how much seismic activity can or cannot impact marine mammals, and he wanted to make sure that when the supplemental report is written on that particular case, it needs to be stressed that we were exclusively discussing: a) the Gulf of Mexico, and b) the suite of animals in the Gulf of Mexico primarily whales that are called odontoseis, toothed whales that have a different type of acoustic world available to them than do the baleen whales. Each has different acoustic environments that they live with and he wanted to make sure that discussions are confined to the particular case of the Gulf. This does not imply that other discussions about impact and seismic activities on other marine mammals is not important, but are unrelated issues in this case. There was some concern that seismic activities impact these animals, impacts may be different in different regions, and different animals have different responses. In the particular case of the Gulf of Mexico and with this particular study, he wanted to make certain that this was understood.

Dr. Diaz gave a brief summary of the key points that came out of the regions and the disciplines:

- 1) There just isn't enough funding to do everything that needs to be done in terms of the MMS mission. The MMS needs to look at other options that can be followed for getting additional funding from other agencies.

- 2) Related to funding, there is a need to get the best synergy in terms of science and cost savings in terms of combining field work for the disciplines - the most obvious being chemistry and biology and for sampling designs to be efficiently developed so that the efficiency translates over to efficiency in spending of dollars.
- 3) The affect of climate and how that is going to interact with oil and gas activities in the planning areas, in both positive and negative ways needs to be considered.
- 4) There is a movement for some of the studies to go into broader ecosystem base looking at management of the biological resources, physics, social science, and political economics as well.
- 5) Seismic issues. The affect of seismic or other sound on marine mammals is not going to diminish in the future.
- 6) The connection of the MMS studies with other studies that are being funded in these same or adjacent areas need to be incorporated. A lot of money is being spent in the Gulf and other oceans by other Federal agencies and the MMS needs to take advantage of any information that is within the planning areas or applicable to the planning areas. Also, MMS needs to keep in mind all of the work that it has done in the past and look at those common factors that have been measured several times in the same areas.

Dr. Smith commented that during the presentation on alternative energy, the element of working to achieve public acceptance of these facilities was missing and he believes that is going to be a key item that will need to be addressed. Dr. Brown agreed and added in particular regard to the Pacific, there is no socioeconomic presence at the moment and he believes that it will be the biggest issue in terms of selling these structures and their presence offshore. Dr. Priest echoed Dr. Brown's comment and said that he wants to see a little bit more specific methodology about how to measure local attitudes toward alternate energy. Dr. Piltz, in speaking for Ms. Bornholdt, said that the program doesn't want to get out ahead of the public's opinion and is certainly actively and pro-actively seeking public input through a variety of workshops that have been held. He spoke only to the future potential for alternative energy on the Pacific Coast stating that, as the DOI's Co-Lead on the West Coast Alliance, he has been charged to make sure that all three states on the Pacific Coast work together to develop an action plan that will ensure that there is public participation and that MMS is not ahead of what the public and the States want to see with regard to alternative energy, the options, and the information needs from public concerns. He added that Dr. Maurice Hill, Pacific OCS Region, is working closely with State representatives in putting together a North West Task Force that would aid in addressing this issue.

Dr. Diaz asked Mr. Cimato to review both the recommendations by and responses to the Committee from last year. Mr. Cimato reported that one issue, the alternative energy program, has already been discussed.

Another issue was again to consider archiving MMS supported data in a manner that would keep it accessible and that MMS should keep and manage its own data archive. Mr. Cimato said that MMS data, policies, and response to this issue was that we will make no pretense to replicate in any way the service that National Oceanographic Data Center (NODC) provides for the archiving of federal research data. What we do is make sure that our data becomes available through publications that we sponsor, through posting information on web sites, and through the data mining efforts that we sponsor.

Dr. Trefry commented that he feels MMS has a long way to go in getting all of the data in an accessible form. It is recognized that some information is sensitive; however, there is a continuance to have a dilemma of the massive amounts of data that MMS has generated. He recommended that MMS try again to see what can be done. Going back and looking at 20-30 years of data that are out there, in some cases, is difficult. Mr. Cimato agreed and added that he'd raise the question about the value of older data sets. The analytical methodology has evolved tremendously over the decades; however, he did agree that there is a need to look at old data, but there are funding constraints. He added that solutions are welcome. Dr. Diaz mentioned that he believes some of the regions are producing CDs of reports and also making them available on the web. He said that is a really good first step from here into the future. Dr. Piltz, as an example, reported that the MARINE program has a public web site where there are some data and then there's a password-protected web site where there are other data. Dr. Trefry agreed that the last 10 years has seen incredible improvement, but said that he had meant all of the data. Dr. Kosro stated that he has been very impressed with MMS's use of the web for distributing reports and feels it is a tremendous service. He suggested that the data on the MMS website be linked to data storage systems such as NODC. Mr. Cimato agreed and said that was a very good idea. Dr. Smith said that the NODC is a black hole and it is very difficult for someone who doesn't know exactly where to look to find something in that black hole. He suggested there be a link on the cover of the report or something inside the environmental study information.

Mr. Cimato said the next recommendation dealt with the DOI LNG guidelines for peer review. He stated that Ms. Burkhard had covered this topic and it is moving along.

The next recommendation of the Committee encouraged the MMS to seek additional funding for our various programs. Mr. Cimato said there is certainly more that can be done to have a more complete program with some budget enhancing, but we do the best we can with what we have. Certainly, he said, the NOPP engagement that MMS has had over the last 5, 6, or 7 years has been one helpful component, as with the contribution from USGS Biological Resources Division (BRD) helps us get our job done. We work very hard and continue to work with USGS BRD to ensure that they will continue to provide us with some of the work that we need. The MMS is also moving in a direction to talk about the possibility of changing the appropriation language so that MMS could receive donations and contributions from private entities to further some of the work that we are trying to accomplish. He explained that the intent right now is to attempt to modify our FY 2008 appropriation language to clarify whether or not MMS can receive contributions from the outside. If it goes forward, that will be a new way for us to enhance the budget and do more of the things that we believe would be useful for the program. This year, MMS began to use grants.gov as a portal and it did, indeed, broaden the reach of our program.

We started receiving phone calls from universities up and down the coast expressing interest, wanting to know more about our program and how those universities could get more involved. Dr. Trefry commented that he applauds MMS on its progress and agrees that grants.gov is a great tool. He would like something done similar to the COMIDA project where each item is identified separately so that it may attract more people to write a proposal on a separate section. Mr. Cimato agreed and appreciated his comment.

The next comment referenced activity with the NOPP and that it serves as an encouragement to continue using that organization. It has demonstrated to be a fair and very good plan, and it has been attributable in many ways to the vision and leadership that Dr. Kendall has shown us.

The next comment is encouragement to provide baseline data over entire regions. He pointed out that MMS has responded to this with the activities that have been developing in Alaska, particularly the NAB and the Chukchi Sea areas. As activities in the Atlantic Region are developed, a similar approach will be used.

Acoustic and seismic effects, which have been discussed over the last day or two, were identified as continuing issues and our response to that comment identifies the work that has been done with Swiss in the past as well as the NOPP work that we are going to be co-sponsoring this year. The final comment dealt with developments in the Arctic and Gulf of Mexico regions relative to how climate change, knowledge, and data collection activities will come together. Mr. Cimato said that the DOI recognizes that all of the activities MMS is involved in are being reviewed to take into account and consider what shifts in management policies, what shifts in land use policies, what new research needs to be re-directed or focused to take into account and address the climate change issues; it is definitely something that is receiving the highest level of attention through the Interior and within MMS.

Public Comment

There was no public comment during the public comment period.

Committee Business

The committee then went into its business session and developed the following acknowledgments and recommendations for the Director of MMS:

- The committee unanimously expressed its overall high regard for the personnel and programs of Headquarters and the Regions. We continue to appreciate the materials provided to us before the meeting, including the clear and concise responses to the recommendations made the previous year.
- We commend MMS for significant progress on international work with Mexico. This cooperation strengthens ESP studies and increases the visibility of MMS contributions and their science value.
- The high level of communication within MMS, particularly at the regional level, has led to solid cooperation and information flow. The Regions are to be commended in their continuing cooperative efforts.
- We support the effort MMS has spent on keeping its Internet site current and informative. This has positive results as the Internet is a critical portal for communicating with scientists, the public, and policy makers.
- The Gulf of Mexico Region deserves special recognition for the work its dedicated staff put in to recover so quickly after the 2005 hurricane season and maintain its high level of activity.

As a result of this year's deliberations, the following recommendations emerged:

- 1) **Data availability and archiving.** Continue working to make MMS data available via MMS web sites and links to data storage systems (e.g. NODC). This will require continual effort and innovation as the magnitude of data increases; however, it is also of great importance to allow integrated research across disciplines as ecosystem modeling and climate change become critical areas of investigation.
- 2) **Collaborative funding.** Support for continued progress and success in collaborative funding across agencies (e.g. NOPP). Also suggest that methods for matched funding and cross funding with Agency-Industry programs be expanded. Explore innovative pathways for industry to contribute to research efforts.
- 3) **Rapid response to alternative energy research needs.** Research in alternative energy is a nascent field and is driven by rapidly changing business opportunities and economics. The MMS research program has evolved to work best with oil and gas, which is a mature industry that does not move as quickly and does not have as many smaller entities trying to break into the area of energy production. The MMS research program needs a rapid response component to research concepts and permits in alternative energy in order to keep up with this field.
- 4) **Ecosystem based research and enhanced interactions between MMS Regions.** The MMS should continue to support and enhance ecosystem based research approaches in order to better understand scientific issues in their geographical regions. Regions are moving in this direction and this research needs to be supported, reinforced, and rewarded. It is important that MMS regional programs increase interactions with one another to enhance transferable research lessons, findings, and data.
- 5) **Re-establish sand and gravel research program.** The Committee was concerned that while the regulatory aspects of permitting for sand and gravel continue, research oversight has been significantly reduced. Consequently, there is minimal cohesive and external review oversight of the environmental impacts of sand and gravel activities. This program should be returned to MMS ESP with adequate funding for its mission.

There is growing concern about the relationships of OCS activities and wetland submergence in the Gulf of Mexico Region. The Committee requests a focused presentation on this issue at its spring 2008 meeting.

Dates and Locations for the Next Meeting

After discussion, Dr. Diaz reported that the Committee would like the meeting next year in April in Anchorage since there is a lot of activity there. Mr. Cimato concurred saying it might be a good opportunity to see how some of the other programs are progressing. Dr. Castellini mentioned that the North Pacific Research Board has offices in Anchorage and the Marine Advisory Program through the Alaska Sea Grant has workshops on topics such as the Ocean Basin. He thought the Committee may be interested in a report from them. He added that there is so much centered in Anchorage that, not only with the industry side or from different agencies involved in the research, it might be interesting to hear reports from them. Mr. Cimato said that it would also give the University of Alaska Fairbanks an opportunity to give an update to the Committee on its CMI.

Dr. Diaz adjourned the meeting.

ACRONYMS

ADCP	Acoustic Doppler Current Profile
ANIMIDA	Arctic Nearshore Impact Monitoring in Development Area
Bbl(s)	barrels
BRD	Biological Resources Division
CIAP	Coastal Impact Assistance Program
CA	Cooperative Agreement
OMIDA	Chukchi Offshore Monitoring in Drilling Area
CMI	Coastal Marine Institute
DOI	Department of the Interior
EA	Environmental Assessment
EIS	Environmental Impact Statement
ESP	Environmental Studies Program
EPA	Environmental Protection Agency
EPAct	Energy Policy Act
FWS	Fish and Wildlife Service
FY	Fiscal Year
HF	high frequency
MPLAN	Impact Analysis for Planning
ITM	Information Transfer Meeting
LNG	Liquefied Natural Gas
LSU	Louisiana State University
MAG-PLAN	MMS Alaska-Gulf of Mexico Modeling Using IMPLAN
MARINe	Multi-Agency Rocky Intertidal Network
MMS	Minerals Management Service
MOA	Memorandum of Agreement
MODU	Mobile Drilling Units
NAB	North Aleutian Basin
NOAA	National Oceanographic and Atmospheric Administration
NODC	National Oceanographic Data Center
NOPP	National Oceanographic Partnership Program
NTL	Notice to Lessees

OCS	Outer Continental Shelf
OCSLA	OCS Lands Act
OMB	Office of Management and Budget
OMM	Offshore Minerals Management
ONR	Office of Naval Research
OOS	Ocean Observing System
PAH	polycyclic aromatic hydrocarbons
PCB	polychlorinated biphenyls
PEMEX	Petroleos Mexicanos
PI	Principal Investigator
RFP	Request for Proposal
ROV	remotely operated vehicles
SC	Scientific Committee
SCARE	Subcommittee on Alternative and Renewable Energy
SOW	Statement of work
tcf	trillion cubic feet
USCB	University of California Santa Barbara
U.S.	United States
USGS	U. S. Geological Survey
FY	fiscal year

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OCS SCIENTIFIC COMMITTEE

MEMBERSHIP INFORMATION



Ralph Browning Brown

Dr. Brown is a Professor and Associate Chair with the Department of Sociology at Brigham Young University and his interests include: community satisfaction and attachment, including community-level impacts due to boom-growth most often associated with large-scale economic development; natural resource-human interface; persistent rural poverty and subsistence lifestyles, and effects of mass consumer economy on rural communities and their residents. He specializes in Social Impact Assessment and is versed in both quantitative and qualitative data collection and analysis techniques.

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Discipline: Socioeconomics (Development and Social Change;
Social Impact Assessment)

Appointed:
Eligible for Reappointment:

April 28, 2006
April 28, 2008; April 28, 2010

Michael Angelo Castellini

Dr. Castellini is the Associate Dean at the School of Fisheries and Ocean Sciences, University of Alaska Fairbanks. His research focuses on many different aspects of marine mammal biology. Some of these include nutritional physiology of harbor seals and Steller sea lions in Alaska as related to their population declines and to the survival of seal and sea lion pups. Other projects include studies on lipid metabolism in marine mammals, nitrogen and protein requirements, population patterns as seen in blood chemistry profiles and stable isotope patterns in tissues. These programs are both field based from the Arctic to the Antarctic and conducted in collaboration with marine laboratories throughout North America.

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Discipline: Marine Biology (Marine Mammals)

Appointed:	December 18, 2001
Appointed Under New Charter:	March 30, 2004
Reappointed:	April 28, 2006

James M. Coleman

Dr. Coleman is a Boyd Professor for the Coastal Studies Institute and recently served as Interim Vice-Chancellor for Research and Graduate Studies at Louisiana State University. He started his professional career as a graduate student at Coastal Studies Institute, LSU, and eventually serving as director of CSI, chairman of Geology and Geophysics, head of the School of Geoscience, and interim dean of Basic Sciences before being named Executive Vice-Chancellor in 1989. He has conducted worldwide research on deltaic sedimentation, riverine processes, marine geology, shallow structure of shelf sediments, and muddy coasts. He serves on numerous local, state, and national committees and is presently a member of the Ocean Studies Board, National Research Council, and has recently been appointed to the U.S. Commission on Ocean Policy.

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Discipline: Oceanography/Geology (Use of Science in Oil and Gas Decision-Making)

Appointed:	October 1, 1993
Reappointed:	June 7, 1995, October 27, 1997
Appointed Discretionary Member:	October 25, 2000
Reappointed:	January 6, 2003
Appointed Under New Charter:	March 30, 2004
Reappointed:	April 28, 2006
Eligible for Reappointment:	April 28, 2008

Robert J. Diaz

Dr. Diaz is a Professor of Marine Sciences at the College of William and Mary. His research interests center around understanding trophic dynamics and the functional importance of production in ecosystems, benthic boundary layer processes, and organism-habitat interactions, and how perturbations of these processes influence energy flow and population dynamics. Recently he has focused on global impacts of hypoxia and anoxia on benthic and fisheries resources. He also studies organism-habitat interactions to predict effects of sand dredging on fish and invertebrate communities. He developed methods for estimating the relative resource value of benthic habitat types for the dual purpose of quantifying energy flow between habitats and for developing environmentally sound management strategies. In addition, he is also interested in the application of the statistical and numerical methods to biological data and in the ecology and taxonomy of estuarine and marine invertebrates.

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Discipline: Biological Sciences (Ecology re. Sand Resources)

Appointed:	December 18, 2001
Appointed Under New Charter:	March 30, 2004
Reappointed:	April 28, 2006

Michael D. Fry

Dr. Fry is the Director of the Pesticides and Birds Program and is an avian toxicologist with research interests in the effects of pollutants and pesticides on ecosystems, with a focus on wild birds. He received his doctorate at the University of California-Davis, where he then went on to be a research physiologist in the Department of Avian/Animal Sciences for 23 years before joining Stratus Consulting in 2003. Dr. Fry has been a panel member for the National Academy of Sciences on hormone active chemicals in the environment and has participated in toxicology reviews and international symposia for the Organization for Economic Cooperation and Development (OECD) and for the United Nations University in Japan. He has been a committee member for EPA and OECD in revising avian toxicity test methods and was a member of the EPA Ecological Committee for Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) Risk Assessment Methods (ECOFRAM).

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Discipline: Ecology (Avian Biology & Alternative Use)

Appointed:	April 28, 2006
Eligible for Reappointment:	April 28, 2008; April 28, 2010

Richard G. Hildreth

Dr. Hildreth is the author of three casebooks and many other publications on ocean and coastal law. He has consulted frequently with federal and state coastal management agencies in the U.S. and Australia and with Pacific Island governments on environmental legal matters. Dr. Hildreth served as the University of Queensland Law Faculty's 50th Anniversary Visiting Fellow. He has served on the National Research Council's Non-native Oysters and Coastal Ocean Committees, the Pacific Northwest Regional Marine Research Board, and the editorial advisory boards of the journals Coastal Management and Ocean Development and International Law. Dr. Hildreth practiced business law with Steinhart & Falconer in San Francisco before teaching law.

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Discipline: Socioeconomics (Ocean & Coastal Law; Law of the Sea)

Appointed:	January 1, 2003
Appointed Under New Charter:	March 30, 2004
Reappointed:	April 28, 2006
Eligible for Reappointment:	April 28, 2008

P. Michael Kosro

Dr. Kosro is a coastal physical oceanographer, and an Associate Professor of Oceanography at Oregon State University. His group has installed and operates a large array of HF current mapping systems to continuously measure the time-varying surface circulation over the entire Oregon coast, while also using conventional moored and shipborne tools. Recent studies include interannual variability of the circulation, mesoscale features of the upwelling circulation, California Current and undercurrent, and spatial structure of tidal flows.

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Discipline: Physical Oceanography (Shelf-deep Sea Exchange/
Pacific Coast)

Appointed:	January 1, 2003
Appointed Under New Charter:	March 30, 2004
Reappointed:	April 28, 2006
Eligible for Reappointment:	April 28, 2008

Richard "Tyler" Priest

Dr. Priest is Clinical Professor and Director of Global Studies at the C.T. Bauer College of Business, University of Houston, and faculty affiliate of the Public History Program at the University of Houston. He is also a member of the Technology Pioneer Committee for the Offshore Energy Center (OEC) in Houston. He received his Ph.D. in history from the University of Wisconsin-Madison. He specializes in the history of offshore oil and gas in the Gulf of Mexico and is currently working on a study of the evolution of offshore exploration technology and leasing. He has served as chief historian on a Shell Oil corporate history project and chief historian for an MMS project to document the history of the offshore oil industry in the Gulf of Mexico (OCS Study MMS 2004-049). He has authored books on the offshore operations of Shell Oil and Brown & Root.

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Discipline: Socioeconomics (Historian-Social/Economic Effects
and the Oil and Gas Industry)

Appointed:	April 28, 2006
Eligible for Reappointment:	April 28, 2008; April 28, 2010

Michael A. Rex

Dr. Rex's research is centered on the ecology and evolution of deep-sea benthic communities. It includes analyses of bathymetric and global-scale patterns of biodiversity and their causes. We are using satellite imagery to examine the relationship of surface production to community structure in the deep sea at different temporal and spatial scales. Geographic variation in body size of mollusks is being explored to study adaptation to the deep-sea environment. Multivariate analyses of shell architecture and mitochondrial DNA are being employed to study patterns of population differentiation in deep-sea mollusks. Adaptive radiation and taxon cycles are being investigated by documenting patterns of taxonomic diversity. A major long-term research goal is to synthesize patterns of distribution, geographic variation, taxonomic composition and life histories to formulate a model of evolution in deep-sea invertebrates.

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Discipline: Biology (Deep-Sea Ecology)

Appointed:	December 18, 2001
Appointed Under New Charter:	March 30, 2004
Reappointed:	April 28, 2006

Peter Paul Schweitzer

Dr. Schweitzer was born and raised in Austria where he became fascinated with the mysterious country that no longer exists, the Soviet Union, during the 1980s. A student exchange program enabled him to study in Leningrad for one academic year in 1986/87 and to begin ethnohistoric research about the Chukchi Peninsula in the Russian Far East, which led to Ph.D. degree awarded by the University of Vienna in 1990. Since 1990, he has had several opportunities for longer and shorter field trips to Chukotka and, more recently, to the Republic of Sakha (Yakutia). Since 1992, he has been conducting fieldwork in various communities on the Seward Peninsula in Alaska. He joined the faculty of the Department of Anthropology at UAF in 1991. His topical interests, in addition to the above-mentioned historical inquiries, encompass social organization (kinship, gender, and politics), hunter-gatherer studies, the history of anthropology, transnationalism and other forms of interethnic contact, as well as practices and ideologies of colonialism and their local impacts.

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Discipline: Socioeconomics (Anthropology and Subsistence)

Appointed:	April 28, 2006
Eligible for Reappointment:	April 28, 2008; April 28, 2010

Mary I. Scranton

Dr. Scranton received a BA in Chemistry from Mount Holyoke College and a PhD. in Oceanography from the Woods Hole Oceanographic Institution/MIT Joint Program in Oceanography. Her dissertation was on the marine geochemistry of methane. Following her dissertation work, she spent 2 years as a National Academy of Sciences/National Research Council Postdoctoral Fellow at the Naval Research Lab in Washington, D.C., working on analytical and geochemical aspects of hydrogen gas distributions in the ocean and atmosphere. Since 1979, she has been at the Marine Sciences Research Center of Stony Brook University. In recent years she has been interested in the factors controlling the cycling of organic compounds in sediments and in the water column, primarily as a part of the CARIACO (Carbon Retention in a Colored Ocean) program, a study of carbon cycling in the Cariaco Basin, Venezuela. She also maintained her long-standing interest in methane geochemistry and is investigating the role of seeps and vents, and possibly of destabilizing gas hydrates, in controlling water-column methane concentrations near the US North-East continental shelf.

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Discipline: Chemical Oceanography (Geochemistry/Hydrates)

Appointed:	January 1, 2003
Appointed Under New Charter:	March 30, 2004
Reappointed:	April 28, 2006
Eligible for Reappointment:	April 28, 2008

Eugene A. Shinn

Dr. Shinn received a BS in Zoology from the University of Miami in 1957. In 1958 he joined the Shell Development Company Field Station in Coral Gables, Florida, as a laboratory/diving technician which specialized in modern carbonate sedimentation and limestone alteration. Dr. Shinn has had an extensive career not only with Shell Development Company, but also with Royal Dutch Shell and the Environmental Affairs Department at Shell's Head Office in Houston where he advised the company on environmental issues. In 1974, Dr. Shinn, as a senior geologist, left Shell to set up the 4-person USGS research field station at Fisher Island, Florida, where he led the field station's research for 15 years where the mission was to do research on sedimentation and alteration of modern carbonates, especially coral reefs of the Florida Keys. With funding from USGS conservation division, which later became MMS, Dr. Shinn supported a Texas A&M doctoral dissertation on the effects of drill mud on corals. In 1989, he transferred to St. Petersburg, Florida, where he worked as part of the USGS Coastal Program and initiated a study of sewage contamination and groundwater movement and seepage in the Florida Keys. After 31 years of service, Dr. Shinn retired as a geologist from the USGS on January 3, 2006, and is now located at the University of South Florida Marine Research Center at St. Petersburg, Florida, where his title is Courtesy Professor.

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Discipline: Zoology/Geology (Fate & Effects; Government & Industry
Science)

Appointed:	April 28, 2006
Eligible for Reappointment:	April 28, 2008; April 28, 2010

Joseph Patrick Smith

Dr. Smith is group leader for environmental technology research at ExxonMobil Upstream Research Company. He holds a Ph.D. in physical chemistry from the University of California at Berkeley (1978) and a B.S. in chemistry from the University of Rochester (1972). He joined Exxon Production Research Company in 1981 and has been active in research on the environmental aspects of offshore oil and gas operations since 1990. His research interests include numerical modeling of offshore discharges, the environmental fate and effects of drilling and production discharges, and the environmental effects of seawater usage in liquefied natural gas processing. He is the chairman of the Offshore Operators Committee (OOC) Environmental Sciences Subcommittee and has also served on the steering groups for many joint industry environmental studies sponsored by organizations such as OOC, the American Petroleum Institute, and the International Association of Oil and Gas Producers.

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Discipline: Physical Oceanography (Oil and Gas Industry Use of Science)

Appointed:	January 1, 2003
Appointed Under New Charter:	March 30, 2004
Reappointed:	April 28, 2006
Eligible for Reappointment:	April 28, 2008

Denise M. Stephenson-Hawk

Dr. Stephenson Hawk earned her Ph.D. in Geophysical Fluid Dynamics from Princeton University in 1986. She also earned her M.A. degree in geophysical fluid dynamics from Princeton University; completed her M.S. degree in environmental modeling from The George Washington University; and B.A. degree in mathematics from Spelman College. She is Associate Director of the National Center for Atmospheric Research (NCAR) in Boulder, Colorado, and Director of the NCAR Societal-Environmental Research and Education Laboratory. Also, she is Chairman and CEO of The Stephenson Group, LLC, a strategic planning and education consulting firm based in Atlanta, Georgia. Dr. Stephenson Hawk has served as an atmospheric scientist for the National Aeronautics and Space Administration (NASA); ocean systems analyst in areas of underwater acoustics for AT&T Bell Laboratories; and as provost, department chair and professor within academia. She currently serves on the National Academy of Science Review Committee on the Joint Subcommittee on Ocean Science and Technology Research Priority Plan; steering committee for the National Climate and Weather Commission; and advisory board for the Southeast Center for Ocean Science Education Excellence. Dr. Stephenson Hawk is a former member of the science advisory boards for the National Oceanic and Atmospheric Administration, NASA, National Science Foundation, and the Ocean Research Advisory Panel for the National Oceanographic Partnership Program, as well as myriad other committees throughout academia, government, and business.

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Discipline: Atmospheric and Oceanic Sciences (Education,
Decision-Making, IOOS)

Appointed:	December 18, 2001
Appointed Under New Charter:	March 30, 2004
Reappointment:	April 28, 2006

John H. Trefry

Dr. Trefry is a Professor of Marine & Environmental Sciences at Florida Institute of Technology. He holds a Ph.D. in Chemical Oceanography from Texas A&M University. His research activities focus on the concentrations and cycling of trace metals in rivers, estuaries, oceans and deep-sea hydrothermal vents. Trace metals are studied for their natural value and for their potential as pollutants. Dr. Trefry's research activities are carried out in a wide variety of geographical settings including the Pacific and Atlantic Oceans, the Alaskan Arctic, the Gulf of Mexico and the Indian River Lagoon, Florida. He also has been active in studies of environmental issues related to offshore oil exploration and production in the Gulf of Mexico, the Beaufort Sea, the Sea of Okhotsk and other locations. He presently serves as an Associate Editor of the journal *Marine Chemistry* and is President of the Florida Academy of Sciences.

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Discipline: Chemical Oceanographer/Biology (Chemical Contaminants)

Appointed:	January 1, 2003
Appointed Under New Charter:	March 30, 2004
Reappointed:	April 28, 2006
Eligible for Reappointment:	April 28, 2008

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DISCIPLINE BREAKOUT GROUPS

Ecology/Biology	Physical Oceanography	Socioeconomics
Michael Castellini	Jim Coleman	Ralph Brown
Robert Diaz	Denise S-Hawk	Richard Hildreth
D. Michael Fry	Mike Kosro	Tyler Priest
Michael Rex	Mary Scranton	Peter Schweitzer
Gene Shinn	Joe Smith	
John Trefry		

DEEPWATER SUBCOMMITTEE MEMBERS

Jim Coleman	Will Schroeder
Mike Rex	Joe Smith - Chair
Mike Kosro	Tyler Priest

ARCTIC SUBCOMMITTEE MEMBERS

Michael Castellini - Chair	Mike Fry
Peter Schweitzer	Lynda Shapiro
Duane Gill	Will Schroeder

MARINE MINERALS SUBCOMMITTEE MEMBERS

Jim Coleman	John Trefry - Chair
Bob Diaz	Denise Stephenson-Hawk
Dick Hildreth	

DECOMMISSIONING SUBCOMMITTEE MEMBERS

Richard Hildreth	Joe Smith
Mike Kosro	Gene Shinn
Mary Scranton - Chair	

ALTERNATIVE AND RENEWABLE ENERGY SUBCOMMITTEE MEMBERS

Mike Fry - Temp. Chair	Lynda Shapiro
Dick Hildreth	Gene Shinn
Mary Scranton	

MINERALS MANAGEMENT SERVICE



Speakers

Maureen Bornholdt

Ms. Bornholdt, Program Manager for the Renewable Energy/Alternate Use Program, is responsible for developing the new program and regulatory regime covering outer continental shelf alternate energy resources for the Minerals Management Service. Prior to this appointment, she served as the Marine Minerals Program Manager. In that capacity Ms. Bornholdt managed the development of OCS marine minerals resources and oversaw leasing of Federal sand for use in repairing damaged shorelines and protecting critical military installations, National parklands, and billions of dollars of infrastructure. She has extensive experience in environmental regulation and compliance having worked offshore oil and gas issues for the Department of the Interior since 1983. Ms. Bornholdt has served as the MMS's technical expert on Coastal Zone Management and National Environmental Policy Acts and as the program analyst covering offshore environmental and regulatory issues for the Assistant Secretary for Land and Minerals Management.

Elizabeth Burkhard

Ms. Burkhard is a Marine Biologist in the MMS Environmental Sciences Branch. She holds a B.S. degree in Biology from the College of William and Mary and an M.S. degree in Marine Science from the University of South Florida, St. Petersburg. She Burkhard works with developing alternative energy information needs for the Studies Program and is involved in program policy. She also serves on the interagency committee to implement the Executive Order on Marine Protected Areas.

James Cimato

Mr. Cimato is a Senior Staff Analyst currently Acting Environmental Sciences Branch Chief and Executive Secretary of the OCS Scientific Committee. He is responsible for developing MMS-wide policies and procedures governing the formulation and implementation of the Environmental Studies Program. As an Oceanographer within the branch, Mr. Cimato coordinates many of the fates and effects studies within MMS and the Coastal Marine Institute program. Mr. Cimato worked in the private sector in oil pollution prevention research before joining the Offshore Program in 1975.

Victor G. Carrillo

A native of Abilene, Texas, Mr. Carrillo joined the Texas Railroad Commission in February 2003 when Governor Rick Perry appointed him to fill the unexpired term of Tony Garza who became U.S. Ambassador to Mexico. Mr. Carrillo served as Chairman of the agency from September 2003 through September 2005. He was also Chairman of the Governor's Texas Energy Planning Council that created a comprehensive energy plan for the State of Texas. In November, 2004, Commissioner Carrillo received almost four million votes and won statewide election for Railroad Commissioner and took office for a six-year term beginning in January, 2005. Much of Mr. Carrillo's education and

professional experience relate to oil and gas exploration and production. He has a B.S. degree in geology from Hardin-Simmons University and a M.S. degree in geology from Baylor University. Mr. Carrillo was appointed by the U.S. Secretary of the Interior to serve as Texas' representative on the Outer Continental Shelf Policy Committee, which advises the Secretary of the Interior by reviewing and commenting on all aspects of leasing, exploration, development, and protection of OCS lands.

Byron Griffith

Mr. Griffith is Director of Environmental Protection Agency's (EPA) Gulf of Mexico Program (GMP). The appointment began in July 2004. He has been with the Program since 1991 and was appointed as Deputy Director in the fall of 1995. He received a Business Degree from the University of Southern Mississippi and began his EPA career in 1979. The GMP, located at Stennis Space Center in Mississippi, is a partnership of representatives from State, Federal, and local government agencies, business, environmental, agricultural, and citizens groups working together to protect the natural resources and ensure the economic vitality of the Gulf region. Mr. Griffith was appointed Co-lead of the Gulf of Mexico Alliance by the White House Office of Environmental Quality and in this role coordinates the activities of the Alliance Federal Workgroup with the five Gulf States. He serves as Co-chair of Coastal America's Gulf Regional Implementation Team and is a member of the Gulf of Mexico Regional Panel on Aquatic Nuisance Species (ANS) and the Mississippi River Basin Panel on ANS.

Lars Herbst

Mr. Lars Herbst is the Acting Regional Director for the Gulf of Mexico OCS Region of Minerals Management Service. As the Acting Regional Director, Mr. Herbst manages the leasing of the OCS lands for oil, gas, and other mineral development, and supervises the regulation of operations and protection of the environment on those leases which involve 4,000 platforms. This area covers the five Gulf Coast States. He manages a staff of 550, comprised of geologists, geophysicists, petroleum engineers, biologists, and environmental scientists.

Before serving as Acting Regional Director Mr. Herbst was appointed Regional Supervisor for Field Operations. The Field Operations office evaluates and approves operator proposals to install and modify platforms and pipelines on Outer Continental Shelf (OCS) leases, evaluates new technology to be used in the Gulf of Mexico (GOM), reviews and approves exploration and development plans, and administers the GOM accident investigation and civil penalty programs. He managed 180 employees, including District Offices in Houma, Lafayette, Lake Charles, and New Orleans, Louisiana, and Lake Jackson, Texas.

Mr. Herbst began his career with MMS in 1983 as a staff engineer in the Gulf of Mexico OCS Region's Technical Assessment unit. He is a registered professional engineer in the State of Louisiana and holds a BS degree in petroleum engineering from Louisiana State University.

Robert P. LaBelle

Robert LaBelle, as the Deputy Associate Director for Offshore Minerals Management, serves as Chief Operating Officer for the management of all facets of the Offshore Program, including policy development, policy implementation, and program planning. He is responsible for directing the implementation of Offshore's Strategic Plan and serves as Executive Secretary for the Offshore Steering Committee, as well as Chairman of the Offshore Information Management Committee. He is also providing oversight for new responsibilities in developing offshore renewable energy resources.

Previously, as Chief of the MMS Environmental Division, Mr. LaBelle was responsible for offshore oil and gas industry compliance with all environmental requirements, including water and air quality, endangered species, oil spill risk analysis, and archaeology, in all U.S. Federal waters. He oversaw a large environmental research program and the preparation of Environmental Impact Assessments and other decision documents used for both offshore energy and mining activities.

In prior positions, Mr. LaBelle was Chief of the MMS Technology Assessment and Research Branch, where he led research on engineering and technical aspects of offshore production and development. Previous positions at MMS and USGS include Chief of the Environmental Operations and Analysis Branch, and Chief of the Branch of Environmental Modeling. Prior to joining Interior, Mr. LaBelle worked for Martin Marietta Corp. as an environmental analyst on the siting of electrical power plants and on assessing the effects of nuclear power stations on aquatic species. Mr. LaBelle is a graduate of the University of Massachusetts (BS), the University of Maryland (MS), and Loyola College (MBA).

Lawrence J. Rouse

Dr. Rouse is an Associate Professor in the Department of Oceanography and Coastal Sciences at Louisiana State University. His research interests are in coastal and shelf circulation, estuarine-shelf exchange, and remote sensing observations of these processes. He is a member of the Coastal Studies Institute and director of the Coastal Marine Institute at LSU.

Renee Orr

Ms. Orr is Chief of the Leasing Division. She is responsible for overseeing the development and implementation of the 5-Year Oil and Gas Leasing Program; providing leadership, policy direction, coordination, and oversight for the Department of Interior's new authority to permit renewable OCS energy-related projects; providing policy direction for the development of marine mineral resources on the Outer Continental Shelf; and overseeing MMS's OCS mapping and boundary determination responsibilities. She has her BA's in Economics and History from Metropolitan State College of Denver.

MINERALS MANAGEMENT SERVICE



***Personnel Who Interact with
the OCS Scientific Committee***

Greg Gould

Mr. Gould was appointed Chief of the Environmental Division for Offshore Minerals Management on June 24, 2004. Greg began his career with the DOI as a Geologist in the Atlantic Region of the Bureau of Land Management in 1981. Since 1988, he has served in various capacities in the headquarters offices of the MMS Offshore program, working as a Marine Policy Analyst with the Offshore Information Program, a Physical Scientist in charge of the MMS Civil/Criminal Penalties Program, and as Chief of the Safety and Enforcement Branch in the Engineering and Operations Division. In addition to his Executive Branch work, Greg served as an energy advisor to the Chairman of the U.S. House of Representatives Subcommittee on Oceanography, Representative Solomon Ortiz of Texas. Greg earned a BS degree in Geology from the State University of New York, a Masters degree in Public Administration from George Mason University, and is a graduate of the Senior Executive Fellows program of the John F. Kennedy School of Government, Harvard University.

Fred Piltz

Dr. Piltz serves as the Department of the Interior representative to the West Coast Governor's Agreement on Ocean Health (one of three Federal co-leads under the Subcommittee for Integrated Management of Ocean Resources (SIMOR), the Regional Civil Penalty Review Officer, the Regional Representative to the MMS Information Committee, and is the Senior Environmental Scientist, Pacific OCS Region. He is responsible for the planning, implementation, and management of the environmental studies for the Pacific OCS Region. Prior to his current position, he worked in applied environmental impact assessment research as both a taxonomic consultant and field scientist in Southern California and in the Straits of Magellan, Chile. His research experience includes laboratory work on the effects of heavy metals on marine organisms, effects of oil spills on intertidal invertebrates, and effects of municipal sewage outfalls on benthic invertebrate communities.

Dick Prentki

Dr. Prentki is an Oceanographer in the Environmental Studies Section, Alaska OCS Region. His responsibilities include developing and providing technical oversight for physical and chemical oceanographic studies in the Alaska environmental studies portion of the MMS ESP. Dr. Prentki has been with the Alaska OCS Region since 1981, first in the Environmental Assessment Section and then in the Environmental Studies Section.

Pasquale F. Roscigno

Dr. Pat Roscigno is the Chief, Environmental Sciences Section (ESS) for the Gulf of Mexico and Atlantic OCS Regions. He is responsible for managing the Gulf and Atlantic OCS Regions' Environmental Studies Program (ESP). The ESP support studies that support OCS management decisions for the planning areas of the Gulf and Atlantic. Prior to his current position, he served as the Supervisor for the ESS Studies Plan Coordination Unit.

[Federal Register: May 2, 2007 (Volume 72, Number 84)]
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DEPARTMENT OF THE INTERIOR

Minerals Management Service

Outer Continental Shelf (OCS) Scientific Committee (SC);
Announcement of Plenary Session

AGENCY: Minerals Management Service (MMS), Interior.

ACTION: Notice of meeting.

SUMMARY: The OCS Scientific Committee will meet at the Hilton New Orleans/St. Charles Avenue in New Orleans, Louisiana.

DATES: Tuesday, May 22, 2007, from 8 a.m. to 5:30 p.m.; Wednesday, May 23, 2007, from 8 a.m. to 5:30 p.m.; and Thursday, May 24, 2007, 8:30 a.m. to 12:30 p.m.

ADDRESS: Hilton New Orleans/St. Charles Avenue, 333 St. Charles Avenue, New Orleans, Louisiana 70130, telephone (504) 524-8890.

FOR FURTHER INFORMATION CONTACT: A copy of the agenda may be requested from MMS by calling Ms. Carolyn Beamer at (703) 787-1211. Other inquiries concerning the OCS SC meeting should be addressed to Dr. James Kendall, Executive Secretary to the OCS SC, Minerals Management Service, 381 Elden Street, Mail Stop 4043, Herndon, Virginia 20170-4817 or by calling (703) 787-1656.

SUPPLEMENTARY INFORMATION: The OCS SC will provide advice on the feasibility, appropriateness, and scientific value of the OCS Environmental Studies Program to the Secretary of the Interior through the Director of the MMS. The SC will review the relevance of the research and data being produced to meet MMS scientific information needs for decisionmaking and may recommend changes in scope, direction, and emphasis.

The Committee will meet in plenary session on Tuesday, May 22. The Deputy Associate Director will address the Committee on the general status of the MMS and its activities. There will be an update on OCS activities in the Gulf of Mexico OCS Region and briefings on MMS' Alternate Energy Program and the Louisiana State University Coastal Marine Institute program.

On Wednesday, May 23, the Committee will meet in discipline breakout sessions (i.e., biology/ecology, physical sciences, and social sciences) to review the specific research plans of the MMS regional offices for Fiscal Years 2007 and 2008.

On Thursday, May 24, the Committee will meet in plenary session for

reports of the individual discipline breakout sessions of the previous day and to continue with Committee business.

The meetings are open to the public. Approximately 30 visitors can be accommodated on a first-come-first-served basis at the plenary session.

Authority: Federal Advisory Committee Act, P.L. 92-463, 5 U.S.C., Appendix I, and the Office of Management and Budget's Circular A-63, Revised.

Dated: April 26, 2007.

Chris C. Oynes,
Associate Director for Offshore Minerals Management.

[FR Doc. E7-8331 Filed 5-1-07; 8:45 am]
BILLING CODE 4310-MR-P

Outer Continental Shelf Scientific Committee Charter

Official Designation: Outer Continental Shelf (OCS) Scientific Committee.

Scope and Objectives

The OCS Scientific Committee will provide advice on the feasibility, appropriateness, and scientific value of the Outer Continental Shelf Environmental Studies Program to the Secretary of the Interior through the Director of the Minerals Management Service (MMS). The Committee will review the relevance of the research and data being produced to meet MMS scientific information needs for decision making and may recommend changes in scope, direction, and emphasis.

Duration and Termination

The Committee will terminate 2 years from the date this charter is filed, unless renewed prior to that date to comply with section 14(a) (2) of the Federal Advisory Committee Act. The Committee charter may be renewed by the Secretary as long as the Offshore Minerals Management Program of the Minerals Management Service requires advice and expertise of the Committee.

Official to Whom the Committee Reports

The Director, Minerals Management Service.

Bureau Responsible for Providing Necessary Support

The Department of the Interior, Minerals Management Service.

Estimated Operating Costs

Annual activities of the Committee will require approximately 544,000 and 1-year of Federal employee support.

Description of Duties

The duties of the Committee are solely advisory and are stated in Scope and Directive above.

Estimated Number and Frequency of Meetings

The Committee will meet at the request of the Director, but not less than once a year. Subcommittees will meet as necessary to accomplish their assignments, subject to approval by the Committee Chair.

Travel Expenses

Each voting non-Federal member will be reimbursed for travel expenses incurred when attending Committee and subcommittee meetings in accordance with Federal travel regulations as implemented by the Department of the Interior.

Membership

The Secretary will appoint non-Federal members to the Committee to serve a 2-year term. Non-Federal members may not serve more than three consecutive terms. There will be no alternates. The Secretary may revoke an appointment to the Committee if a member fails to attend two consecutive meetings. Previous service on the Minerals Management Advisory Board OCS Scientific Committee will count as service on this Committee for purposes of determining eligibility. After a 2-year break in service, that member will again be eligible for appointment.

Appointments will be made to balance the Committee in terms of technical skills and geographic representation. Members will be appointed to the Committee based on the following criteria:

- Scientific competence,
- Reputation within their field of expertise, and
- Ability to represent important elements of the MMS's research and science information efforts.

Federal Members

The Director, Minerals Management Service, or designee, is a nonvoting, ex officio member of the Committee.

Subcommittees

The Committee may establish subcommittees to study issues in-depth and to develop recommendations for consideration by the full Committee. Membership will be balanced in terms of perspective, subcommittee function, and expertise required by the subcommittee. Subcommittees may include people who are not members of the Committee. The Committee Chair will appoint subcommittee members. Subcommittee members will be reimbursed for travel expenses incurred when attending subcommittee or committee meetings to present subcommittee deliberations to the full Committee. Subcommittee members will be reimbursed in accordance with Federal travel regulations as implemented by the Department of the Interior.

Officers

The Committee will elect from its membership a Chair, Vice Chair, and Parliamentarian to serve a 2-year term. The Associate Director for the Offshore Minerals Management Program, or designee, will serve as the Designated Federal Officer. The MMS Chief Scientist is the Executive Secretary and MMS Science Liaison to the Committee and will attend all meetings.

Meeting Minutes

Detailed minutes of each Committee meeting, recommendations made, and copies of all studies and reports received, issued, or approved in conjunction with the activities of the Committee will be available for public review at the following location:

Minerals Management Service
381 Elden Street, Mail Stop 4001
Herndon, Virginia 20170-4817

Ethics Responsibilities of Members

The OCS Scientific Committee members are designated special government employees and will comply with applicable ethics rules and regulations. The Department of the Interior will provide materials to members who are appointed as special government employees, which will explain their ethical obligations- Consistent with the ethics requirements, members will endeavor to avoid any actions that would cause the public to question the integrity of the Committee's operations, activities, or advice. The provisions of this paragraph do not affect any other statutory or regulatory ethical obligations to which a member may be subject.

Internet Homepage

Information on the Committee may be found on MMS's Internet site, <http://www.mms.gov>.

Authority

We have determined that the Committee is in the public interest in connection with duties of the Department of the Interior. We have authority for these duties under the OCS Lands Act, as amended (43 U.S.C. 1331 *et seq.*)

The Committee activities will be governed by the Federal Advisory Committee Act (5 U.S.C. Appendix 2), as amended and implementing regulations.

_____/S/ Gale Norton_____
Secretary of the Interior

February 17, 2006
Date Signed

**Report from the Alaska Subcommittee of the MMS OCS Scientific Committee
North Aleutian Basin (NAB) Planning Meeting
Nov 28- Dec 1, 2006, Anchorage, Alaska**

Dr. Michael Castellini, Chair, Alaska Sub-committee, Dr. Will Schroeder, Dr. Duane Gill

The NAB planning meeting was called by MMS Alaska Region to bring together scientific, agency, user, and public members to describe the major issues relative to possible lease sales in the NAB basin. The program was coordinated and run by Argonne National Laboratories under contract to MMS. The Alaska Subcommittee was invited to attend and we held a phone conference call with the subcommittee members in October to prepare for the meeting. Some of the subcommittee members attended the Chukchi planning meeting in early November and others attended this NAB meeting.

The NAB planning meeting was organized around a day of review presentations by scientists' major fields of concern and then 2 days of workshops designed to derive the studies needed in five major areas (oceanography, fisheries, social/subsistence, marine mammals and birds). On the last day, working group recommendations were presented to the entire body. The meeting adjourned and then the Argonne facilitators, MMS personnel, and subcommittee members worked for several hours on recommendations and the process that will occur during the next several months.

The crux of this meeting was that if the lease sales are included in the upcoming 5-year plan by MMS, then MMS will begin work immediately on critical data needs that would be necessary for Environmental Impact Statements, National Environmental Policy Act, and various permitting processes. Therefore, the working groups were tasked with describing research needs within the framework of the agency requirements.

A full report on the meeting and the results of workshops are to be provided by Argonne sometime in December.

The purpose of this subcommittee report is to comment on the meeting process, to request materials for review as the agency moves through the next several steps of recommending studies, and to provide a "first-look" review of the scientific findings of the meeting.

The NAB planning meeting was open to the public and a broad group of scientists, agencies, non-government organizations, and public; university and regional corporations were both invited and attended. A list of the invitees is in the back of the meeting documents. Not everyone could attend, but the subcommittee verifies that the meeting was driven by the attendees and that Argonne facilitated, but did not direct the discussions. Further, we verify that MMS did not direct the meeting to influence the outcome of which studies should be considered as priorities. That is, MMS staff members were in the working groups to add information or help describe the process, but they did not direct the discussion to include any particular project.

The three members of the Scientific Committee attended all working groups several times each day but only marginally participated in the discussions, if at all. We did not influence the recommendations nor offer the view of the Scientific Committee members.

When we met with MMS personnel and Argonne facilitators on Friday after the planning meeting, the subcommittee outlined several items and requests:

1. We requested that MMS provide the full Scientific Committee with monthly updates on the process of how projects prioritized for funding were selected, reviewed, and announced.
2. Given that many of planning group recommendations involved major Bering Sea ecosystem monitoring components, we stressed that MMS must collaborate with the North Pacific Research Board (NPRB) and with the National Science Foundation (NSF) Bering Sea programs. These two agencies have similar goals and objectives and working with them is critical.
3. Because many of the panel recommendations dealt with nearshore oceanography and biology, MMS will need to approach those issues with the realization that NSF and NPRB do not have nearshore programs. MMS will need to be the lead on these projects as they move in that direction.
4. Societal impacts of NAB development will also need to be conducted primarily through MMS direction. There are programs in the region dealing with socioeconomic and subsistence utilization, but they do not offer the coordinated objectives that would be necessary for NAB development.
5. The subcommittee followed the discussions of MMS about which suggested programs they felt were immediately critical to their needs. While we cannot discuss those suggestions in this document, the full Scientific Committee will see them as they are developed and reported under #1 above.

**MMS Alaska OCS Region Responses to:
Report from the Alaska Subcommittee of the MMS OCS Scientific Committee
North Aleutian Basin (NAB) Planning Meeting
November 28 – December 2, 2006, Anchorage, Alaska**

1) We requested that MMS provide the full scientific committee with monthly updates on the process of how projects prioritized for funding were selected, reviewed and announced.

There has been little to report since the events of the NAB planning meeting; however, with the release of the Final Proposed 5-year Plan, 2007- 2012 activities are now proceeding. The Alaska OCS Region is proceeding with plans to procure a number of high priority research projects consistent with the events of the NAB planning meeting. Projects currently in the “procurement” stage were selected on the basis of managerial assessment of greatest utility in meeting the agency responsibilities under the OCS Lands Act.

2. Given that many of planning group recommendations involved major Bering Sea ecosystem monitoring components, we stressed that MMS must collaborate with the North Pacific Research Board (NPRB) and with the National Science Foundation Bering Sea programs. These two agencies have similar goals and objectives and working with them is critical.

MMS has taken steps to circulate information and to initiate collaboration with other agencies involved in Bering Sea research. Workshop reports provide one important vehicle of communication, and these reports are scheduled to become public documents by the end of May. More significantly, MMS has initiated an inter-agency agreement with NMFS to develop a cooperative research effort consistent with the discussions of the NAB planning meeting. MMS staff has also attended relevant meetings to explore more directly the potential for future collaboration. For example, an MMS oceanographer attended the North Pacific Research Board Contaminants Workshop in early 2007, and joint funding with NSF on an arctic social science project in 2006 will facilitate opportunities for potential new collaboration in the Bering Sea.

3. Because many of the panel recommendations dealt with nearshore oceanography and biology, MMS will need to approach those issues with the realization that NSF and NPRB do not have nearshore programs. MMS will need to be the lead on these projects as they move in that direction.

The MMS Alaska OCS Region will proceed along such a line of leadership.

4. Societal impacts of NAB development will also need to be conducted primarily through MMS direction. There are programs in the region dealing with socioeconomics and subsistence utilization, but they do not offer the coordinated objectives that would be necessary for NAB development.

MMS has nominated and prioritized for FY08 funding a social research study on subsistence activities in select communities. This effort will likely involve collaborative efforts with Alaska Department of Fish & Game.

5. The subcommittee followed the discussions of MMS about which suggested programs they felt were immediately critical to their needs. While we cannot discuss those suggestions in this document, the full scientific committee will see them as they are developed and reported under #1 above.

As will be seen in the MMS Alaska OCS Region's Studies Development Plan, 2008-2010, the nomination and prioritization of the relevant research projects for the NAB area are well underway.

**Report from the Alaska Subcommittee of the MMS OCS Scientific Committee
Planning Workshop: Chukchi Offshore Monitoring in Drilling Area (COMIDA)
November 1-3, 2006, Anchorage, Alaska**

John Trefry, Lynda Shapiro, Peter Schweitzer

Overview

The purpose of the workshop was to discuss and identify specific needs for monitoring of environmental effects of OCS Exploration and Development in the Chukchi Sea. The impetus for the workshop was the proposed Chukchi Sea Sale 193, scheduled for November 2007.

The final products of the workshop were descriptions of Monitoring Tasks that were developed by workshop participants in the following disciplines:

- (1) Physical Oceanography and Fates and Effects
- (2) Biology, including Benthos, Fish and Waterfowl
- (3) Protected Species
- (4) Socioeconomics and Subsistence

The organization of the workshop was as follows:

Day 1. Presentations by MMS representatives that introduced the COMIDA program and the Chukchi Sea Environmental Impact Statement in the context of ongoing Environmental Studies Program in Alaska.

Background on relevant industry monitoring studies.

Talks by invited speakers that provided background information in the topic areas of the workshop listed above.

Summation and charge to the four breakout groups.

Day 2. Full day of discussion and preparation of selected Monitoring Tasks by each of the four working groups.

Day 3. Presentations and discussions of the key tasks prepared by each of the four working groups.

Products of the Workshop

The final series of monitoring products includes about 3-4 tasks per group and encompasses many of the key data and monitoring needs for the Chukchi Sea. The complete task descriptions are available from the subcommittee. Titles for the various tasks are listed below.

- (1) Physical Oceanography and Fates and Effects
 - a. Data mining
 - b. Chemical and hydrocarbon monitoring
 - c. Supporting physical studies
- (2) Biology, including Benthos, Fish and Waterfowl
 - a. Quantitative benthic characterization
 - b. Effects of Onshore and Offshore Development on Birds
 - c. Sea Forage Fish
 - d. Characterize the Chukchi Sea Ecosystem
- (3) Protected Species
 - a. Seasonal distribution and abundance of marine mammals: acoustic assessments
 - b. Seasonal distribution and abundance of marine mammals: aerial
 - c. Seasonal distribution and abundance of marine mammals: tagging
- (4) Socioeconomics and Subsistence
 - a. Impact assessment for offshore subsistence hunting (2008-2011)
 - b. Impact assessment for near-shore subsistence hunting (2010-2013)
 - c. Impact assessment for offshore subsistence hunting (2012-2015)

Review of the Workshop by the Subcommittee

The three subcommittee members participated in part or all of the planning sessions. Overall, the Workshop was viewed as successful by most of the subcommittee members present, although some shortcomings were noticed by all three members (see below). Several potential monitoring tasks were developed and options for sharing resources (e.g., ship time) and partnering with other agencies were discussed in good detail. Nevertheless, the integration of projects, especially across disciplinary boundaries, remained sketchy. The discussion of options for ships and partnering was very good. Considerable detail was included by each of the four groups.

Several additional, specific comments are listed below.

1. The subcommittee noted that there was only a short lead time between the announcement of the sale and the workshop. Nevertheless, MMS should have been able to attract a broader (but not necessarily larger) audience by making use of existing electronic distribution systems. The workshop would have benefited from fresh faces and voices provided by investigators outside of MMS' present funding arena.

2. Participation by some stakeholders, especially Native Alaskans and commercial fishers, was viewed as being particularly weak. This was a result of the Alaska Region's decision to separate stakeholders' input from scientific deliberations. Stakeholders met with the Region in the weeks immediately before the workshop, but their participation in the workshop itself might have provided an interesting additional perspective.
3. Development of budgets for each task was viewed as a bit restrictive; still, we recognize that this might have been a consequence of the fact that the overall budget was far too small for the task at hand.
4. The format for presentations was somewhat restrictive, resulting in several instances in stifled discussions and artificially constructed hypotheses. Overall, however, the presentations were good.
5. MMS did a good job of facilitating the efforts of the participants in each of the four sub-groups without influencing the direction of the suggested research projects.

Recommendations

1. We recommend that the outcome of the COMIDA Workshop be distributed widely to other academic and private researchers, stakeholders, and selected government agencies for comment over a reasonable time period. This input may compensate in part for the restricted participation at the workshop.
2. We recommend that the initial discussion of coordination with other ongoing programs in the Chukchi Sea be continued and implemented for the benefit of ship time and logistics.
3. The number and estimated costs of the potential projects defined far exceeds the funding that is likely to be available. We concur with MMS plans to use information from the Phase 1 effort, along with other feedback, and possible collaboration with other programs, to maximize the effort.
4. We recommend that the Alaska Region develop a list of relevant scientific organizations in the field; in addition, they should develop contact lists of scientists funded by Federal agencies active in environmental research. That way, MMS will be better prepared for disseminating information on short notice in the future.

**MMS Alaska OCS Region Responses to:
Report from the Alaska Subcommittee, OCS Scientific Committee
Planning Workshop: Chukchi Offshore Monitoring in Drilling Areas (COMIDA)
November 1-3, 2006, Anchorage Alaska**

1. We recommend that the outcome of the COMIDA Workshop be distributed widely to other academic and private researchers, stakeholders and selected government agencies for comment over a reasonable time period. This input may compensate in part for the restricted participation at the workshop.

Response:

The “Chukchi Offshore Monitoring in Drilling Area (COMIDA)” planning workshop, November 1-3, 2006, held in Anchorage, Alaska was conducted to help initiate design of the proposed MMS COMIDA monitoring project.

The workshop was announced on the MMS website. Written invitations were sent to over 150 scientists and stakeholders, including local and regional governments, tribes, native associations, oil industry, and environmental groups on the Alaska OCS Region mailing list. In addition to written invitations to those to the Alaska OCS Region mailing list, invitations went to approximately 50-name-requested scientists. Over a hundred scientists and stakeholders attended with 77 registering.

The purpose of the meeting was to briefly review existing research; to identify information needs; and to recommend research monitoring concepts, experimental designs, and scope of field studies to address MMS needs for environmental monitoring of potential Outer Continental Shelf oil and gas exploration and development. Specifically, the workshop will provide input to a COMIDA Phase II environmental monitoring field program proposed for FY 2008. Thirteen monitoring study profiles were developed by four working groups, were presented to and discussed by the workshop on the third day and submitted to MMS for consideration.

The workshop results have undergone significant review and refinement. The workshop study profiles were provided to oil industry and multiple Federal agencies for information and comment immediately following the workshop. Interested participants were provided copies of profiles to take back to their organizations for review and revision. The *COMIDA: Chemical and Hydrocarbon Monitoring* study profile and its potential for collaboration/coordination was described and discussed during the Alaska Department of Environmental Conservation AKMAP Workshop, and to a lesser extent at the North Pacific Research Board Contaminants Workshop, both in early winter 2007. The completed draft workshop report was peer-reviewed by non-participant scientists. The completed final workshop report will be posted on the MMS website, specifically flagged for comment. The workshop profiles, post-workshop profiles and other review comments have been, and will continue to be, used to revise and prioritize COMIDA study profiles for entry into the Alaska Annual Studies Plan process. The draft Alaska Annual Studies Plan will also be widely available for review.

2. We recommend the initial discussion of coordination with other ongoing programs in the Chukchi Sea be continued and implemented for the benefit of ship time and logistics.

Response:

The MMS Alaska OCS Region has had preliminary discussions with the Alaska Department of Environmental Conservation (ADEC) regarding vessel sharing between MMS and the AKMAP program. Further discussions with ADEC, and other entities, will occur for those COMIDA study nominations which progress to the funding stage.

3. The number and estimated costs of the potential projects defined far exceeds the funding that is likely to be available. We concur with MMS plans to use information from the Phase 1 effort, along with other feedback, and possible collaboration with other programs, to maximize the effort.

Response:

The Alaska OCS Region will proceed along these lines.

4. We recommend that the Alaska Region develop a list of relevant scientific organizations in the field, in addition, they should develop contact lists of scientists funded by federal agencies active in environmental research. That way, MMS will be better prepared for disseminating information on short notice in the future.

We will continue to work on our list of relevant scientific organizations and continue to include all organizations expressing interest in the Alaska Region Studies Plan. For procurement information regarding potential environmental studies, MMS uses and is required to use, FedBizOpps for notification. We will also use other types of notices through such list-serves as ArcticInfo, administered by the Arctic Research Consortium of the United States (ARCUS).

Report from the Deepwater Subcommittee of the MMS OCS Scientific Committee Gulf of Mexico ITM

January 9-11, 2007, New Orleans, Louisiana

Joe Smith, Chair, Deepwater Sub-committee, Will Schroeder, Mike Rex, and Robert Diaz

MMS OCS Scientific Committee Deepwater Subcommittee (DW/SC) members Joe Smith, Will Schroeder, and Mike Rex met at the Gulf of Mexico ITM to discuss possible deepwater-related items for possible consideration at the upcoming general meeting of the OCS Scientific Committee meeting. OCS Scientific Committee chair Bob Diaz also participated in this discussion. The following discussion summary lists some issues that we may want to consider more fully at our next general committee meeting.

Research on Deepwater Corals

The ITM meeting agenda includes several presentations related to the distribution and biology of deepwater corals, in particular Lophelia pertusa. It appears that MMS is considering planning the next round of biological studies of these organisms. After discussing the results presented at the meeting, the DW/SC recommends that a period of evaluation and synthesis would be appropriate before plunging ahead with the next round of deepwater biological studies. The DW/SC recognizes that the MMS has parallel interests in this area: exploratory studies aimed at defining the range habitats of deepwater corals, and studies aimed at defining the factors that control the development, growth, and environmental sensitivities of these organisms. Effective planning and execution of studies in the latter area will require full consideration of the final results of the current research project. Although exploratory studies can continue, the learnings from studies done to date need to be digested before properly designed further studies can be effectively scoped and contracted.

Effects of Deepwater Oil and Gas Exploration and Development on the Continental Slope

MMS recently completed a multi-year program of study of the environmental effects of oil and gas exploration and development at continental slope sites with water depths near 1000-1100 m depth range. During the ITM meeting discussions, the question arose as to whether an additional similar study was needed for sites representing the current depth ranges of current deepwater activity, e.g. 2500 m. This issue was discussed during the subcommittee meeting. The results reported for sites in the 1000-1100 meter depth range seem qualitatively similar to those that have been observed in other studies at shallower (300–600 m) depths, particularly when allowing for some increase in the areal footprint of discharged materials resulting from the greater depth available for dispersion.

Considering that the deepwater fate and effects study of drilling discharges showed that the effects are in general similar to those observed at moderate depths, it is not clear that there is a strong need to extend the fate and effects work to the 2500 m depth range. The DW/SC does not see a clear need for repeating this study at a greater depth unless there was some evidence to indicate that qualitatively different phenomena influencing the impact of industry activities were taking place in a greater depth range.

Vessel Resources and Collaboration Initiatives for Deepwater Research

New research required as drilling activities expand into deeper areas of the Gulf of Mexico is taxing the available vessels support resources. The Scientific Committee may wish to recommend that MMS work towards interacting with other agencies to shift more blue water ship and submersible support to the Gulf of Mexico.

Research collaborations with Mexican institutes and scientists will be very important for making the best use of what we learn from studies of the southern extent of the U.S. deepwater Gulf of Mexico. To follow up on its recommendation from two years ago, the Scientific Committee should ask for an update from MMS on efforts to work out agreements for collaborative programs in advance of U. S. research efforts.

J.P. Smith
DW/SC Chair

MMS Gulf of Mexico OCS Region (GOMR) Response to:

**Report from the Deepwater Subcommittee
of the OCS Scientific Committee (OCS SC)
Gulf of Mexico ITM**

January 9-11, 2007, New Orleans, Louisiana

Response: Research on Deepwater Corals

MMS GOMR staff and the Subcommittee have been involved in ongoing discussions over the past few years resulting in an evolving consensus that a period of evaluation and synthesis are needed. As part of this re-evaluation, MMS has modified, delayed, and combined aspects of several previously proposed studies to achieve the recommended goal. Our efforts, and line of reasoning, will be presented to the OCS SC at the upcoming meeting in New Orleans.

Response: Effects of Deepwater Oil and Gas Exploration and Development on the Continental Slope

The MMS GOMR concurs with the Subcommittee's assessment that there is no need for a study to examine the effects at 2500m depth at this time.

Response: Vessel Resources and Collaboration Initiatives for Deepwater Research

The MMS GOMR has been working on involving as many Federal Agencies as possible in joint, collaborative work. Evidence of our success is our collaboration through the

National Oceanographic Partnership Program (NOPP) on various research studies: deepwater archeology and reef effects; marine mammals; and hydrates and chemosynthetic communities. These collaborations have resulted in the MMS Projects winning three prestigious Cooperative Conservation awards from the Department of Interior and the 2007 NOPP Interagency Excellence in Partnering Award. Further, the GOMR has made very substantial progress in developing collaborations with the Mexican government and with PEMEX. These new initiatives will be reported in detail to the Committee at their upcoming New Orleans meeting.

SUMMARY

The Outer Continental Shelf Scientific Committee (OCS SC) held its annual meeting May 22 through 24, 2007, in New Orleans, Louisiana. The morning session on Tuesday, May 22, began with a brief welcome from the Chair, Dr. Robert Diaz and Mr. James Cimato, Acting Chief of the Environmental Sciences Branch and Executive Secretary of the OCS SC. Mr. Robert LaBelle, Deputy Associate Director, Offshore Minerals Management, represented the Director and reported on and discussed with the OCS SC the status of the Minerals Management Service oversight and associated issues. This was followed by a series of informational presentations. Mr. Joseph Christopher, Regional Supervisor, Office of Leasing and Environment, Gulf of Mexico OCS Region, gave the committee an update on the Gulf OCS. This was followed by Ms. Maureen Bornholdt, Program Manager, Renewable Energy/Alternative Use Program, and Dr. Michael Fry, Chair of the Subcommittee on Alternative and Renewable Energy, who gave updates on alternative and renewable energy efforts within MMS. Dr. Victor Carrillo, Chair of the OCS Policy Committee, presented a summary of their last meeting, discussed how the Policy Committee operated, and welcomed interactions between the two OCS Committees. Dr. Byron Griffith, Director of EPA's Gulf of Mexico Program, gave a detailed overview of the Gulf of Mexico Program. Mr. Cimato made an insightful presentation describing the efforts MMS puts into collaborative programs with other agencies and summarized highlights of the Environmental Studies Program and the goals for the rest of the SC meeting. These presentations were followed by reports from our Subcommittees with Dr. Michael Castellini, Associate Dean, School of Fisheries and Ocean Sciences, summarizing Alaska Subcommittee activities and Dr. Joseph Smith, ExxonMobil Upstream Research Company, summarizing Deepwater Subcommittee activities. Dr. Larry Rouse, Director of Louisiana State University's Coastal Marine Institute (CMI), outlined the work done for MMS under the CMI program with presentations by scientists on two current projects. Mr. Joseph Christopher also presented and discussed the 2007-2012 OCS Oil and Gas Leasing Program. The day finished with an interesting talk by Dr. Tyler Priest, SC member and author of *The Offshore Imperative, Shell Oil's Search for Petroleum in Postwar America*.

Wednesday, May 23, was spent reviewing regional environmental studies plans and proposals. Following a brief charge from the Chair to the Discipline Breakout Groups, the groups went into their sessions (Ecology/Biology, Physical Oceanography, and Social Sciences) that considered regional priorities and information needs. Each Discipline Breakout Group met with staff members from each Region and Headquarters. In each breakout session, a committee member was designated as a discussion leader and an MMS staff member was assigned to take notes. The studies chiefs and staff members were asked to identify, justify, and discuss regional priorities for future environmental studies. The ESP presentations were very effective and have been progressively improving in quality over the last 5 years. This is a very productive format and the SC is very appreciative of the time and effort invested by Headquarters and the Regions in preparing and presenting these briefings.

On Thursday, May 24, the Discipline Breakout Group reports from each discipline session were presented to the entire SC. A general discussion followed the presentations with time allotted at the end for public comments. The committee then went into business session and developed the following acknowledgments and recommendations for the Director of MMS:

- The committee unanimously expressed its overall high regard for the personnel and programs of Headquarters and the Regions. They continue to appreciate the materials provided to them before the meeting, including the clear and concise responses to the recommendations made the previous year.
- The committee commended MMS for significant progress on international work with Mexico. This cooperation strengthens ESP studies and increases the visibility of MMS contributions and their science value.
- The high level of communication within MMS, particularly at the regional level, has led to solid cooperation and information flow. The Regions are to be commended in their continuing cooperative efforts.
- The committee supports the effort MMS has spent on keeping its Internet site current and informative. This has positive results as the Internet is a critical portal for communicating with scientists, the public, and policy makers.

- The Gulf of Mexico Region deserves special recognition for the work its dedicated staff put in to recover so quickly after the 2005 hurricane season and maintain its high level of activity.

As a result of this year's deliberations, the following recommendations emerged:

1. Data availability and archiving - Continue work to make MMS data available via MMS web sites and links to data storage systems (e.g. NODC). This will require continual effort and innovation as the magnitude of data increases. However, it is also of great importance to allow integrated research across disciplines as ecosystem modeling and climate change become critical areas of investigation.
2. Collaborative funding - Support for continued progress and success in collaborative funding across agencies (e.g. NOPP). Also suggest that methods for match funding and cross funding with Agency-Industry programs be expanded. Explore innovative pathways for industry to contribute to research efforts.
3. Rapid response to alternative energy research needs - Research in alternative energy is a nascent field and is driven by rapidly changing business opportunities and economics. The MMS research program has evolved to work best with oil and gas, which is a mature industry that does not move as quickly and does not have as many smaller entities trying to break into the area of energy production. The MMS research program needs a rapid response component to research concepts and permits in alternative energy in order to keep up with this field.
4. Ecosystem based research and enhanced interactions between MMS Regions - The MMS should continue to support and enhance ecosystem based research approaches in order to better understand scientific issues in their geographical regions. Regions are moving in this direction and this needs to be supported, reinforced, and rewarded. It is important that MMS regional programs increase interactions with one another to enhance transferable research lessons, findings, and data.
5. Re-establish sand and gravel research program - The committee was concerned that while the regulatory aspects of permitting for sand and gravel continue, research oversight has been significantly reduced. Consequently, there is minimal cohesive and external review oversight of the environmental impacts of sand and gravel activities. This program should be returned to MMS ESP with adequate funding for its mission.

There is growing concern about the relationships of OCS activities and wetland submergence in the GOM Region. The committee requests a focused presentation on this issue at its spring 2008 meeting. If this is an emerging issue that MMS will need to consider, a presentation will be important for that discussion.

Finally, Chair Diaz expressed the committee's appreciation regarding MMS's support and use of OCS SC Subcommittees.