OUTER CONTINENTAL SHELF (OCS) SCIENTIFIC COMMITTEE (SC)
April 27-29, 2005
Website Summary

April 27, 2005

A. Subcommittee Reports and Discussion

1. Deepwater. Dr. William W. Schroeder informed the SC that, in January 2005, the Deepwater Subcommittee met to review the progress of ongoing and planned MMS studies in the deep Gulf of Mexico (GOM), and to discuss potential future directions for deepwater studies. He reported that MMS studies have provided very exceptional understanding of separate components of the deep Gulf ecosystem including geology, physical and chemical oceanography, and a broad range of living communities. All of these components are ecologically interdependent. The Deepwater Subcommittee recommended that the emphasis of future MMS deepwater studies begin to shift toward a more interdisciplinary ecosystem-level approach that integrates the structure and function of different habitats and communities with physical oceanographic processes. An ecosystem-level understanding of the GOM is ultimately necessary for effective resource management and environmental stewardship.

Toward this objective, the subcommittee recommended that the SC endorse the following actions for the MMS:

a. Support the proposed Chemo III Study to extend the investigation of chemosynthetic communities in water deeper than 1000 m.
b. Facilitate and expedite the synthesis phase of the Gulfwide Deep Gulf of Mexico Benthic Study (DGoMB) of soft sediment communities.
c. Coordinate future studies with other funding agencies that sponsor research in the Gulf.
d. Pursue agreements with the Mexican government, universities, and the Mexican Academy of Sciences to establish a framework of international cooperation for future studies in the southern Gulf.

2. Arctic. Dr. Michael Castellini reported that the subcommittee met in February 2005 at the MMS facility in Anchorage, Alaska, with various stakeholders, interested public members, and scientific groups doing research in the region. Also invited to attend were specialists in several fields of potential upcoming MMS research areas. Updates of major activities taking place in Alaska including the status of lease sales and development reviews, current science activities, and priority arctic science questions for consideration were discussed and presented to the subcommittee. Several members of the subcommittee also attended the Information Transfer Meeting (ITM) held by the Alaska OCS Region in Anchorage in March.

3. MMS/EPA/DOI Hypoxia Meeting. Drs. Robert Diaz and Mary Scranton reported on the MMS/EPA/DOI Hypoxia meeting. An “Experts Meeting” on the subject was held to provide MMS and the Environmental Protection Agency (EPA) with the latest information on hypoxia and produced water volume and composition. Invitees included members of EPA, MMS, the Department of Energy, oil industry representatives, invited researchers, and SC

members. The SC members were invited since discussions were expected that could lead to recommendations for research and external peer review, and review by the members would enhance the process. This meeting was held due to last year's EPA concerns about possible future increases in produced water discharges and unreasonable degradation of the marine environment in the context of issuing a National Pollutant Discharge Elimination System General Permit in the GOM. The contribution of produced water to hypoxia, while expected to be very small, has not been directly investigated. As facilitators and observers, SC participation provided external peer review and critique of research designs under discussion. The SC members also provided peer review of a related report on hypoxia and the contributions from produced water, which was prepared by Dr. Nancy Rabalais.

B. MMS Archaeological Studies Fulfilling MMS Information Needs

Drs. Melanie Stright and Jack Irion reported that the National Historic Preservation Act of 1966, as amended, is Federal legislation developed to ensure that our Nation's historical and archaeological properties are not lost through neglect or inadvertently destroyed by activities permitted or funded by Federal agencies. Specifically, the MMS, as a Federal bureau, is required to ensure that activities it funds and activities it permits do not damage significant archaeological sites on the Federal OCS. To fulfill this mandate, the MMS has conducted archaeological baseline studies of the Atlantic, Pacific, and GOM continental shelves to define those areas where both historic shipwrecks and prehistoric archaeological sites are most likely to exist. The MMS has also conducted additional archaeological studies in the GOM region to further refine the methods and technology employed to identify and evaluate archaeological resources on the OCS.

C. Report from the last OCS Policy Committee Meeting

Officers of the OCS SC and the OCS Policy Committee routinely attend each other's meetings and give brief presentations on the various OCS issues with which they are involved. Mr. Berry (Nick) Tew, Chair and State Geologist and Oil and Gas Supervisor, Geological Survey of Alabama, presented the key items discussed at the OCS Policy Committee's November 2004 meeting.

D. MMS Director's Presentation and Discussion with the Committee

Ms. Johnnie Burton, MMS Director, presented to the SC the status of MMS oversight and associated issues. As advisor to the MMS Director, the SC 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 SC apprised of MMS's direction but also offers an opportunity for the SC to provide direct advice and guidance on matters as they relate to the Environmental Studies Program (ESP).

Below is Ms. Burton's verbatim presentation to the SC:

Good morning. It is good to be back together, and I am glad we can meet at such a beautiful time of year. Spring is a rejuvenating time of year. It is when we can climb out from under all our coats and hats and scarves and feel the sun and the breeze and smell the sweet air. It is also

an excellent time for us to stop and take stock of where we are and where we are going. This can apply to us personally, but for the next several days, it particularly applies to MMS and you, its Scientific Committee. For the next several days, we need to take a look at what the future holds for MMS and what we need to be doing to meet its research and information needs.

Today I would like to highlight for you the Offshore Minerals Management Program, its current status of oversight, and the issues we at MMS are addressing today and preparing for in the future.

This is insight that we believe will serve you when you review and comment on what we are "tentatively" planning under the ESP. Just to set the stage, let's review a few basics:

a. The MMS oversees 1.76 billion acres of OCS, managing offshore energy and minerals.
b. The MMS regulatory program is unique in that it is involved from the day of leasing to the final day of decommissioning.
c. The MMS carries out its mission through a variety of efforts such as estimating national OCS energy resources, assessing environmental impacts, research to assess and manage impacts of activities and to monitor for changes in the quality and productivity of the marine environment, leasing OCS acreage, analyzing and permitting industry's proposed actions, inspecting operations, enforcing statutory and regulatory requirements, identifying/making available OCS sand deposits for beach nourishment, and providing scientific and technical assistance to other nations.

We do all of this through a diverse and extensive program which requires diverse and extensive information. The OCS Lands Act, as amended, requires the Secretary of the Interior to prepare and maintain an oil and gas leasing program that indicates the size, timing, and location of leasing activity determined to best meet national energy needs for the 5-year period following its approval. However, over time, particularly since 1980, access to offshore resources has been increasingly restricted.

The present MMS 5-year leasing plan will end June 2007, so we have initiated the 2-year process to develop the 2007-2012 leasing program. An early step in the preparation process is to collect information on management issues and concerns, on priority ranking of the areas by industry, and on national energy needs, especially natural gas resources.

Now might be a good time to mention the outcomes of three recent lease sales under the present 2002-2007 plan. On March 16, Sale 197, eastern gulf, was held and reports 12 bids for almost $7 million, simultaneously. On March 16, we held Sale 194, central gulf, with 395 bids and a high bid total of $354 million. Then on March 31, we conducted Sale 195, Beaufort Sea. The OCS is partitioned into 23 planning areas. Areas not under Presidential exclusion or moratoria are in the GOM and Alaska. And except for the Aleutian Islands, Alaska is open for development but is still considered a frontier area. A banner sale for just under $50 million ($46,735,081.00)was held, and many of the majors participated.

Now, looking to the future, we face an ever growing plethora of challenges. I won't be able to cover them all, but I will touch on many of them this morning, and we will have time for some questions and discussions.

Gulf of Mexico OCS Region. The GOM is presently the major production providence, and we foresee a near-future decline in natural gas production followed by an increase. The increase reflects the importance of both deepwater and deep drilling on the traditional shelf.

Oil and Natural Gas Productions Numbers per day:

GOM – 1.6 million barrels of oil and 12.5 billion cubic feet of gas
Pacific – 82,000 barrels of oil and 160 million cubic feet of gas
Alaska – 63,000 barrels of oil, with 11,000 being the Federal share

The projection of the GOM oil production is dramatically different, with a strong surge in the next few years as large deepwater fields come on line. The production from deepwater GOM has been on a decade-long increase and shows little sign of a dropoff. There have been more than 150 deepwater discoveries in the GOM, with close to 100 scheduled to be on line by the end of 2005.

So what supports the projected increase of resources? Well, industry is returning to the shallow waters of the shelf, but are drilling deeper with proposed depths of greater than 15,000 feet total vertical depth to reach previously unknown deep deposits of hydrocarbon resources. We are supporting such efforts through royalty relief and lease extensions.

Another area is the ultra-deep water. Industry has and is using technology that allows ultra-deep water drilling, as deep as 1.3 miles. In 2004, we saw 12 of these new deepwater discoveries. It is anticipated that these new plays with their large geographic extent have an estimated resource amount of 1 billion barrels of oil equivalent. And if we are in need of a reminder of what man is capable of and the responsibilities that befall the MMS, we have Thunder Horse.

In March of this year, the world's largest production facility – Thunder Horse – was installed in the GOM. Discovered in 1999, Thunder Horse field is the largest field ever uncovered in the deepwater GOM with 1 billion barrels of estimated recoverable reserves. BP's Thunder Horse development is designed to use the largest production drilling quarters semi-submersible platform in the world. MMS has taken many extra steps to ensure it operates safely; however, because of the uniqueness of the platform due to its size, location and capabilities, it will remain a topic of interest and discussion for some time to come.

Another energy resource that falls under our purview is methane hydrates. As you may know, the U.S. Geological Survey conducted a worldwide assessment of hydrate deposits. At the completion of the assessment, it was concluded that there are large deposits located around the world. Hydrates has become a resource of interest because of its availability and the large return of potential energy, and it is a clean fuel source that can supplement gas and oil discoveries.

However, hydrates are known to be unstable and have caused difficulties while drilling for oil and gas. A Joint Industry Project, of which MMS is a participant, will conduct drilling exercises this spring to better evaluate and understand how this substance reacts under drilling conditions.

MMS is providing consultation and will be doing an assessment of hydrate deposits on the OCS to determine their availability, and later the amounts, which may be recoverable.

New technologies are now available, which use both P-waves and S-waves called four-component ocean bottom cable seismic or 4C-OBC, and may be better at locating hydrate deposits. Other technologies use high resolution deep-tow data.

Another issue, or should I say nuisance, was Hurricane Ivan. In September 2004, Hurricane Ivan, a full category-4 storm, moved through the U.S. GOM with extreme winds and large waves exceeding or matching the 100-year design criteria of the facilities in its path. Of the 4,000 offshore oil and gas facilities and 33,000 miles of pipelines in Federal waters of the GOM, approximately 150 facilities and 10,000 miles of pipelines were in the direct path of Hurricane Ivan. The oil and gas industry submitted numerous damage reports to MMS. The range of damaged facilities included mobile drilling rigs, offshore platforms, producing wells, topside systems including wellheads and production and processing equipment, risers, and pipeline systems that transport oil and gas ashore from offshore facilities.

Alaska OCS Region. A project in our sights is Liberty. As you may recall, the operator, BP, stopped all action for this development in 2002. Recently, however, MMS, the Army Corps of Engineers, and BP Exploration Alaska, Inc., signed a Memorandum of Understanding to delineate responsibilities and scheduled National Environmental Policy Act (NEPA) and permit reviews.

BP will submit a new Development and Production Plan by June 2006, and cooperating agencies will be working to flush out issues and concerns and to delineate the best development alternative for the Liberty Project during the next 15 months.

All in all, Alaska is seeing a new wave of interested oil and gas companies. Beaufort Sea sales have been the best we have seen since 1988, and companies are expressing strong interest in the Chukchi and North Aluetian Basin.

And an update on Northstar, the joint Federal/State of Alaska unit located in the Beaufort Sea offshore Alaska's North Slope: the unit includes three Federal and five State leases, and the reservoir is managed under a joint Federal/State unit agreement. Here, and in all MMS endeavors, we are employing the Secretary's 4 C's (conservation through communication, consultation and coordination) whenever possible.

The Northstar Unit is bringing in $30 million per year and still has new wells being drilled requiring more effort from MMS towards inspections and monitoring.

Pacific OCS Region. In the Pacific, 36 of the 79 OCS leases offshore California are undeveloped. Two suits pertaining to these leases have been filed: *California v. Norton* and *Amber Resources et. al. vs. United States*.

In *California vs. Norton*, MMS is drafting consistency determinations under the Coastal Zone Management Act to be filed with the California Coastal Commission in April 2005.

In *Amber*, lessees of the undeveloped Federal leases sued the U. S. Government for breach of contract, stating that they had not been permitted to develop their leases.

And on March 9, 2005, 10 environmental interest groups filed a lawsuit for the Northern District of California. The lawsuit alleges that MMS did not conduct a full and adequate environmental analysis pursuant to NEPA for lease suspensions of undeveloped leases offshore California.

Other issues the Pacific Region will be addressing are new drillings in Federal waters using extended reach well technology (drilling from platforms in Federal waters into State waters) and multiple-use management for activities we have briefly addressed this morning or are about to.

Just like the workforce, the facilities they operate are aging. As you can see from the graph, we have a large number of platforms that are approaching the end of their useful life. We are working with industry to address the issues associated with an aging infrastructure, an issue noted last year in the report by the U.S. Commission on Ocean Policy. We need to conduct research and re-evaluate our regulations and industry standards.

Another issue that MMS is dealing with which involves an overlap of offshore jurisdiction, is the increased pressure for offshore-based sites for imports of natural gas from overseas.

In the last few years, there have been several applications submitted to the Maritime Administration and the U.S. Coast Guard for the creation of offshore-based Liquified Natural Gas (LNG) import facilities in both the Pacific and Gulf Regions.

There are currently three approved "deepwater" ports and four proposed in the GOM region and two in the Pacific.

The Gulf Gateway port, which operates using a moored buoy as an offloading terminus, received its first delivery in March of this year. It is the first deepwater LNG port in the world.

The MMS has collaborated with the U.S. Coast Guard throughout the environmental evaluation process and is the only other Federal agency to be officially designated as a Cooperating Agency in the approval process.

In the year 2000, Congress unanimously approved passage of the Oceans Act. This was legislation that was to establish an independent U.S. Commission on Ocean Policy charged with reviewing the state of marine-related issues and the effectiveness of Federal ocean-related laws and programs. The Commission conducted a review of Federal programs related to ocean and coastal activities during which agencies provided testimony on areas of purview, oversight, and responsibilities. For DOI, this process resulted in a greater appreciation of MMS's ocean role.

We have many ongoing and new challenges to meet and new information needs to be addressed, and look to the SC for informed input and recommendations.

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

The MMS Headquarters ESP presentation given by Mr. James Cimato provided an overview of research activities within the ESP, described ESP management processes, and highlighted research on mercury in drilling muds with an invited commentary by SC member Dr. John Trefry. In addition, the presentation laid the groundwork for the prospective program review which would occur during the remainder of the meeting.

F. Environmental Data Forum*: Think Globally, Act Locally!* Managing MMS Data, Today and in the Future.

Dr. Norman Froomer stated that during the past 30 or so years, MMS has invested over $700 million in its ESP. These efforts have produced a significant collection of information about the marine and coastal environments of the United States. Until recently, information from these studies was available only through individual paper documents, assorted CDs, and in-data warehouses, such as the National Ocean Data Center. In recent years, MMS has taken steps to make ESP information accessible digitally and through the Internet. These steps include making full-text versions of final reports available over the Internet, developing a spatial interface to studies information, and incorporating ESP data into the MMS corporate database. These efforts will make ESP data more accessible and useful to its intended audience of users, including researchers, environmental analysts, and decisionmakers.

G. Environmental Data Forum: Think Globally, Act Locally! Managing Environmental Data at a Global Level

Dr. Daphne Fautin explained that the Census of Marine Life (CoML) is an international project with four components: field projects designed to learn what lives in the ocean, the History of Marine Animal Populations (HMAP) studies, what did live in the ocean, and the Future of Marine Animal Populations (FMAP) which is designed to project what will live in the oceans. The Ocean Biogeographic Information System (OBIS) is a distributed system serving data not only from CoML field projects, but also from individuals, museums, and agencies. HMAP and FMAP both use data from OBIS and contribute to it. Dr. Fautin chairs the U.S. National Committee for CoML, is a member of the International Committee of OBIS, and was one of the original contributors of data ("Hexacorals of the World") to OBIS.

In the afternoon, the Regions met in separately to discuss national and regional studies plans.

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The SC met with the Regions and Headquarters in Discipline Breakout Groups which were devoted to discipline-based breakout sessions (ecology/biology, physical oceanography, and socioeconomics). In each breakout session, one SC member was designated as a discussion leader, and an MMS staff member was assigned to take notes.

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Discipline Breakout Groups Reports. Reports received from the previous day's breakout sessions were presented and are summarized as follows:

ALASKA OCS REGION

1. Physical Oceanography.

a. Design a study for Boundary Oceanography in the Beaufort and Chukchi Seas. This follows the recommendation of the Workshop on Physical Oceanography in the Beaufort Sea and is needed to explore solving problems of open boundary conditions for modeling; an interagency partnering is explicitly planned.
b. Mesoscale Meteorology. This model study was recommended by the Physical Oceanography Workshop and seeks understanding of sea breeze and orographic effects. This would be a phased approach with data search as the first step which is seen as valuable even if the rest can't be funded. It was suggested that partners be sought for funding model construction and testing.
c. Mapping Overflood with Remote Sensing. The Group endorsed the use of remote sensing backed with aerial surveys to delineate overflooding extent due to impacts on scour, sediments, biology, and buoyant fluxes. However, it was uncertain as the rank importance for fault tree analysis. The Group also considers river staging data for robust supplement to gauging (from 2004 report).
d. High Resolution Bathymetry. The Group feels this is important for ocean circulation, ice dynamics, and logistics. It again endorsed the phased approach with cost sharing sought for the expensive field work. The Group also strongly endorses data rescue efforts from existing recent data sets not yet available to MMS; this should be done even if partners not available.

2. Social Science. No new starts for Alaska; two proposed for fiscal year 2007.

a. Socioeconomic Book (Phase II). This study supports Alaska initiatives on education and outreach, and carrying forward key findings from the Technical Dialogue Study. MMS should consider using cultural communication specialists, and it should not mirror Phase I book.
b. Exploring Potential Visual Resource Effects from Oil Development in Cook Inlet. This study needs to include residents, tourists, and visitors in the sampling strategy as well as visualization software in methodology. In regards to ongoing Alaska Social Science studies, the Group recommended that a pool of reviewers contact journal editors for responsible peer reviewers.
c. Response Rate of North Slope Borough which would compare response rate for high school students in general.
d. Environmental Education which would acknowledge efforts.

3. Biological Studies. Alaska issues described were Beaufort Marine Fish Monitoring; SEAWiFing the river plumes; arctic cisco genetics and otoliths; and invasive species.

a. Beaufort Sea Marine Fish Monitoring should be a split design phase from implementation.
b. SEAWiFs should be an increased priority-wise for assessing primary production in this region.
c. Arctic cisco otoliths and genetics. Identifiable genetic and otolith signatures should be

verified.

d. Invasive Species. Globally, this is an important issue, but a low priority in this extreme environment.

B. GULF OF MEXICO OCS REGION

1. Physical Oceanography. Issues cited: were Hydrate Studies through Literature Search/Synthesis which would include sites, associated communities, and likely impacts, and a sensible level of pre-use activity to identify the scope of potential environmental issues.

a. Prehistoric Shell Middens. The group stated that this would be an important and rare opportunity to obtain field verification of archaeological model for prehistoric site location likelihood, and the Group endorses mission-relatedness of the study.

b. Integrated Ocean Observing System (IOOS). The group concluded that MMS has been successful in ensuring that its program needs are addressed by the National Oceanographic Partnership Program and feels that MMS should work with the emerging IOOS structure, as proposed, so that its measurement, modeling, and data format needs are considered in IOOS planning. Plans for a workshop are good; invitations also should be extended to representatives of all regional associations.

The Group also encouraged an open process for proposing pilot programs to be considered. Continued studies were also examined: Ongoing program of deepwater measurement sampling to fill in critical gaps in knowledge of deep-circulation processes is beneficial and the Group sees high value in continued international collaboration with Mexican colleagues and institutions, both through cooperative fieldwork and collaborative workshops and strategic planning which are underway.

2. Sand and Gravel.

a. The Group believes that evaluations of environmental impacts of sand borrow projects is central to MMS stewardship in the OCS, and it strongly endorses a continued sand and gravel program if sand borrow is to continue in the OCS.

b. It is also pleased to see protocols for studies of environmental impacts developed, and encourages the widest possible peer review and promulgation.

c. The Group considers the proposed ITM a good opportunity to tell colleagues about sand and gravel work and leverage efforts through collaboration; it recommends elevating the ranking of the ITM to priority.

d. The program to model for critical threshold is endorsed, as are site specific studies; also, a longitudinal study, as called for in the protocols, is seen as very important, particularly during these early days of the program.

e. Out-year studies called for in the protocols should be done, prioritizing by site as needed, with sites of multiple extractions seen as especially important.

3. Air Quality.

a. The Group agrees with the value of bringing the meteorological and air quality data, 1990-present, into a commonly used database format, with Quality Control.

b. The proposed plan to provide data in a useful format to States and EPA will strengthen valuable collaborative links.

c. Statistical analyses could be valuable, but more specifics are needed to evaluate them.

d. Proposed FY'07 Air Quality Issues:

1) The Spill of Opportunity (Synthetic-based Fluid). The Group is concerned about potential difficulty in finding the spill remains in contamination by wetted cutting, and in determining effects during early spill history. However, the Group feels that a lab-based Synthetic Based Drilling Fluid Droplet Size And Fall Velocity Study proposed as an add-on would be valuable in early time-history, and that readiness costs suggest the response should not be in "hours to days", but in "days to weeks."
2) Ultra-Deepwater Circulation Processes. The Group recognizes an opportunity to incorporate new ultra- deepwater data from MMS and Mexico into testing of circulation process models. The Deepwater Synthesis study concluded that such models were needed to understand the energetic deepwater events, many of them being of small scale. The goal of increasing model skill in process studies should be explicit.

4. Socio-Economics.

a. State and Local Fiscal Effects of the Offshore Petroleum Industry. The Group feels that this is a valuable study and that methods should (1) characterize each State's revenue and allocation mechanisms relating to oil, (2) examine historical context noting critical points of change, (3) emphasize counties, municipalities and special districts that are affected by oil, and (4) draw on fiscal impacts literature from political science, economics, and public policy.
b. An Analysis of the Oil Services Contract Industry in the Gulf of Mexico Region. The Group agreed that this is a challenging topic for data collection and that is should be approached by observation expert opinion. The study should be conducted in two phases - the first being to identify and disaggregate components of contract industry sectors, and the second phase (if Phase I is successful) being a detailed description of key sectors. The Statement of Work should include lessons learned from the Labor Needs Study and the Coastal Marine Institute's (CMI) Collaborative Study have a define timeframe, and possibly include discussion of future trends.
c. Gulf Coast Communities and the Fabrication and Ship Building Industry. This is a useful study and the Group identifies some methodological suggestions: (1) review available oral histories from the History project, (2) examine Morgan City first because of available data, and (3) include Port Aransas, Ingleside, and Brownsville, Texas.
d. Prehistoric Archaeology Shell Midden Study. The Group is supportive of this study and encourages cooperation with other agencies and institutions.
e. Socioeconomic Effects of the Offshore Petroleum Industry on Urban Communities. The Group agrees that this is a great study concept to examine literature in sociology, history, specific industries in big cities, and urban areas.
f. Environmental Risk Associated with Support Vessel Usage by the OCS Oil and Gas Industry. This study should be expanded to include transportation sector and results could be useful for management reviews.

5. Biological. There are no new biological studies proposed for FY 2006.

a. Gulf issues identified were: ultra-deepwater reef formation, including coral; debris fields from rigs; decommissioning; sperm whale prey interactions; synthetic-based drilling fluids; and the Mississippi-Alabama shelf revisited.

b. The Group recommendations included the following issues: the use of ship wrecks as analogs for drill rigs (sedimentation, contaminants); debris fields – mostly public relations; decommissioning – remind them to share with California; sperm whales and prey – endless loop of continuous questions; support lab studies and field studies on synthetic based muds; MA shelf – monitoring effort in GOM is good idea. They urge caution in making focus of study being a comparison with 1970's data.

General recommendations made by the Group include: an explanation of ranking process is needed at the outset of presentations; get to objectives and methods more quickly; MMS needs to investigate animal care issues; continued communication within regions and with external agencies; and a need for collected data to go into a standardized database (e.g. OCS Connect).

Regarding Sand and Gravel projects, recommendations were made to: review the MMS mandate to ensure that appropriate studies are conducted; clarify cooperating agency roles and responsibilities; initiate long-term monitoring needs; and raise ITM to a priority 1 or 2.

C. PACIFIC OCS REGION

1. Physical Oceanography. None.

2. Social and Economics. None.

3. Biological. The Group recognizes that the region is small in that there are only a few people.

a. Main focus of studies is on: decommissioning; alternate uses of platforms (mariculture, wave energy); interagency cooperation (MARINe); and monitoring seeps.

b. They provided the following recommendations: change rankings; support decommissioning ITM; because of interagency support, support the fish transplantation study; natural seeps (cooperation with State); relational database on seabirds and mammals; pipeline fish assemblages; reconsider phasing out CMI, but maintain it at a minimal level in case of renewed need; consider using compound specific isotope ratios on selected biomarkers; animal care issues in fish transplantation study; and share information with Gulf on decommissioning issues.

Committee Business

Items to the Director were discussed as well as other business, including the following emerging issues: continue to support the Sand and Gravel Program; review data policy; animal care policy needs to be initiated; emphasize objectives; continue to work with other agencies; high-level communication needs to continue; ESP budget; and the Energy Bill and how the MMS will be impacted.

The SC members will be polled to determine the best dates (Spring 2006) to hold the next meeting which may be held in California, New England, or the Gulf of Mexico.