

MINUTES
Fifth Meeting of the Commission on Ocean Policy
Port of New Orleans,
1350 Port of New Orleans Place
New Orleans, LA
March 7-8, 2002

Commissioners in Attendance

Honorable James D. Watkins,
(Admiral, USN (Ret.)) - Chair
Dr. Robert D. Ballard
Mrs. Lillian Borrone
Mr. Ted A. Beattie
Dr. James M. Coleman
Ms. Ann D'Amato
Mr. Lawrence Dickerson
Vice Admiral Paul G. Gaffney II, USN
Professor Marc Hershman
Mr. Paul L. Kelly
Dr. Frank Muller-Karger
Mr. Edward B. Rasmuson
Dr. Andrew A. Rosenberg
Honorable William D. Ruckelshaus
Dr. Paul A. Sandifer

Meeting Attendees

A list of meeting attendees, including affiliation where provided, is included in Appendix 1.

Thursday, March 7, 2002

Welcome

The Chair called the meeting to order at 8:30 a.m. and briefly discussed the site visits Commissioners made in the Gulf of Mexico region. After discussing the importance of the site visits, the Chair introduced Mr. Patrick Gallwey, Executive Assistant to the Director, Port of New Orleans, Dr. Len Bahr, Executive Assistant to the Governor, State of Louisiana, and Mr. Glenn Carpenter, Mississippi Department of Natural Resources who provided welcoming remarks and made recommendations to the Commissioners.

After their comments, the Chair noted that most of the Commissioners were alarmed to learn during their site visits the rate of coastal land loss in Louisiana and further noted new technologies have been critical to the identification and mitigation of the problem. In addition,

the Chair noted the Stennis Center site visit highlighted data management as one of the ongoing “focal points” for the Commission, not just in the Gulf, but nationwide. The ability to effectively manage the ever increasing flood of environmental data is critical to solving current environmental problems and to preventing future problems.

Public Comment

Because the Commission was ahead of schedule, the Chair opened the floor to Public Comment before the first panel of invited Speakers.

Mr. Pete Emerson with Environmental Defense (ED) discussed Individual Fishing Quotas and Marine Protected Areas with the Commission. The Gulf of Mexico is a unique area with a unique group of fisheries. The Region has many problems and placing Individual Transferable (or Fishing) Quotas (ITQs/IFQs) back in the toolbox will help to solve them. Many stocks, such as reef fish, are overfished and because of the open access nature of the fisheries, a “derby” atmosphere exists where fishermen are forced to catch fish in a wasteful manner. If they don’t, their competitors will. This situation has led to a large amount of waste in the region’s fisheries. ED recommends that the Ocean Commission ask Congress to remove the existing moratorium on new ITQ programs. ED estimates indicate that there would be a 46% increase in revenue and almost 1.8 million red snapper would be saved every year if ITQs were allowed in this fishery. As part of removing the moratorium on IFQs, Congress should institute a national policy to guide IFQ implementation. In addition to IFQs, Marine Protected Areas (MPAs) have been, and should continue to be used in managing fisheries. Scientific evidence exists to indicate that MPAs can reduce bycatch. Overall, the use of IFQs and MPAs can help to alter the behavior of fishers to conserve stocks, rather than overexploit them.

Dr. Wes Tunnel of Texas A&M University at Corpus Christi discussed with the Commission the importance of the Gulf of Mexico region and the need to continue to focus research on how to best utilize this resource. The Gulf of Mexico is unique and the most economically productive body of water in the United States. Oil revenues from the Gulf are the second largest source of revenue to the U.S. Treasury. New Orleans and Houston are two of the most active U.S. ports, the fisheries of the Gulf are among the largest in the United States, including the single-most valuable fishery, the coastal population in the region is among the fastest growing; and the military has a large and growing presence in the region.

The key challenge for managers is to ensure that the value of the Gulf of Mexico to the United States is not diminished. Accomplishing this task will require dependence on a wealth of intellectual resources related to understanding the dynamics of the Gulf of Mexico ecosystem. In the future, we must continue to advance our knowledge of coastal ecosystems.

A recent report in the journal *Science* stated that overfishing is the greatest human-related threat to the Gulf of Mexico ecosystem. Reasons for this general failure to properly manage living marine resources include inadequate funding, ineffective use of existing funding sources, and radical changes in direction of funding due to elections.

Texas A&M University has played a longstanding role in research on the Gulf of Mexico ecosystem, and the recently founded Harte Research Institute and other academic centers will continue the tradition. It will continue to be necessary to marshal the intellectual resources of the Gulf of Mexico region into a coordinated program if we are to improve our success in managing these resources. The laws governing natural processes do not necessarily follow human-made constructs, therefore funding for the science to discover natural laws should attempt to match resource management needs.

Steve Kolian discussed the potential use of oil platforms to provide Essential Fish Habitat, substrate for corals, and habitat for endangered species such as sea turtles. Every year for the next 100 years, 40 platforms will be removed from the Gulf as required by law. Instead of being viewed as negative influences on the Gulf environment, rigs should be viewed as environmentally beneficial and allowed to remain in the water. Mr. Kolian discussed how the Japanese government uses many platforms as the part of their artificial reef program, including open ocean ranching operations. Also, there are over 800 platforms located in the area referred to as the “dead zone” and they often have large populations of organisms associated with the platforms. In addition, since many of the platforms have excess energy, one could put giant “air stones” under these platforms to enhance the oxygen content in the deadzone. With regards to coral species, the platforms have been shown to have many species of hard corals present in the Flower Garden Banks. These populations should be seen as a potential source of re-colonization if there is ever a population crash at Flower Gardens Banks. Mr. Kolian recommended that the Magnuson-Stevens Fishery Conservation and management Act be changed to allow the possibility of platform as to be designated Essential Fish Habitat. Furthermore, the Commission may wish to explore the importance of platforms habitat to endangered species such as sea turtles and jewfish.

Science and Education Panel

Dr. D. Jay Grimes – Dean and Director, College of Marine Sciences, The University of Southern Mississippi - Oceans and Health: Understanding and Mitigating Trends and Linkages

Dr. Sharon H. Walker – Administrator, J.L. Scott Marine Education Aquarium – Marine Education Issues and Needs for Grades K-12

Dr. J. Robert Woolsey – Director, Center for Marine Resources and Environmental Technology, The University of Mississippi – The Shallow Hydrocarbon System within the Hydrate Stability Zone of the Gulf of Mexico

Following the formal presentation of the panel, the Commission asked several questions. Dr. Grimes was asked whether the United States currently has systems in place to monitor microbial organisms in the ocean, if existing technology is up to the task, and how much such systems cost. Dr. Grimes answered that a large-scale system to monitor microbial organisms does not currently exist but that development of such systems is a distinct possibility. There is no current estimate of the cost of such a system, but initial development costs would likely be high. However, costs for such systems decline over time. Dr. Grimes also mentioned that the current focus on developing mechanisms to detect biological agents of potential use to terrorists could have benefits for developing a marine microbial detection system since many of the techniques are similar. We are on the verge of having all of the pieces in place; we need to focus on a logical

way to coordinate all of the various research that is being funded by agencies such as NSF, DOE, USDA, and EPA into a coordinated program to quickly develop this monitoring capability. Following this response, the Commission noted that now is the proper time to look at the best way to bring together the human health community and the ocean community, at least to the extent that their mutual interests overlap. It will be a challenge for the Commission to recommend the best mechanism to accomplish this goal.

The Commission asked Dr. Walker whether the “Centers of Ocean Sciences Education Excellence” model is the correct one for increasing knowledge about oceans among students. Dr. Walker replied that she believes that it is, but that this idea needs to be funded at a greater level so that more centers can be designated. She recommended that responsibility for this be transferred to the National Oceanographic Partnership Program (NOPP). She concluded by stating that in order to provide adequate coverage, there should be 20 “Centers of Excellence” throughout the country, including several interior, non-coastal centers.

The Commission asked Dr. Woolsey about the status of the Department of Energy’s research efforts on gas hydrates, not just on exploitation technologies, but also potential negative environmental impacts and ways to prevent them. Dr. Woolsey answered that DOE is doing the best it can with limited funds. He further noted that while the resource is indeed huge, there are also huge scientific and technological problems that must be solved before it is possible to safely and economically exploit this resource. A “follow-up” question asked if there is a coordinated federal research strategy. Dr. Woolsey answered that efforts are underway to develop such a strategy, but it is at the initial stages. So little is known, and current research indicates the properties of gas hydrate deposits are incredibly site-specific, and that it is unclear what general direction that a research program should investigate. The Commission noted that while scientists may want to develop a research program without many strings attached, totally non-directed research programs are a “hard-sell” to agencies and especially to Congress. There will have to be at least some milestones identified before this program will receive increased funding. The Commission asked Dr. Woolsey in the future to provide some possible milestones that could be used to direct research on gas hydrates. Dr. Woolsey replied there are many entities involved and he will take this request to those entities. The Commission noted that if technology could solve current economic and environmental problems associated with exploitation of these resources, it could have profound impacts on the current worldwide energy regime. The Commission asked how the U.S. compares with other nation’s programs to exploit gas hydrates. Dr. Woolsey replied that while the U.S. continues to be a leader in “intellectual rigor” applied to the problem, other countries such as Japan and European communities have more focused programs and spend more money on research. The U.S. funds research on this area in “bits and pieces.” One particular area that needs attention is the tremendous environmental problems that may be potentially associated with gas hydrate extraction. Gas hydrates are a buffer between the ocean and the natural gas contained below the hydrates. Removal of the hydrates may liberate massive quantities of the gas below, to the ocean and eventually the atmosphere. Some preliminary thoughts are that it may be possible to repair or extend the buffer, but again, the site-specific nature of gas hydrates makes it difficult to apply generalities.

Dr. Walker was asked if the strategies she is advocating could be applied to more than just marine “science” education, but rather all types of education concerning the oceans, including

history, literature, economic, technology and others. Dr. Walker replied that using “water” as a unifying theme for an ocean-based, interdisciplinary curriculum could be applied to any field, not just science. She said that water “catches the soul” and it is important not to “pigeon-hole” knowledge, but rather look at a more holistic approach when teaching. Dr. Walker clarified that she believes that this holistic approach could be used to teach the humanities as well as the sciences.

The Commission noted that it was distressing to learn that NIH was the major funding source for marine microbial research and asked Dr. Grimes for his recommendations to link ocean health and human health research in a coordinated manner. Dr. Grimes replied that getting NIH to participate in the NOPP process is one way to tackle this problem. The Office of Naval Research should also be involved. The Commission noted both NIH and NSF focus on human health and basic research, but not ocean-related research; it will be important to get the agencies that fund basic research to address ocean health as well as their current priorities.

The Commission asked Dr. Walker the best way to incorporate marine education in the *National Science Education Standards [NSES]* (1996) and whether marine educators have a strategy to accomplish this process. Dr. Walker replied that the National Marine Educators Association, the National Science Teachers Association, and the Marine Technology Society are working to develop a strategy to include marine science into the *NSES*. She re-stated her position that using water as a unifying theme would provide an effective rationale for placing marine science within the *National Science Standards*. She also mentioned the AAAS developed *Benchmarks* (1993) and these *Standards* do include ocean topics. The Commission asked Dr. Walker a related question on what marine science educators are doing at the high school level. While it is important to teach science to younger kids, something negative is happening at the high school level because students are not entering college science programs as much as they did in previous years. Dr. Walker answered there are many reasons why this situation is occurring; some of these reasons include: lack of training and funding; professional development programs within school districts for in-service teachers and inadequate course requirements for pre-service teachers; a lack of curricular materials which are exciting and aligned with the *Standards*; and many science programs are taught by teachers that lack experience or training in the specific fields. In addition, society has placed too many responsibilities on teachers to do much more than teach in this country’s classrooms. Often, too much of a teacher’s time is consumed by issues other than teaching itself. Due to these and other factors, teachers don’t have the time to develop effective, compelling, stimulating, and/or interesting interactive lessons that could draw students into the fields of science.

The Commission asked Dr. Walker to expound upon the proposed National Education Outreach Office. Dr. Walker responded that “housing” this office within NOAA has great possibilities, but early efforts have shown some problems. To be highly effective, an office of this type needs to be able to count on inter-agency cooperation to develop a common focus for formal and informal educational programs. However, it has often been problematic to gain the cooperation of individual line offices within, for example, NOAA. This National Education and Outreach Office could also be housed at NOPP, CORE, Centers for Ocean Sciences Education Excellence (COSEE), or Ocean.US.

The Commissioners noted that Federal agencies have a variety of mechanisms to interact with each other and form the necessary connections to accomplish tasks. Some of these work well, others not well at all. Dr. Grimes was asked to explain how the industry is connected. Dr. Grimes responded that the industry is linked together both by design and by accident. As the science has developed in his field, companies that see the profit potential in research on microbes have formed the necessary connections to accomplish their business goals. This can include forming partnerships to develop technology to take advantage of existing research, or investing directly in related basic research. Dr. Grimes explained the critical need to develop mechanisms to promote a more coordinated research program on microbes. Currently, it is estimated only 0.1% of all microbes have been described by scientists. We need a worldwide data structure to support scientific research on microbes.

The Commission noted there is often a disconnect between the information needs of the public and the availability of scientific information to address these needs. Dr. Walker was asked her views on ways to help correct this dilemma. She responded there is little communication between the world of scientists and the world of educators. Scientists often do not talk to anyone other than colleagues in their own specific field. While teachers are eager to pass on scientific discoveries, they need the information relayed to them in a usable format. Dr. Walker suggested that educators need a better way to communicate their needs to scientists. In addition, she mentioned that teaching is often undervalued by the research community. Some researchers often believe that time spent in service or teaching (outside their respective graduate/undergraduate courses) takes away time from their research. This situation is too often the result of the tenure and promotion process which values teaching and research “more than” service.

The Commission noted that NOPP is working to develop a “virtual common database” which no one entity would own. Instead, the database would be a collection of existing databases that would be accessible to the National Marine Educators Association, AAAS, and other education forums. It was suggested that it might be possible to bring the two fields of science and education together through the proper design of a common database. Scientists would design the manner in which data enters the database, and educators would design how the interpretation of those data would flow from the database. In this way, the database would be useful to both sides and “bridge” the existing gap between scientists and educators. Dr. Walker said this idea could be a way to bring these two communities together. Teachers would need to be on the ground floor so they could share with the researchers exactly what they want “on the other end” of the database.

Commissioners noted the COSEE program within NSF is grossly under funded and the need to bring in the educational establishment is critical. Dr. Walker was asked what role the Department of Education has been willing to play. Dr. Walker responded that she is not sure what the role of the Department of Education is, but they do need to be involved, possibly as a sustained funding source for ocean sciences. Dr. Walker also noted the U.S. Department of Education and State Departments of Education are heavily involved in student achievement, student safety, facilities’ maintenance and expansion, and teacher accountability.

The Commission noted the nexus of ocean policy and ocean health has no real home within any one agency, thus no focal point for advancing research in this area. Dr. Grimes was asked what

agency should be the home for such a program. Dr. Grimes answered the funds for such research is derived from many agencies and overall, with the exception of some problems related to agency “turf,” funding has been good. However, the overall focus of research is lacking. For example, even looking at just one microorganism, fecal coliform, the USDA and EPA look at completely different indicators. Dr. Grimes suggested getting the various agencies with human health responsibilities to come to the table and discuss the matter.

The Commission asked whether other agencies or states try to engage educators to address reforms with regard to marine education programs. Additionally, is there a network among states so that they have some way of coming to Washington, D.C. with a unified voice or vision? Dr. Walker replied that she works with the National Marine Educators Association, the Marine Technological Society, and the Mississippi Science Teachers Association. In addition, there are plans to hold an educational summit in the near future which would bring all science education groups together with the media, scientists, and agencies to discuss what each group needs from the other in order to improve the ocean sciences education curriculum. This summit would allow improved coordination and focusing of missions both within and between agencies.

Maritime Transportation Panel

Mr. James T. Edmonds - Chairman, Port Commission, Port of Houston Authority – Current and emerging port issues and national ocean policy

Mr. Robert Thompson – President, Louisiana Offshore Oil Port (LOOP) – Louisiana Offshore Oil Port: An overview

Mr. Richard McCreary – Group President, Friede-Goldman-Halter Company – Ocean policy from the perspective of the oceanographic shipbuilding industry

Mr. Stewart Wade – Vice President, Marketing Development and Communications, American Bureau of Shipping – The role of classification within maritime safety

After the formal presentations of the panel, the Commission asked several questions. Mr. Edmonds was asked on the best way for the United States to address the problem of non-indigenous species introduced via ballast water. He replied that the ports are taking a broad-based approach by working through the American Association of Port Authorities. Worldwide, there is not much receptivity to addressing this issue. He suggested that the Congress may have to become involved to solve this issue. Mr. Wade pointed out that the International Maritime Organization’s (IMO) Marine Pollution and Environment Committee is also exploring potential solutions to this issue. The concern that the IMO and shippers have with many of the proposed solutions is that they place stress on the ships structural integrity, particularly when the ship is underway with uncertain and variable conditions that exist while at-sea. Current proposals could threaten the safety of not only the ship, but the crew as well. The Commission asked Mr. Wade if the IMO will have a report on this issue in time for consideration by the Commissioners. Mr. Wade said that the report is due in two weeks and suggested the Coast Guard as a point of contact to get a copy of the report.

The Commission asked what procedures are currently in place to protect the nation’s waterways. Mr. Edmonds replied that the Coast Guard has procedures in place but that they are not adequate

in many cases because the Coast Guard does not have sufficient personnel. He pointed out that much of the 52 miles of the Houston Ship Channel is under-protected.

Mr. Thompson was asked about the amount of increased volume the LOOP could handle. He responded that under its current configuration, the LOOP could handle an additional 200,000 barrels of oil a day from its current 1 million barrels a day. He remarked there are plans for increasing the capacity of the LOOP to handle almost 2 million barrel a day in the first phase of expansion, and in the final phase, the LOOP could be configured to handle 3 million barrels a day. However, before any of this expansion could start, the LOOP would have to have a commitment from suppliers to deliver a predictable supply of oil in order to make the expansion economically feasible.

The Commission noted that a continuing theme in the meetings so far has been the need to base resource management decisions on the best science using the best technologies wherever possible. This is particularly true for fisheries managers. Given this, the Commission asked Mr. McCreary about the timeline for building new fisheries research vessels. Mr. McCreary responded that one is currently being constructed with money already appropriated, and one is being planned for construction with funds requested in the Fiscal Year 2003 budget. Two additional vessels, for a total of four, were planned for construction.

The Commission noted that many government boatyards are having a tough time remaining profitable. The Commission asked Mr. McCreary how private boatyards are faring at this time. Mr. McCreary responded that private boatyards use a variety of strategies to stay in business. Halter Marine has focused their attention on three major customer segments: 1) government contracts; 2) the Jones Act trade; and, 3) the energy sector. Each of these segments is on different cycles. Energy is currently on a down cycle with little demand for additional vessels, but this is expected to change in the next 2-3 years. Following OPA '90 and the strict requirements for domestic vessels, demand for the Jones Act trade increased dramatically, but now is also down. In spite of these strategies, the industry will face capacity problems, particularly for small and medium sized vessels.

The Commission asked which agency should have the authority for port and waterway security. Mr. Edmonds replied that the Coast Guard is currently the lead agency for this responsibility and should remain so. They currently have all the legislative authority they need to address the challenges they face at the Federal, state, and local level.

The Commission asked Mr. Edmonds if the United States really needed all of the ports it currently has, especially in light of the increased security requirements to protect from additional terrorists attacks. Mr. Edmonds responded that ports are economic engines. In Texas, they generate over 200,000 jobs and billions of dollars of revenue. Smaller ports create jobs as well.

The Commission noted Mr. Thompson's testimony on the importance of having a lead agency for permitting to the success of LOOP. This is indicative of the overall goal of the Ocean Commission – how do we structure government to make ocean policy efficient? Mr. Thompson was asked whether the United States needs a lead agency for offshore energy permitting or can we accomplish the same goals via better coordination among agencies. Mr. Thompson

responded that in the case of LOOP, the statute gave explicit authority to the Department of Transportation, and also gave them increased authority to coordinate their actions with other agencies. Mr. Thompson stated his uncertainty on whether the relatively smooth permitting process for getting LOOP up and running would have been possible without the state. The Commission noted that Mr. Thompson was being too generous; in other cases, it is the industry that acts as the coordinating body for permitting issues, not the involved agencies. The Commission asked again whether or not it will always be necessary to raise the importance of permitting via explicit statutory authority. Mr. Thompson replied that it worked well in the case of LOOP

The Commission asked Mr. McCreary if it possible to quantify the number of unsafe, single hull vessels. He replied that the Coast Guard does track this for vessels that carry oil, but it does not track it for vessels that carry chemicals.

The Commission asked Mr. Edmonds how many ships are investigated before they come into US waters and how many are physically inspected. Mr. Edmonds answered that for U.S. vessels traveling to U.S. ports, none are inspected. For vessels coming from foreign ports, 60 percent are investigated in some way. As far as containers, currently 3 % of all containers are inspected using gamma ray detectors; the goal is 5%.

The Commission asked Mr. Edmonds if there are any efforts at the community level since September 11th to develop an estimate of the cost associated with implementing increased port security measures. Mr. Edmonds replied that they have some initial ideas based on data from other port emergency plans, but no real estimates. For now, the costs of increased security are being absorbed by the ports and no alternate funding source has been identified. A follow up question was asked concerning the need for federal involvement in ensuring the security of our nation's ports. Mr. Edmonds answered that there is a tension between the need for increased security and the need to move cargo as quickly as possible. Any planning or funding for increased security needs to be tailored to each port on a case-by-case basis. Mr. Thompson added that since September 11th, ports have been informally meeting with six Federal agencies and have formed a working group to address this issue.

The Commission noted that the U.S. Coast Guard is developing technology for on-board sterilization of ballast water. The Commission asked Mr. Wade his evaluation of these developing technologies with regards to their safety. Mr. Wade replied that that the private sector is looking into it but that none of the current proposals have emerged as cost-effective. In addition, he said that the current efforts are being done without any coordination between U.S. agencies and the IMO.

The Commission asked Mr. Edmonds about the potential value of Harbor Safety Committees to promote the coordination of security measures at local ports. Mr. Edmonds replied that believes this would be a positive development and that Harbor Safety Committees work very well in Houston.

The Commission noted that because of a combination of geological realities and political choices, the United States will be importing greater quantities of oil in the future. The

Commission asked, what are the major infrastructure impacts of this choice and are there any plans for a “Texas LOOP.” Mr. Edmonds replied that at the public level, many ports will have to be widened and deepened to handle larger container vessels. Most of the other infrastructure changes will be done by the private sector. With regards to a Texas Offshore Oil Platform, Mr. Thompson replied that at this time, only feasibility studies have been done.

The Commission noted that with several recent events involving substandard ships, many governments are rethinking the way in which they approach ship safety standards. Mr. Wade was asked to comment on this. He replied that an incident in France in 2000 was similar in its effects in Europe to the effects that the Exxon Valdez grounding had in the United States. In general, the industry is very safe, but not perfect – and the public wants perfection. This has led to a constant drive to improve technical standards to improve safety. In many of the incidents, the accidents were caused by human error and therefore much of the research has been on technologies and procedures to counteract the potential for human error as much as possible. However, this type of research takes time in order to actually raise the effective level of safety. These efforts on the part of industry are always ongoing, but large casualties, such as Exxon Valdez, crystallize these efforts. Mr. Thompson added that he has seen a tanker every day for the past 10 years, and the quality has constantly improved. He further noted that, at least for trade with the U.S., ship owners may be sending only their better, newer ships to U.S. ports.

The Commission asked Mr. Thompson if the LOOP is a for-profit organization and would any expansion plans involve private or public funds. He replied that it is a for-profit entity owned by five companies but may be used by any company wishing to use the facility. Any expansion plans would involve private funds; the companies would only expand if there could be an agreement on the volume necessary to make the expansion economically feasible.

The Commission noted that some of the discussion with this panel has touched on the need for a “lead agency” for energy facility development. The term “lead agency” could mean many things: the lead for decision-making authority, the lead for coordination among agencies. Mr. Thompson was asked in what context he is using the term. He replied that he is using the term to mean that there should be a lead agency for all permitting decisions.

The Commission asked the panel members to comment on the utility of using automated vessel identification systems to aid in security of maritime traffic -- Should the Commission recommend a larger effort in this area. Mr. Edmonds said that he believed greater efforts should be made in this area. Mr. Wade replied that this idea is also going higher up the chain at IMO. As far as technology goes, it is easy to remotely “interrogate” the vessel for its location, speed and course. The question that the IMO is considering is whether it should be required for ships as standard equipment. Although a final decision has not been made, Mr. Wade believes the industry is generally supportive.

Coastal Land Loss Panel

The Honorable Jack Caldwell - Secretary, Department of Natural Resources, State of Louisiana – Coastal wetland loss in Louisiana

Mr. Mark Davis – Executive Director, Coalition to Restore Coastal Louisiana – Wetland issues in coastal Louisiana

Dr. Nancy Rabalais – Professor, Louisiana Universities Marine Consortium – Hypoxia in the Gulf of Mexico: causes, extent and environmental impacts

The Commission commended the state of Louisiana for having a plan to address coastal land loss and asked Mr. Caldwell to outline some of the tasks involved in saving coastal land. Mr. Caldwell replied that the tasks are spelled out in the Coast 2050 report. The initial strategy for restoration started with mapping each basin and determining what was needed in each area. Types of projects included creating a freshwater diversion or barriers. Then, given past experience in implementing these types of projects, a cost estimate was created based on the inventory for each basin. The total cost estimate came to \$14 billion dollars, a figure in which the state is confident. The state is now doing the engineering studies.

The Commission noted that the federal government pays farmers not to farm certain land and has developed subsidies and other incentives that lead farmers to over fertilize their land. Dr. Rabalais was asked if anyone is looking at this problem in relation to the dead zone in the Gulf of Mexico. Dr. Rabalais replied that there are efforts underway that would seek to change incentives with the goal of taking more land out of production, and thus reduce the amount of fertilizer in the Mississippi River watershed.

The Commission asked Dr. Caldwell to explain the allocation of funds under the Conservation and Reinvestment Act (CARA) if it were to be signed into law in its present form. Dr. Caldwell stated that CARA would reinvest a portion of OCS oil and gas revenues back into impacted states. He noted that seven states carry the burden of offshore oil and gas development but the funds from these operations go directly into the general treasury – the affected states don't get a dime. However, oil and gas development creates jobs over the entire country because the energy industry is supplied by companies from every state.

Dr. Rabalais was asked about a statement made during public comment that it may be possible to use excess energy from Drilling platforms and aerate portions of the dead zone to increase oxygen supply. Dr. Rabalais commented that the amount of oxygen introduced by these methods would be inconsequential to the scale of the problem.

The Commission asked Mr. Davis what specific measures he would recommend to the Commission regarding management of fisheries and other living marine resources. Mr. Davis replied that management of fishery resources is complex and the current approach focuses on single-species management. He mentioned that fishery managers do not consider other factors, such as a decline in estuarine production, which could lead to a collapse in fisheries. Additionally, the role of habitat and the need for adequate numbers of forage fish is rarely considered. At one time, coastal land loss was seen only as an issue for “environmentalists” but as the Commission has seen, it is now an issue that is important to local communities, the economic health of the state, and in some cases the actual survival of some coastal towns. He

concluded by stating that fishery managers need to look at survival of the fundamental resources necessary to an ecosystem rather than focusing on the “care and feeding” of constituents.

The Commission asked Dr. Rabalais to comment on the possible explanations for the diminished size of the dead zone in the year 2000. She stated that the low flow of the Mississippi River was the most likely explanation, but the “benefits” of decreased flow were not as high as one might expect because the concentration of nutrients in the water is increasing every year.

The Commission noted that protection and restoration of riparian habitat has been mentioned by several speakers in past meetings. Dr. Rabalais was asked if she has been working with partners in the watershed to improve riparian habitat. She replied that these issues are being looked at throughout the watershed in cooperation with various partners. She concurred that riparian habitat can be an important component to improving the health of the watershed.

The Commission asked Mr. Davis to clarify his answer on fisheries management, particularly with regards to cross cutting issues such as pollution and coastal restoration -- what should the federal government do differently? Mr. David replied that, in his experience, fishery management is designed to manage “bits and pieces” of the ecosystem, and not the whole. We tend to look at fish as something that happens to be in the ocean. Given this view, fisheries managers cannot respond to other factors related to the health of the Gulf of Mexico

The Commission noted that in their flight to and from their site visit, they saw the mostly negative impacts of 100 years of coastal land use related to oil exploration and development. Mr. Caldwell was asked how much of the COAST 2050 money will go towards improving the skill of coastal engineers. He replied that the funds used for this purpose would, in general, scale with the workload devoted to coastal engineering (not all of the projects necessarily involve coastal engineering). However, he also stated that Louisiana leads the world in coastal science and engineering. He mentioned the creation of a new Department under Commissioner Coleman as an example. In addition, even before federal funds have been identified, the state of Louisiana already has 44 engineering firms under contract. Dr. Caldwell stated that, because the situation is so bad, when the money does come, the state has to be ready to implement immediately. Hydrologic data is now routinely collected; a few years ago this was rarely done. As the project proceeds, scientists would check the response of the marsh to changes in the Mississippi River and thus be able to tell the best ways to promote wetlands growth to counteract coastal land loss. The monitoring systems to accomplish this are in place.

The Commission noted that, in the three regional meetings so far, there has been much dissatisfaction with cooperation on both horizontal (between federal agencies) and vertical (federal agencies with state and local governments) planes. The Commission asked Mr. Caldwell his thoughts on what works and doesn't work to promote cooperation and integration among various levels of government. Mr. Caldwell responded that addressing this issue is an idea “whose time has come.” He noted that in his experience, federal agencies stay dormant until the political environment is “safe.” Because of this, state and local agencies spend much of their time trying to convince the agencies that it is safe for them to work with local entities. To overcome this inertia, the specific people within an agency often are more important than their

position within an agencies organizational structure – good people at a lower position are easier to work with than ineffective people at higher levels. He pointed out that some agencies, specifically the Corps of Engineers, have become easier to work with.

The Commission noted that CARA has been around for at least ten years, but, in spite of the fact that it reallocates existing funds and does not require new funds, something always seem to block its passage. Recent arguments have been made by some that passage of CARA may encourage more oil exploration. The Commission asked Mr. Caldwell to respond to this concern. He replied that CARA would freeze the existing funding formula so that states would not have an incentive to drill more off of their coast. Mr. Caldwell believes that in the last Congress, CARA was stalled because of western Senators concerns about the possibility of increased land acquisition, in spite of the fact that CARA provides greater protection for private landowners than currently exists.

The Commission noted that in his written testimony, Mr. Davis asserts that the major barrier to improving the stewardship of the Gulf of Mexico is institutional. The Commission asked what specific institutional structure is the problem. Mr. Davis answered that agencies have been assigned traditional boundary lines across which they rarely venture. As an example, he stated that 10 years ago if someone had approached the Corps of Engineers with a request for help to restore coasts, the Corps would have said no. In addition, 40 years ago there was not a single agency tasked with the responsibility of tracking loss of wetlands. Instead, citizens led the way and agencies have just begun to catch up. The 1989 law creating CWPPRA is a good template for the way things should work. The Act provided money, authority and set up a crosscutting task force to develop the COAST 2050 plan. When asked a follow up question on whether the institutional problem has now been solved, Mr. Davis replied that, with the exception of CWPPRA, the problem has not been solved. Agencies still act through their own authorities – to address watershed problems, the EPA tends to believe that it cannot go up the river, while the USDA believes it cannot go down the river. There needs to be reform. The Commissioners noted that existing law does often give agencies authority to do more, but that there is no plan for expanding beyond current programs.

The Commission noted that Dr. Rabalais suggested that wherever possible, voluntary incentives should be used instead of mandatory regulations. If it is true that reliance on regulations does not tend to work well, what should the Commission recommend? Dr. Rabalais restated her belief that tremendous strides have been made in addressing the hypoxia problem in the Gulf of Mexico. While legal issues drove the first meeting of her group, Dr. Rabalais expressed her belief that the Hypoxia Action Plan would not exist today if they had attempted to rely on regulations instead of voluntary incentives.

The Commission asked Mr. Davis if expanding the USDA's authority to include wetlands was a necessary component of the COAST 2050 plan. Mr. Davis responded no – because of the work that has already been accomplished in Louisiana, it is not necessary to expand the authority of the USDA. However, this situation exists only here; in other areas, there is still a need to create a more holistic approach to address watershed problems. In the case of Louisiana, having a holistic, rather than a single nutrient, approach helped facilitate the discourse. Mr. Caldwell expanded upon this answer to say that in Louisiana, most of the necessary preliminary steps have

been accomplished. When dealing with federal agencies, their strategy was to work with only low-level, local personnel to avoid upsetting the Washington, D.C. crowd. However, they are at the point where they do have to work with the Washington, D.C. crowd in order to get the funding by Fiscal Year 2004.

The Commission noted that during their site visit to the Chesapeake Bay, a place where the environmental community has been working for well over 15 years to improve water quality, it is still the case that only 27 of 100 sewage treatment plants have secondary treatment, and only 1-2 plants have tertiary treatment. The outlook for increasing these numbers is not good due to the fact that most of the land bordering the Bay is private. In addition, the nutrient load from Indiana is much too high for local efforts alone to reverse water quality problems. It will take a massive, mutual effort to solve this problem. It may be useful to look at this along the lines of a massive infrastructure development program, such as President Eisenhower initiated with the Interstate Highway System, rather than view it as a purely “environmental problem.” Dr. Rabalais agreed that our response does need to be coordinated if it is to be effective. It will be necessary to look at all related laws including the Clean Water Act and the Clean Air Act. Right now, the dialogue between the necessary parties is working, but there is no funding to make it happen. Dr. Rabalais noted that if we were to work with upstream farmers to reduce nitrogen application by 12%, we could reduce the load received by the Gulf of Mexico by 30% with no loss in farm productivity. The Commission noted that these issues should be brought before the governors at a proposed fall meeting of the National Governors Association.

Concerning the lack of coordination by the federal government, the Commission noted that the Federal government is only responsive to situations that require them to work together if it is in the self-interest of local personnel or if an agency’s jurisdiction is threatened. There needs to be a cultural change at federal institutions to correct this situation. Ideally, there should be a commitment on the part of the federal government to match the needs of a watershed. To accomplish this, there will have to be a set of incentives and educational programs within federal institutions. Mr. Davis was asked to comment on this and he replied that this summarizes the problem very well. The National Ocean Strategy should involve more than states. LUMCON was looking at the entire system; without this, Mr. Davis believes that the cause of the problems in the Gulf would not have been caught as early as they were. As was noted, a cultural change needs to begin within each agency.

Living Marine Resources Panel

Mr. Wayne Swingle – Executive Director, Gulf of Mexico Fishery Management Council – Federal commercial and recreational fisheries management

Mr. Larry Simpson - Executive Director, Gulf States Marine Fisheries Commission – State commercial and recreational fisheries management

Ms. Cynthia M. Sarthou - Executive Director, Gulf Restoration Network – Protected species and areas

Following the formal presentation of the panel, the Commission asked several questions. The Commission noted that they have heard from several sources that user groups do not feel represented in the Federal Fishery Management Council process. In some areas, commercial fishing groups complain, in other areas, recreational groups complain, and in all areas, environmental groups complain that they are under-represented on the council. Mr. Swingle was asked, given that Governors may feel pressured to service certain political constituents who choose many Council members, is it ever possible for the Councils to be truly representative of all the users in a fishery? Mr. Swingle replied that the Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA) provides for fairness in council appointments. In spite of that, the current roster of the Gulf Council has only 3 of 11 seats occupied by representatives of the commercial fishing industry. The reason for this is that the Secretary of Commerce, who appoints Council members, has to appoint members from lists submitted by the Governors. If the Governors do not nominate a balanced list, it is very difficult for the Secretary to appoint a balanced Council. In his experience, he has heard some say that there may be the need to add language to require that an environmental representative be appointed to the Councils. The Commission noted that one avenue of insuring more fairly balanced councils is to place some of the regulatory language into to the MSFCMA.

The Commission asked Mr. Simpson to describe the education and outreach efforts of the Gulf States Marine Fisheries Commission (GSMFC). He replied that he believes it is incumbent on all management and science agencies to do their part to educate the lay public. Towards that end, he described a recent effort by GSMFC to work with local seafood restaurants on a placemat design that described the fish and fisheries of the Gulf of Mexico. The Commission requested that he send an example plus other outreach materials that the GSMFC has developed.

The Commission asked Mr. Swingle to describe how federal monies are allocated regionally for fisheries data collection. He replied that he does not know how this is done by NOAA, but for the EPA, the Gulf of Mexico gets one-third the amount that the Chesapeake Bay receives. This is especially ironic because many of the blue crabs sold in Chesapeake Bay restaurants are in fact from the Gulf of Mexico. Politics currently plays a big role in determining where the money goes in fisheries. Ms. Sarthou added that it appears that the Gulf of Mexico is not valued on the national scene in spite of the importance of the Gulf ecosystem.

The Commission noted that Mr. Swingle has been involved in the Council process from its very inception, and asked him to relay his thoughts on what he would do differently. Mr. Swingle replied the biggest problem the councils had until fairly recently is that the National Marine Fisheries Service did not want to provide the necessary information to the Councils for them to be able to do their jobs. The Councils had to approach NMFS in order to get management information. Another item that needs fixing is the need for more than just two people nationwide at NMFS that conduct socio-economic research. Finally, Mr. Swingle stated that it was often the case that NMFS conducted stock assessments only after the Councils developed Fishery Management Plans (FMP); it should be the other way around. Mr. Simpson added that he would recommend that the Commissioners consider combining the expertise of the Fish and Wildlife Service and the NMFS into one agency.

The Commission noted that Ms. Sarthou's testimony highlighted a problem described in other regions – serial overfishing. When regulations “clamp” down on one fishery, fishermen often just move to another, unregulated fishery. In addition, under the MSFCA, the agency has little leeway if a flawed FMP is submitted by a council. The NMFS can either approve an FMP in spite of its flaws so that at least some protections for the resource are in place, or disapprove the FMP and leave the resource unprotected. In addition, there is no mechanism to force Council action to develop an FMP. Ms. Sarthou was asked if she or her organization had any recommendations on how to prevent this problem. Ms. Sarthou replied that one avenue to explore would be for agencies to be required to look at fisheries on an ecosystem basis such that managers would be required to describe the impacts of an FMP on other species, including the possible impact of displaced fishermen targeting other species. The Commission noted that even if an “ecosystem plan” existed, if NMFS were to disapprove an FMP, basic protections for the resource could still be lacking.

Currently, the NMFS does not have the authority to collect most types of socio-economic data. The Commission asked if there are any estimates on the size of program that would be needed to collect such data. Mr. Simpson replied that CORE has a recent report on these costs. In addition, the GSMFC is collecting some socio-economic data. Mr. Swingle replied that the Gulf Council has asked the Secretary of Commerce to separate out data on fishermen on the U.S. Census; this one step would provide a lot of data to the Councils and NMFS.

Ms. Sarthou was asked to expand upon her testimony concerning the negative coastal impacts of the Federal Flood Insurance Program – what specific changes would she recommend? Ms. Sarthou replied that the current flood insurance program removes market forces from coastal development decisions. Without coverage under the flood insurance program, it is often not economically feasible for developers to build in sensitive coastal areas that are susceptible to frequent flooding. However, if they are eligible for the federal flood insurance program, this subsidy allows people to build in areas where they should not. Past administrations have moved in the right direction; this Commission should recommend even greater movement as follows: either eliminate the flood insurance program entirely or institute a “one strike and you’re out” policy, where existing investments would be protected. The Corps of Engineers and FEMA have moved entire communities because of flood hazards, so this type of change is not unprecedented.

The Commission asked Ms. Sarthou to provide the references she used to develop her testimony on the whale populations in the Gulf of Mexico.

Ms. Sarthou was asked to comment on Individual Fishing Quotas. Ms. Sarthou replied that IFQs are a tool that may be useful in certain situations given certain specific constraints. Although her organization had not yet taken a position, personally Ms. Sarthou believes that IFQs privatize a public resource. For IFQs to be acceptable, safeguards would have to be implemented to ensure that future changes in regulations would not lead to a takings claim. In addition, standards should be put in place that prevent the hoarding of harvest shares or limit the transferability of quota shares. Finally, it would have to be made clear that the Federal government would have the ability to take back harvest shares or even eliminate an IFQ system once it was created.

The Commission noted that protecting and restoring coastal habitat will be a key component for successfully managing our coasts. The Commission asked the panel whether it should recommend a different approach to managing coastal habitat rather than the current single issue (fisheries, coastal zone, wetlands) method. Mr. Simpson replied that while there has been great strides made concerning this issue, it remains difficult and further improvements are needed. Ms. Sarthou replied that the fragmentation of authority among the agencies is a big problem. Currently, agencies view coastal protection through the lens of various permitting processes, such as section 404 wetlands permits. However, viewing coastal protection in this way has failed, particularly with regards to cumulative impacts. There needs to be coastal protection and management regime into which permitting decisions could be incorporated. Perhaps the essential fish habitat (EFH) regulations could be used as a guiding principle. The Sustainable Fisheries Act was a start in right direction, but there are no teeth in the law and NMFS has no authority to stop activities that are damaging to EFH. In fact, in her knowledge, only one project has even been altered because of the EFH provisions in the law. She recommends giving NMFS the authority to require mitigation or allowing NMFS to stop projects that are harmful to EFH. Mr. Rosenberg noted that of the 13,000 section 404 wetlands permits granted by the Corps of Engineers, 11,000 are in the Gulf States. Mr. Swingle noted that the Commission might want to explore the authorities in the Fish and Wildlife Coordination Act, because the states were given a lot of oversight responsibility.

The Commission noted that of the species for which there are data, 72% of fish stocks are overfished. The panel was asked about the idea of separating the decision on the size of the total allocation from the decision on how to allocate that quota. Mr. Swingle replied that the Council does set the Total Allowable Catch based on a range recommended by scientists. The numbers are a range based on the level of risks one accepts for managing the stock ion a sustainable manner. Mr. Simpson responded that often the scientists don't know precise stock numbers, only trends in stock size. Ms. Sarthou replied that the Gulf Council has exceeded scientific recommendations for appropriate TAC levels in some fisheries for several years running. The Council, in setting the TAC, tends to look at the needs of their constituents, rather than the needs of the stock.

Public Comment

Maura Wood, Sierra Club -- The Commission has a great opportunity to take the big view on the sustainability of resources. The oceans were once thought to be inexhaustible, now no part of the ocean is out of the reach of human influence. The Commission should make decisions based on three “filters”: 1) Stewardship -- look at every action on how the decision will affect our children; 2) Precautionary Principle – place the burden of proof on the proponents of an action, not the opponents; 3) Natural Processes – natural processes, such as a flood, are both destructive and constructive at the same time. Management attempts to lessen the destructive side, but also loses the constructive, creative side as well.

Cynthia Goldberg, Gulf Restoration Network – The section 404 permitting system under the Corps of Engineers has a goal of limiting damage to wetlands. In spite of this, most of the nation's wetlands have been lost; in Louisiana alone, 25-30 square miles of wetlands are lost per year. In 1989, the Administration came up with a “no net loss” policy which was supposed to

lead to a decision-making process that would first avoid damage to wetlands and then, if unavoidable, minimize damage to wetlands via compensatory mitigations projects. However, two recent studies show this does not really work as planned. Both the 2:1 replacement formula and “in-lieu fees” that the Corps uses for mitigation do not fully mitigate for the loss of wetlands under the section 404 permitting process. Recommendations to address these problems include using a 20-year monitoring period to assess projects, and less reliance on permitting to protect wetlands

Neil Armingeon, Lake Pontchartrain Basin Foundation – The Mississippi River and Lake Pontchartrain form the soul of the City of New Orleans. In spite of the fact that they are far from the Gulf, the river makes New Orleans a coastal town. The biggest issue for the city is the continuing loss of wetlands. Communities in Louisiana still allow the development of coastal wetlands in spite of the section 404 permitting process which is supposed to protect wetlands. The permitting process often grants permits in areas where the Corps or other agencies are spending money to restore damaged wetlands. The section 404 process already grants permits at an alarming rate in the Gulf region and does not to be streamlined. The Commission needs to look at the section 404 permitting process, especially with regards to granting the public to basic information on the program, such as where, how much acreage, and who is applying for permits.

Dr. Barry Cole, geologist – Elevated levels of mercury have been found in fish near oil and gas platforms. This has led to 19 public health advisories. A 1995 MMS study found mercury levels in fish of 3.5 parts per million, 5 times higher than the acute toxic threshold. In addition, recent evidence indicates a potential connection between barite-based drilling mud and mercury contamination. The MMS research on mercury contamination needs to continue and be expanded to state waters as well.

Paul Sammarco, LUMCON – The presence of coral communities on platforms in the Gulf creates a potential win-win-win situation for the environment, industry and agencies. We need to look at platforms as environmental assets. There are 400 platforms in the gulf that provide hard substrate for species in an area that has not had hard substrate for thousands of years. Worldwide, 70% of coral reefs are in decline, so finding any areas where new coral reefs exist is significant. The Flower Garden Banks are an isolated exception. Because of this, the platforms should be seen as having positive impacts on coral populations in the Gulf. Currently there are three options for rigs after they no longer are used by the industry: 1) removal; 2) cutting and toppling; 3) leave them in place. The Commission should explore the possibility of leaving more rigs in place. Rigs left in place could: save costs of removal; be used for mariculture; serve as re-colonization outposts for corals; serve as recreational fishing or diving locations.

Carolyn Woolsey – The Commission needs to look at the impact that international shipping is having on coastal land loss, including the impact of shipping to small and medium ports. Deep draft dredging has had serious impacts on coastal wetlands. Louisiana is of vital strategic interest to the nation and oil revenues have put a lot of money into the Treasury. Restoration work also needs to be seen as a national interest.

Wendy King – The dead zone off of Louisiana in the Gulf is growing larger primarily because of increasing fertilizer usage in the Midwest. The problem needs to be addressed at the source;

focus on the subsidies that lead to increased purchases of fertilizer by farmers. In addition the Commission needs to look at the impacts that drilling mud may have on the ecosystem and address the problem at the source

The Commission adjourned for the day.

March 8, 2002

Offshore Energy Panel 1

Mr. Chris Oynes – Regional Director, Minerals Management Service – Issues associated with offshore oil and gas development in the Gulf of Mexico

Mr. J. Robinson West – Chairman, Petroleum Finance Company – Contribution of offshore development to domestic energy production, the economy and the Federal treasury

Ms. Sandra Fury – Manager, Health and Environment, ChevronTexaco – Industry stewardship and conservation efforts and safety

The Commission noted that one of the challenges before them is to find harmony among the current Byzantine tangle of regulations that often overlap in conflicting ways. Towards that end, the Commission asked Mr. Oynes if MMS had ever developed a report or study that detailed the extent of conflicting or overlapping regulations for the community they regulate. Mr. Oynes replied that there is no specific report, but he will look to see if they have an informal list that could be shared with the Commission. The Commission then asked if he felt that MMS could manage the existing mandates before them. Mr. Oynes replied that they are generally able to handle the mandates, but listed three areas that could use improvement: 1) the CZMA consistency process; 2) the gap in regulating non-energy production facilities; and, 3) the lack of a single agency to handle permitting for energy production.

The Commission asked the panel to discuss offshore Liquid Natural Gas (LNG) terminals. As plans develop, who handles the security issues? Are we putting ourselves in long-term danger? Is terrorism part of the review process? Mr. Oynes responded that they are still struggling with the answers, specifically, who is in charge, how do they incorporate the necessary safety and security information into the decision-making process. The whole issue of security is still being worked on by the involved agencies. One example is that they are working with the US Air Force on “sortie” practice, to determine how quickly a plane could be on-site once a warning is issued. Ms. Fury stated that we need to look at the issue globally. While the hurdles to address this issue are high, the amount of innovation within the industry is also high. She also pointed out that this issue again brings up earlier points about which agency has the jurisdiction, which permits are needed by the industry, and what level of security is appropriate. Mr. West replied that one needs to pose this question in an overall analysis of risk and he believes the largest current risk to the industry is the regulatory uncertainty of U.S. laws; there is a need to improve certainty and speed in the permitting process.

The Commission has heard from some witnesses and public comment speakers that there is a concern over potential mercury contamination of seafood associated with drilling mud. The Commission asked Mr. Oynes to explain the process that MMS is taking to resolve this issue. Mr. Oynes responded that MMS has sponsored research on this topic. Preliminary results indicate that mercury uptake in fish near oil platforms is not significantly different from fish that are located far away from oil platforms. MMS is planning to further investigate the issue by convening their science committee, asking them to review the scientific literature on the topic, and advise MMS on further steps.

The Commission asked Ms. Fury to list the types of studies that would be necessary to maintain the safety record of the oil industry. Ms. Fury replied that many of the challenges faced by the industry relate to the move into deeper waters. Her initial recommendation was for research on composite materials, particularly the effect of deepwater condition (temperature, pressure) on the materials. Other areas in need of research included: ways to handle risks associated with new materials; conservation of resources; sub-salt imaging and the ability to correctly interpret results; and, understanding oceanographic research as it relates to the oil industry.

Ms. Fury was asked if she could work with others in the energy industry to provide to the Commission an inventory of private facilities, platforms, and technologies similar to the one required of federal agencies in the Oceans Act. Ms. Fury said that she would work on it.

The Commission noted that there is a difference between a financial risk and a security risk and that Mr. West seemed to be equating the two in a response to an earlier question.

The Commission asked Mr. Oynes on his thoughts about the effectiveness of the consistency provisions on conservation and management, in addition to the development of energy resources. Mr. Oynes replied that there are efforts underway within MMS to address this question; however, he agreed that the overall mandate of the CZMA is protection of resources. Mr. Oynes was asked to provide in writing the results of the internal review on consistency to the Commission and he agreed. In addition, Mr. Oynes agreed to provide the following information: the total quantity of oil spilled at U.S. oil and gas platforms and other related facilities; any research or studies on the “aggregation vs. production” question relating to rigs as artificial reefs.

The Commission noted that a common refrain at their meetings is the lack of funding available to many important programs. In the Gulf of Mexico, estimates are that the oil industry has contributed \$10 billion to the Treasury. There is a need to explore mechanisms to get some of that money redirected to the Gulf. The Commission asked Mr. West if there are any proposals to use MMS-derived funds and direct them to coastal programs. Mr. West replied that although he would like to see this, there is a need to work this issue both politically, as well as at the local community level before proceeding.

The Commission noted that transparency is in everyone’s best interest – good data helps everyone make better decisions. The Commission asked if the industry, like the Navy, has a policy to reveal data to the public while protecting proprietary information. Ms. Fury replied that the industry does release some of the data they collect to the public but that there are certainly more opportunities to do so. The industry is trying to work with the Federal agencies to

provide them with industry gathered data, but additional work needs to be done. The Commission noted that the credibility of any data source is crucial to using it successfully in the management arena. The Commission urged the industry to work with the Federal government to design a procedure that will ensure credibility of industry data, including peer-review. Because there is such an urgent need for additional reliable data, the Commission will likely push this idea as they proceed. Ms. Fury agreed that this is important, but noted that policy decisions are not always made based on the soundest data.

During the public comment period, the Commission heard of the potential benefits of leaving rigs in place after production has ceased. In addition, the industry appears interested in this idea, but there is a question of liability when handing over a rig to another group. This has resulted in very few, if any, successful efforts to employ old rigs for alternate uses. The Commission asked Mr. Oynes to discuss the liability issue. Mr. Oynes replied that liability is indeed the biggest problem. The industry, not the MMS is responsible for any financial matters, including liability, of the rigs while they are in the water. That being said, the “rigs-to-reefs” program, where over 150 rigs have been converted to artificial reefs, has been very successful. Whether there should be more such programs is an open question. The Commission asked the follow-up question if it would be possible to change the liability rules to allow other such programs. Mr. Oynes replied that this issue could be looked at. Ms. Fury replied that there have not been a whole lot of opportunities yet for such programs because current regulations allow a very limited timeframe to return the area to a natural state. These regulations, in addition to liability, also need to be changed.

The Commission asked Mr. West to compare the U.S. Outer Continental Shelf program with foreign regimes. He replied that there is an entirely different perception overseas. In the U.S., large areas of the OCS are off limits to energy production. In contrast, no location in the North Sea is off limits. In the United Kingdom, the tax structure is optimized to promote exploration, development, and production of petroleum resources. These countries are also concerned about the environment, but the U.S. is much more conservative in this area, with tougher operating standards.

The Commission has heard from several sources about potential new uses of OCS resources, including development of pharmaceuticals. The Commission asked Mr. Oynes if MMS has the authority to generate revenue from these alternate uses of the OCS. Mr. Oynes replied that this is a completely new area. It has already been determined that MMS does not have authority over organisms that are attached to the rigs. However, Mr. Oynes is unsure if anyone has the authority to generate revenue from non-mineral OCS resources. Another related example is that if some were to build an offshore LNG terminal, the Corps of Engineers would be the only agency with authority to regulate.

The Commission asked Ms. Fury if there are any studies on environmental issues associated with pipelines getting the product to shore, especially with subsidence of land potentially exposing pipes. Ms. Fury answered that with regards to pipeline infrastructure, the industry has made several advances and now has a more orderly plan for pipelines. Current regulations require the industry to route pipelines around sensitive areas. New technologies allow them to drill in more environmentally sensitive way, including drilling sideways. In addition, the industry does

extensive work to check and maintain the integrity of the pipeline system, including revisiting the question of whether a pipeline should be removed rather than refurbished.

Offshore Energy Panel 2

Mr. Mike French – Director, Technology Assessment Division, Department of Natural Resources, State of Louisiana – State-Federal interaction in managing offshore oil and gas development

Mr. J. Michael Talbert – Chief Executive Officer, Transocean Sedco Forex – Offshore oil development: Governance, access, and environmental performance

Mr. Robert B. Wiygul – Environmental Attorney, Waltzer & Associates – Environmental perspectives on offshore oil and gas development

After their formal presentations, the Commission had several questions for the panelists. The Commission asked Mr. French if states offered incentives for exploration in reservoir. Mr. French replied that most states do offer some incentives, but they are currently insufficient to make it economically feasible to develop the extremely high-cost deep sub-surface deposits. Although there is some movement on the part of states to increase incentives, it is unlikely that the increased incentives under discussion will be sufficient either.

The Commission noted that the focus of concern over offshore energy production has moved from pollution to coastal land loss and mercury. The Commission asked the panel to describe the industry response to these newer concerns. Mr. Talbert replied that one of the speakers in the previous panel (Mr. Oynes) stated that initial results indicate that there is little evidence that there is any significant mercury contamination in fish. The biggest cause of coastal land loss is the construction of levees on the Mississippi River, which leaves sediments trapped upstream. The impact of the oil and gas industry on land loss is limited and there are constant improvements to lessen the impacts. Mr. Wiygul responded that the use of the precautionary principle is not without precedent, citing the amendments made to the Magnuson-Stevens Fishery Conservation and Management Act in 1996. The use in the wetlands permitting process needs to be further explored because the current system of mitigation has been shown to have serious problems and does not appear to be working to protect wetlands. Although wetlands loss may not currently be attributable to the oil and gas industry, this was not always so and we still need to learn how to fix past damage done to wetlands. In addition, the oil and gas industry made a lot of money, in part due to receiving permits to build in wetlands, so the industry should be responsible for fixing some of their damages to wetlands. In addition, while Mr. Wiygul agreed that much of the discussion has shifted from pollution, this issue is not totally off the table. Mr. Talbert added that with everything there is a trade-off between economics, national security, and the environment. While we do need to evaluate risks associated with energy development, we also need a clear time-frame so that the industry can make decisions with more certainty.

The Commission asked if one were to eliminate royalty payments or increase economic incentives to the industry, how would the public benefit from the extraction of a public resource and where would funds for the COAST 2050 project come from? Mr. French replied that current revenue streams could be tapped. In addition, the purpose of incentives is to overcome the

upfront, start-up costs associated with exploration and development of new resources. Once production is up and running, royalties could then be paid by the industry, or the incentives could come from royalty reductions or income tax credits from the companies' revenue streams from the new production that would not occur without the incentives.

The Commission asked if a "sunset" provision for new incentives could both allow the industry to proceed while ensuring that the public receives payment for access to public resources. Mr. French replied that yes, a sunset provision could be a workable way to ensure the public receives a benefit from the revenue stream from energy production.

The Commission asked if OCS energy development can be shown to have an impact onshore, does it not make sense to give the states input into this process? Mr. French replied that all stakeholders should have input. However, there needs to be a final resolution to the process. The CZMA does not currently have any certainty to the timeframe to resolve disputes.

The Commission asked the panel if they had any estimates on how much revenue has been generated from OCS resources and how these revenues compare to certain needs, such as the cost of restoration. The panel replied that they do not have access to these figures, but that the State of Louisiana Secretary of the Department of Natural Resources may have these estimates. Mr. French volunteered to work with the MMS and try to get these numbers to the Commission.

The Commission noted that other countries pay a lot less attention to environmental concerns and impacts to the ocean than the United States. In spite of this, there is often unwillingness on the part of the United States citizens to allow greater exploration of OCS resources. The panel was asked to comment on what the Commission should say about U.S. policy towards offshore development with regards to the environmental impacts. Mr. Wiygul responded that the Commission should recommend that the U.S. pay more attention to environmental impacts than we are currently. In addition, we need to manage existing production with greater protections for the environment. Perceived risk is a real risk. Perhaps we need to view the status of your community, your home, the place one lives in as a "second paycheck" because many people do see these things as having real, not just perceived, value. Mr. Talbert said that there is no "silver bullet." Responsible energy development is possible and the United States is the best at this. The environmental movement has pushed the industry to incorporate environmental thinking into their operations. It is sometimes the case that the operating companies will have better environmental standards than some local governments. However, the question of what is an acceptable risk to the environment is still difficult to answer. Mr. Wiygul added that there still needs to be education and that we will eventually have to pay for damage done to the environment. If we incorporate this into our thinking, perhaps the damage done to the Gulf in the early days will not happen again.

The Commission noted that consistency was a key provision to good planning at the state and local level. However, OCS energy development and consistency has been a problem right from the start. Changes to the consistency provisions will not solve the problems because the other side will always react. Instead, we need to align oil and gas development with the needs of the coastal communities.

The Commission noted that new technology is often driven via huge investments in the private sector. The Commission asked Mr. Talbert to give the Commission a quick perspective on the extent of his company's exploratory units and the magnitude of investments his company makes. Mr. Talbert replied that they are constantly developing new technology. So much so that they have to constantly train and re-train even experienced technicians on the new technologies. The rigs are very efficient with regards to drilling rate; with operating costs being \$350,000 to \$400,000 per day, efficiency is very important. Small changes in efficiency lead to huge dollar savings. In addition, this same drive for better technology has paid dividends for environmental protection as well.

Pollution and Hypoxia Panel

Mr. Jimmy Palmer - Regional Administrator, U.S. Environmental Protection Agency Region 4 – Gulf of Mexico Program

Ms. Susan Heathcote – Research Director, Iowa Environmental Council – Upper Mississippi River Basin effects on coastal waters

Mr. Chris Nelson – Regional Director, National Fisheries Institute, Vice President, Bon Secour Fisheries – Seafood safety: impacts of upstream pollution on the shellfish industry

The Commission noted that it took enactment of a statute to create the Gulf of Mexico Program and other similar programs. In addition, we can organize around a place or program, and perhaps both. However, there are other areas that don't have a neat and tidy connection connected to a bay or river that drives action, although they may also be of national significance. The Commission asked Mr. Palmer for his ideas on how to address these areas. Mr. Palmer replied that when there is lack of a mandate because of inadequate authority, progress is made via persuasion. This creates a challenge because often, but not always, you have to persuade people to spend money to make progress. Mr. Palmer agreed that it is often a challenge to address all areas that are not "place based". It really comes down to whether or not, at the highest echelons, the Secretaries of the relevant departments have discretion to address coastal areas. If you don't get involvement from the top down, you can't get it from the bottom up. The Commission noted again that if you cannot define a problem on a bumper sticker, it often seems that progress is difficult.

The Commission noted that there is little interaction between agencies on coastal matters. Mr. Palmer was asked how he would recommend ways to coordinate research among the agencies. He replied that competition between agencies is always going to be a problem. At a Senate appropriations hearing, he was the fourth in a line of speakers that asked the Committee for funds to address "water". When asked why so many agencies are asking for the same thing, Mr. Palmer replied, "because you let them." All it would take to solve this problem would be for Congress to task the agencies with coming up with a plan and a list of mileposts and the coordination would happen. In a follow-up question, the Commission asked if there would be a problem at the lower levels if the agencies were asked only at the highest levels to coordinate their actions. Mr. Palmer noted that in many ways, we are talking about making the agencies work in ways they do not want to work. In order to make it work at all levels, there would need to be accountability measures in place for all involved. Otherwise, there tends to be a "dilution

factor” as one proceeds through each layer of a bureaucracy. In addition, someone or something will have to plead, beg, borrow or steal to get each agency to give up some of their identity in situations where coordination is required.

The Commission noted that there has been a lot of testimony expressing the desire for “one-stop shopping” for permit applications. At the same time, there have been criticisms of the permitting process as well. Wetland permits are often modified but rarely denied. Given the land loss seen in the Gulf region, how could one revise the permitting process to both provide the necessary coordination between agencies but also allow cumulative impacts to be accounted for?

Cumulative impacts are best addressed via zoning and planning at the local level. However, local officials often say they will defer to the regulatory agencies. The Clean Water Act was never designed as a land-use code. However, when you don’t have planning and zoning at the local level, the CWA is often used as a surrogate. Local officials need to step up to the plate and make these zoning decisions.

The Commission asked Ms. Heathcote if local water quality problems were addressed in the mid-west, would more still need to be done to improve water quality in the Gulf of Mexico. She replied that she is not sure if anyone can answer that question at this time. However, it is certain that we need to start at the local level. If we reduce local pollution in the Midwest, we will reduce nutrient transport to the Gulf of Mexico. Row crop agriculture accounts for roughly 50% of the nitrogen inputs to the Gulf. To accomplish significant nitrogen reductions, Iowa farmers need to diversify by adding more non row crops such as hay, alfalfa and oats rather than just soybeans and corn. This could most easily be accomplished by changing the incentives contained in current agricultural policy.

The Commission asked if it would be possible to target lower production targets through lowering the level of nitrogen fertilizer applied to crops, to better match production to current needs. Ms. Heathcote replied that it might be possible if one were only concerned with the environment, but economically; it may not allow local farmers to remain in business. However, this line of thinking is definitely part of the answer. The current emphasis of best management practices in farm communities is to maximize yields, and protecting the environment is a secondary consideration. If we are going to move toward a system where best management practices are based on protecting the environment then we must recognize that farmers have a huge investment in the current system, and they will need financial assistance to transition to a new system. Best management practices are evolving, and will need to continue to evolve to address the problem of excess nutrients.

The Commission noted that the move towards larger and larger livestock operations is a nationwide trend. What are some recommendations that the Commission could make to change this trend? Ms. Heathcote replied that there is no clear answer right now but that this issue is under study. She noted that with livestock, it is not only the size of the livestock farm one must consider, but also the density of animals on the land. What is important is that there is a balance between the nutrients available from manure and fertilizer needs of the crops being grown in the area. Where manure from livestock operations exceeds crop needs, it is often treated as a waste problem rather than a resource. Farmers often prefer chemical fertilizer rather than consider using manure. Iowa imports fertilizer up the river in barges and delivers fertilizer down the river

as pollution in the water itself. We need to better manage our use of nutrients, including our use of manure.

The Commission noted that there are both positive and negative impacts associated with changing salinity regimes. The Commission asked Mr. Nelson to expand on his comments related to oyster sanctuaries and other protected areas. Mr. Nelson replied that oyster sanctuaries are similar to but not the same as “Marine Protected Areas.” Currently, there is research being conducted on protected areas for spawning. More needs to be known about where oyster spawn settle and how big an area is needed as a nursery to fully settle an area. In Louisiana, vast areas are already set aside to protect public health. Current discussions surround the idea of creating a “mother reef” to provide spawn to settle nearby areas.

The Commission asked Ms. Heathcote if there were other groups working the same issues as her organization. She replied that there are other similar groups. One thing that is somewhat unique about the Iowa Environmental Council is that it works closely with many farm groups. Farmers resent being called the bad actors on this, so much so that groups that were previously devoted to traditional farming issues now include hypoxia in the Gulf of Mexico as a topic for discussion. In addition, the “Clean Water Network” is a collection of environmental groups, agricultural policy groups, and family farm groups that are concerned with non-point source pollution issues across the entire country. The time may be coming that we will have a basin wide strategy, but we need policies to change now to make it happen.

The Chairman noted that the testimony of this panel was valuable and proceeded to a public comment session.

Public Comment

Maurice Coman, Delta Chapter - Sierra Club

The Gulf of Mexico is a valuable and unique ecosystem. We are losing the fight to protect it and we want to turn this trend around. Economics has driven much of the degradation to the ecosystem but it does not necessarily have to be this way. The oil industry can still make money and lessen their impact on the ecosystem. In addition, if we don’t protect our ecosystem, we will lose tourism, which is also a large source of income in the region. In addition, every time we have a major hurricane, we learn that our past mistakes can have a huge negative economic impact to the local economy. Mr. Coman urged the Commission to act for the people, not for the exploitative industries.

Doug Dagel, Mississippi River Basin Alliance

Mr. Dage

l’s group is comprised of 150 member groups. Their group support H.R. 1800, introduced by Rep. Kind (R-WI) in the U.S. House of Representatives. It provides for monitoring by the US Geological Survey of upper Mississippi River nutrients. Mr. Dage

l noted that this bill is really an ocean bill, as the Commission has already heard today. Actions in the upper Mississippi River basin impacts coastal land loss, hypoxia, and climate change.

Mollie Sullivan, Long-Term Estuarine Assessment Group

Her organization provides predictive tools for information on the Mississippi River. They have worked with historically black universities in creating the Mississippi River interdisciplinary research program. They have set up data collection platforms in the Mississippi River delta which help them tie the concerns of the upper river basin to those of the river delta. She requested that the Commission help her organization with the U.S. Congress to get funds. In addition, they are working with the JASON project to encourage students to get involved in science.

The Chair asked if there were any other people that wished to make any public comments before the Commission; there were no additional requests for time so the Commission went into a period of Commission Business

Commission Business

The Commission began discussing the “elements” document prepared by the Governance Working Group. The Commission discussed several issues related to this document and directed staff to incorporate the agreed upon changes. Following this, the document should be distributed to the Ocean Commission Science Advisory Panel and be made available for public comment. Staff should incorporate suggested changes and re-distribute via email to the Commissioners. Once approved, the document will be put up on the website. In spite of the fact that the “elements” document is not final, the Chair urged the working groups to begin working on questions specific to each working group.

The Commission adjourned the public meeting.

Appendix 1

March 7-8, 2002 Ocean Commission Meeting Attendees

| <u>Name</u> | <u>Affiliation</u> |
|---------------------|--|
| Dan Archeneaux | CZMAC St. Bernard |
| Neil Armingeon | Lake Pontchartrain Basin Foundation |
| Linda Bauch | API |
| Landry Bernard | National Data Buoy Center |
| Tom Broom | Shell E & P Inc. |
| Columbus Brown | US Fish and Wildlife Service |
| Kassandra Brown | NO96 |
| Richard Campanella | Center for Bioenvironmental Research |
| Gloria Car | EPA/Gulf of Mexico Program |
| Victoria Caridas | Plaquemines Parish Gov't |
| John Carlton | Alabama Dept.of Environmental Mngt. |
| Glen Carpenter | MS. Dept. of Marine Resources |
| Jeff Chapman | Exxon Mobil |
| Jeff Childs | MMS |
| Susan Childs | MMS |
| Maurice Coman | Delta Chapter - Sierra Club |
| Barney Congdon | MMS/DOI |
| Claire L. Connolly | USGS National Wetlands Research Center |
| James H. Cowan, Jr. | Louisiana State University |
| Doug Daigle | Mississippi River Basin Alliance |
| Arne R. Diercks | Ocean Technologies LLC |
| Debbie Donaldson | CNMOC |
| Chris Dorsett | Gulf Research Network |
| Mike Dunne | Advocate |
| David Duplantier | Chevron Texaco |
| Pete Emerson | Environmental Defense |
| Kristen Fletcher | Sea Grant Law Center |
| Tom Fry | National Ocean Industries Association |
| Jim Giattina | U.S. EPA/Gulf of Mexico Program Office |
| Cynthia Goldberg | Gulf Restoration Network |
| Bryon Griffith | EPA/Gulf of Mexico Program |
| James H. Griggs | State of Ala - State Lands Division |
| Bob Hattoy | American Oceans Campaign |
| Emma L. Hikerson | NOAA/Flower Garden Banks National Marine Sanctuary |
| Sharon Hodge | Mississippi Attorney General's Office |
| Margo Jackson | NOAA |
| Jeff Jenner | NOAA - National Coastal Data Center |
| Edward Johnson | NAVOCEANO |
| Jimmy Johnston | U.S. Geological Survey |

March 7-8, 2002 Ocean Commission Meeting Attendees, cont'd

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|-------------------------------|--|
| Thomas Jones | CORE |
| Barbara Keeler | US EPA |
| Grace Kelly (Mrs. Paul Kelly) | U.S. Commission on Ocean Policy |
| Frederick C. Kopfler | U.S. EPA, Gulf of Mexico Program |
| LouRae Langevin | Department of the Navy |
| Mike Liffmann | Louisiana Sea Grant College Program |
| Ralph Lopez | NOAA Fisheries |
| R. Michael Lyons | Louisiana Mid-Continent Oil & Gas Assoc. |
| David Martin | Minerals Management Service |
| Jill Mastrototaro | Lake Pontchartrain Basin Foundation |
| Julio Mayorga | St. Bernard Parish Gov. Coastal Zone Management |
| Tom McIlwain | NOAA/NMFS |
| Thomas Michels | National Ocean Industries Association |
| Sid Mizell | Halter Marine, Inc. |
| Joaquin Mujica | U.S. Army Corp. of Engineers |
| Thomas Nelson | ONR/NDU |
| Corky Perret | Mississippi Department Marine Res. |
| Patrick Peterson | The Sun Herald |
| Dave Rathbun | CNO (NO96) |
| Philip Renaud | NAVOCEANO |
| R. George Rey | COTS Technology, LLC |
| Charles Riley | Ocean Technologies |
| R. Mark Ronse | US DOI/MMS |
| Pasquale Roscigno | Minerals Management Service |
| Capt. Bob Ross | USCG HQ |
| John Roussol | La. Dept. Wildlife & Fish |
| Paul W. Sammarco | Louisiana University Marine Consortium (LUMCON) |
| Bob Sandilos | Chevron Texaco |
| Mitchell Shank | Naval Oceanographic Office |
| Kathy Shield | CNO (NO96) |
| Alan Spackman | Int'l Assoc. of Drilling Contractors |
| Robert E. Stewart, Jr. | USGS/National Wetlands Center |
| Joe Stinus | NOAA/NESDIS/NCDDC |
| Carroll Suggs | NOIA |
| Molly Sullivan | National Center for the MS River |
| Anne Tenney | National Science Foundation |
| Larinda Tervelt | Gulf of Mexico Program/EPA |
| John W. ("Wes") Tunnell, Jr. | TX A&M University - Corpus Christi |
| Jack R. Van Lopik | LSU - Sea Grant Program |
| Peter Velez | Shell |
| Stewart Wade | ABS |
| Eli Weissman | The Ocean Conservancy |
| Chuck Wilson | LSU |

March 7-8, 2002 Ocean Commission Meeting Attendees, cont'd

Maura Wood
Catherine Woody
Carolyn Woosley, CFP

Sierra Club
NOAA/National Data Buoy Center
CRCL Member