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FUTURE OF THE MARINE MAMMAL PROTECTION ACT (MMPA)

HEARING

BEFORE THE

SUBCOMMITTEE ON OCEANS, FISHERIES, AND COAST GUARD

OF THE

COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION
UNITED STATES SENATE

ONE HUNDRED EIGHTH CONGRESS

FIRST SESSION

JULY 16, 2003

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ONE HUNDRED EIGHTH CONGRESS

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CONTENTS

WITNESSES

APPENDIX

FUTURE OF THE MARINE MAMMAL PROTECTION ACT (MMPA)

WEDNESDAY, JULY 16, 2003

U.S. SENATE,
SUBCOMMITTEE ON OCEANS, FISHERIES, AND COAST GUARD,
COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION,
Washington, DC.

The Subcommittee met, pursuant to notice, at 9:32 a.m., in room SR–428A, Russell Senate Office Building, Hon. Olympia J. Snowe, Chairman of the Subcommittee, presiding.

OPENING STATEMENT OF HON. OLYMPIA J. SNOWE, U.S. SENATOR FROM MAINE

Senator SNOWE. The hearing will come to order.

Good morning, and I am pleased to welcome our two distinguished panels of expert witnesses and all members of the audience for our hearing today on the future of the Marine Mammal Protection Act. Although our first attempt to hold this hearing had to be postponed because of a series of 33 votes on the tax bill, I am very grateful to all of you for adjusting your schedules again to allow us to hold today's hearing. I really appreciate your presence here today.

We are here to discuss the Marine Mammal Protection Act, the most comprehensive protection and conservation legislation in the world with respect to marine mammals. All of us share a common concern for this act and its role in protecting and conserving marine mammals. I am committed to seeing that the MMPA provides an effective means to achieving this goal. This issue is certainly one of the most important and the most challenging legislative issues before the Subcommittee of Oceans, Fisheries, and Coast Guard in the 108th Congress.

The Marine Mammal Protection Act provides an important framework for conserving and protecting whales, dolphins, sea lions, walruses, manatees, polar bears, and other mammals that depend on the oceans. It was a product of society's great concern for preserving these animals during a time when the consequences of human activity threatened their existence, and it has certainly succeeded in reducing many negative human impacts and helping many species recover.

Since this legislation was first enacted in 1972, however, these species continue to face new as well as old threats to their survival. For example, we have become increasingly aware of the potential impact of underwater noise, habitat alteration, and ship strikes. Instead of improving in the last 20 years, these issues have persisted,

in fact becoming more intense due to strict interpretation of the act in recent court cases.

Recently many ocean activities that have been permitted in accordance with the MMPA, including scientific research, underwater mapping, and sonar testing, have been halted by lawsuits. Apparently the language in the act that guides the issuance of permits has been interpreted differently by different parties, with several courts ruling that some permits do not comply with the law. This indicates to me that the original language is losing its relevance to the ever-evolving ways our society depends upon and uses the oceans.

Issuing and legally defending marine mammal permits are complicated by the general lack of scientific progress on these animals. Consider the state of our knowledge on ocean noise and marine mammals: the National Research Council published extensive reports on this topic in 1994, 2000, and 2003, and upon examination, one finds that scientists are struggling to answer the same questions now as they were 10 years ago. There is still tremendous uncertainty about the most basic information such as how much noise naturally occurs in the ocean.

Clearly, we lack baseline and experimental data on noise and other environmental conditions, and we lack data that would tell us how mammals are affected by various environmental conditions. We simply do not know enough about the ecological relationships and conditions that are truly important for marine mammal survival. How can it be that so little progress has been made in the last decade? We need to examine very closely the issues surrounding the permitting and funding of research and other limiting factors that diminish scientists' ability to find the answers to these questions.

I strongly believe in conservation based on sound science. As human reliance and demands on the ocean intensify, it becomes increasingly important to understand how and why our activities affect marine mammals. It is equally important to advance our understanding of marine mammals. It is equally important to understand their anatomy, physiology, and behavior, and role in the ecosystem if we are truly interested in sustaining these animals in their natural state. The advancement of science needs to be the cornerstone of any reauthorization of the Marine Mammal Protection Act, and I am looking forward to hearing the testimony that will be presented today on ways in which we can better facilitate marine mammal science throughout the act.

How do we begin to tackle these complicated and challenging issues? The administration has proposed a reauthorization bill for the 108th Congress that addresses many of the issues that I have raised here today and threats that surround the marine mammal conservation. Its bill, along with many other relevant ideas, need proper Senate review. I am sure the Administration's views will be a focal point of today's discussion, but I am also eager to learn of other perspectives on how the act should be reauthorized.

We will hear from two panels this morning, and I am pleased that so many essential stakeholder groups are being represented by such knowledgeable and committed leaders who will testify today. The first panel represents many of the governmental perspectives

of those who need to implement and abide by the act. This panel consists of Dr. Rebecca Lent, Deputy Assistant Administrator for Regulatory Programs at the National Oceanic and Atmospheric Administration; Dr. Marshall Jones, Deputy Director of the U.S. Fish and Wildlife Service; Vice Admiral Charles Moore, Deputy Chief of Naval Operations for Fleet Readiness and Logistics with the U.S. Navy; and Mr. David Cottingham, Executive Director of the Marine Mammal Commission. I thank you for your dedication to these issues and for sharing your insightful testimony with us today.

The second panel represents many of the nongovernmental interests and stakeholders that are all so essential in shaping and following the mandates of this Act. We have Rear Admiral Richard D. West, President of the Consortium for Oceanographic Research and Education; Ms. Nina Young, Director of the Marine Wildlife Conservation for The Ocean Conservancy; Dr. Peter Tyack, Senior Scientist at the Woods Hole Oceanographic Institution; and Mr. Charles Johnson, Executive Director of the Alaska Nanuuq Commission.

I appreciate receiving all of your testimony here today and for appearing before this Subcommittee. I am looking forward to hearing what we can learn from each other and to discussing the complex factors that affect marine mammal conservation. By exploring these issues in the open with all concerned stakeholders, we can better understand how marine mammal protection can be made more effective in the upcoming reauthorization of this act. Once reauthorized, the act will ultimately be improved because of the input that will be provided here today and the days coming.

Again, I want to thank you for being here today as we formally engage in this discussion and begin the process of reauthorization. I know there are many issues that we need to explore here today, so I really appreciate your participation in this process.

Dr. Lent, let us begin with you. I would ask if you could summarize your statement within five minutes and your entire statement will be included in the record.

STATEMENT OF DR. REBECCA LENT, DEPUTY ASSISTANT ADMINISTRATOR FOR FISHERIES, NATIONAL MARINE FISHERIES SERVICE, NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION, U.S. DEPARTMENT OF COMMERCE

Dr. LENT. Thank you, Madam Chair. As you noted in your opening statement, the MMPA is a very important piece of legislation that has guided us in marine conservation for over 30 years. This act gives NOAA responsibility for conservation and management for over 140 stocks of marine mammals.

Working with our Federal partners, we have come up over the past 3 years with a sound administration proposal to reauthorize the MMPA. This was transmitted to the Hill in February of this year. I am focusing my testimony today on elements of that new bill. We strongly support the provisions in this administration bill.

First of all, the definition of harassment. The definition of harassment is a very important part of MMPA. We have had some difficulties with the interpretation of the current definition because, first of all, it is limited to acts that involve pursuit, torment, or annoyance. Second of all, the definition is too broad and does not give

a clear threshold for what is harassment or not. And third, it does not give an adequate mechanism to address those activities that are intentionally directed at marine mammals. So our bill proposes revisions to the current definition that addresses each of these concerns.

First of all, it eliminates that phrase of "pursuit, torment, or annoyance." So it takes away that two-tiered standard. Second of all, it clarifies the definition so that we can focus on the harassment that really results in meaningful biological disturbance, and the third, the bill adds new language and it makes it explicit that activities that are directed at marine mammals and are likely to disturb them are considered harassment. So overall we feel that this new definition is going to help have a clearer standard and make sure we are getting meaningful protection by focusing on the activities that really have significant biological impacts on these animals.

The second area has to do with marine mammal bycatch reduction initiatives. Incidental take of marine mammals in fishing operations remains very important source of mortality and injury to marine mammals. We propose in the administration bill to expand the section 118 bycatch reduction requirements to include those noncommercial fisheries that have frequent or occasional takes of marine mammals. This is important because sometimes in some of these fisheries, such as recreational fisheries, we have identical gear and it is deployed in the same fashion. However, we can only put observers under the MMPA on commercial fishing vessels. This way we can protect noncommercial fishermen from being prosecuted for incidental takes.

Second of all, we have in the bill measures to help us explore new technologies, such as video information collection technologies, so that we can get more information on marine mammal bycatch.

Also, it would direct the Secretary of Commerce to have minigrant programs and other measures to encourage development of fishing gears and fishing methods to reduce interaction and injury with marine mammals.

Fourth, the bill requires NOAA to include technical liaisons with expertise in commercial practices on the take reduction team.

Other provisions include adding a definition of entanglement so that we can collect more information on these animals. As you noted, Madam Chair, we need more scientific information. If we can get entanglement as well as stranding agreements, then we can collect more information.

We also want to increase the civil and criminal penalties for violations of the act. They have not changed since the original bill.

We also want to make it illegal to interfere with an investigation or submit false information.

The bill provides authorization to use authorities to reduce the occurrence of ship strikes on whales, a very big concern for right whales.

We also would, in this administration proposal, explicitly prohibit the release of captive marine mammals without prior authorization.

And we would reinstate the ban on traveling exhibits for cetaceans.

The administration bill would also improve harvest co-management provisions by allowing this before we reached depleted levels.

The MMPA has been a sound model for marine mammal conservation and management policies. Reauthorization gives us a good opportunity to further strengthen conservation and recovery, as well as the science.

This concludes my testimony. I look forward to your questions. Thank you.

[The prepared statement of Dr. Lent follows:]

PREPARED STATEMENT OF DR. REBECCA LENT, DEPUTY ASSISTANT ADMINISTRATOR FOR FISHERIES, NATIONAL MARINE FISHERIES SERVICE, NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION, U.S. DEPARTMENT OF COMMERCE

Madame Chair and Members of the Subcommittee, I am Dr. Rebecca Lent, Deputy Assistant Administrator for Fisheries at the National Oceanic and Atmospheric Administration (NOAA). Thank you for inviting me to testify today on the reauthorization of the Marine Mammal Protection Act (MMPA).

NOAA Fisheries administers the MMPA, the principal Federal legislation that guides marine mammal protection and conservation policy in U.S. waters, in conjunction with the U.S. Fish and Wildlife Service (FWS). The MMPA provides NOAA with conservation and management responsibility for more than 140 stocks of whales, dolphins, porpoises, seals, and sea lions.

The Department of Commerce and NOAA have worked closely over the past three years with the Department of the Interior, Department of Defense, Marine Mammal Commission, and others to develop a sound Administration proposal to reauthorize the MMPA. In February 2003, we transmitted this Administration bill to Congress and I will focus my testimony today on various elements of that bill. Specifically, I will discuss improvements the bill makes to the definition of harassment, marine mammal bycatch reduction efforts, enforcement, and other important aspects of marine mammal conservation and management policy.

The Administration's MMPA Reauthorization Bill

Definition of Harassment

The definition of harassment, a critical component of the "take" prohibition, which is also defined in the Act, has broad applicability throughout the MMPA. The current definition in the MMPA separates harassment into two levels. Level A harassment is defined as, "any act of pursuit, torment, or annoyance which has the potential to injure a marine mammal or marine mammal stock in the wild." Level B harassment is defined as, "any act of pursuit, torment, or annoyance which has the potential to disturb a marine mammal or marine mammal stock in the wild by causing disruption of behavioral patterns, including, but not limited to, migration, breathing, nursing, breeding, feeding, or sheltering."

NOAA has experienced difficulties with interpretation, implementation, and enforcement of the current MMPA harassment definition. First, the definition is limited to acts involving "pursuit, torment, or annoyance." Second, the definition is overly broad and does not provide a clear enough threshold for what activities do or do not constitute harassment. Third, the definition does not provide an adequate mechanism to address activities intentionally directed at individual or groups of marine mammals that disturb the animals. The Administration's MMPA reauthorization bill proposes revisions to the current definition that would address each of these concerns.

Inappropriate Two-Tiered Standard: The current definition of harassment impedes NOAA's ability to adequately enforce the MMPA's take provisions. As the definition is currently written, only those acts involving "pursuit, torment, or annoyance," terms that are undefined in the MMPA, can be addressed. Second, the agency must prove that the act has the potential either to injure or disturb a marine mammal. Thus, the current definition contains a difficult two-tiered standard that the agency must meet before it can prosecute anyone who takes a marine mammal by harassment. Amendments to the harassment definition in the Administration's MMPA bill will eliminate the phrase "pursuit, torment, or annoyance."

Overly Broad: The current definition of harassment is both broad and ambiguous and, therefore, it fails to create a clear threshold for acts that do and do not constitute harassment. As a result, it is difficult for the agency to prioritize its resources to deal with the types of harassment that have the most negative effects

on marine mammals. We are also concerned that the existing definition could result in unnecessary administrative burdens on the regulated community. One could argue, for instance, that any activity has the potential to disturb a marine mammal by causing disruption of behavioral patterns, from humans walking along a pier near a group of sea lions causing them to stop feeding and raise their heads, to driving a ship that causes a wake that dolphins choose to swim in. As interpreted by some courts, the current definition does not distinguish biologically significant, harmful events from activities that result in *de minimis* impacts on marine mammals.

The lack of a clear threshold for harassment in the definition blurs the distinction between those activities that cause insignificant impacts and those that cause truly harmful impacts to marine mammals. This has negative consequences on marine mammals, NOAA, and the regulated community. First, activities that result in meaningful biological disturbance to marine mammals do not receive the degree of attention that they warrant. Second, NOAA Fisheries must devote resources to addressing activities and issues that result in biologically insignificant impacts on marine mammals. Third, the lack of clarity in the definition imposes unnecessary regulatory burdens on the regulated community, who are forced to apply for authorizations for often harmless activities to prevent potential legal consequences. The Administration's MMPA bill clarifies the definition of harassment to focus the agency and the regulated community on types of harassment that result in meaningful biological disturbance to marine mammals, rather than those acts that are not likely to have biologically significant impacts on marine mammals.

Lack of Emphasis on Directed Impacts: The third tier of the harassment definition contained in the Administration's MMPA bill makes it explicit that activities that are likely to disturb marine mammals that are directed at individual or groups of marine mammals, such as closely approaching, touching, or swimming with dolphins in the wild, are considered harassment. Members of the public and commercial operators who intentionally interact with wild marine mammals either by boat, in the water, or on land disturb the natural behavior of the animals. They also do a great disservice to these animals over time by habituating them to humans and vessels. In addition, humans who attempt to closely approach, chase, swim with, or touch wild marine mammals place themselves at risk since wild animals are unpredictable and can inflict serious injury if threatened or afraid.

Overall, NOAA feels the proposed definition of harassment contained the Administration's MMPA bill will apply a clearer standard of harassment to the entire regulatory community and result in more meaningful protections for marine mammals. Additionally, the proposed definition conceptually mirrors recommendations by the National Research Council (NRC) for regulations that are based on the potential for a biologically significant impact on marine mammals. In 2000, NRC pointed out flaws in the current definition of harassment, contending that since science is improving in terms of its ability to distinguish between activities that have significant negative effects and those that have insignificant effects on marine mammals, the harassment definition should be amended to reflect this. The harassment definition contained in the Administration's MMPA bill will achieve this goal of focusing on activities that will result or could result in significant biological impacts on marine mammals.

Marine Mammal Bycatch Reduction Initiatives

The incidental take of marine mammals in the course of fishing operations continues to be a large source of marine mammal mortality and serious injury. The 1994 amendments to the MMPA outlined an effective approach to monitoring and addressing the incidental take of marine mammals by commercial fisheries. The Administration bill contains several amendments to strengthen these provisions and marine mammal bycatch reduction efforts generally.

First, the bill proposes to expand the MMPA's Section 118 marine mammal bycatch reduction requirements to non-commercial fisheries that have frequent or occasional takes of marine mammals. Non-commercial fisheries, including recreational fisheries, often use identical gear to commercial fishing gear and deploy it in the same manner as commercial fishermen. Nonetheless, the MMPA currently only authorizes the agency to place observers and use the take reduction process outlined in Section 118 of the Act to monitor and address marine mammal bycatch resulting from commercial fisheries. The Administration bill amends Section 118 to enable NOAA Fisheries to monitor and address all important fishery-related sources of marine mammal bycatch. In addition, by including non-commercial fisheries under this regime, the Administration bill would provide a simpler mechanism than currently exists under the law to offer non-commercial fishermen that take marine mammals protection from prosecution for incidental takes.

Second, the Administration bill aims to improve information on marine mammal bycatch by directing the agency to explore new technologies to provide statistically reliable data on marine mammal bycatch levels. This is important due to the fact that observer programs are expensive and not always feasible.

Third, the Administration bill directs the Secretary of Commerce, acting through NOAA Fisheries, to create opportunities, such as mini-grant programs, to encourage development of fishing gears and methods that reduce marine mammal bycatch. The development of new gear and gear deployment technologies has already proven effective at reducing incidental takes. For example, the development of acoustic deterrent devices, called "pingers," has helped reduce incidental takes of harbor porpoises in New England waters.

Fourth, in the spirit of advancing fishing gear innovation, the Administration bill requires NOAA Fisheries to include technical liaisons with expertise in commercial fishing practices as members of take reduction teams (TRTs). These liaisons will work with TRT members on the latest advancements in gear technology that reduce marine mammal bycatch.

Enhancing Enforcement

While several sections of the MMPA have been updated since the Act was first passed in 1972, some areas are extremely outdated. One such area is the penalties that may be imposed for violations of the MMPA. Currently, individuals who violate the MMPA are subject to civil penalties of up to $10,000 and criminal fines of up to $20,000. These penalties have remained unchanged since 1972. While these levels may be appropriate in some instances, they have proven grossly inadequate in others, undermining effective enforcement of the Act. To enhance enforcement of the Act, the Administration bill would authorize the Secretary to impose a civil penalty of up to $50,000 for each violation. Fines of up to $100,000 for each criminal violation would also be available in suitable cases.

The Administration bill would also aid enforcement efforts by explicitly stating that individuals who interfere with on-board investigations by enforcement agents or submit false information are in violation of the MMPA.

Ship Strikes

Ship strikes continue to be a leading source of mortality of the critically endangered North Atlantic right whale and other large whales. Between 1970 and 2000, there were 48 known right whale mortalities, of which 16 were due to ship strikes. The Administration bill would authorize the Secretary to use the various authorities available under the MMPA to reduce the occurrence of ship strikes of whales and to encourage the development of methods to avoid ship strikes.

Stranding and Entanglement Response

NOAA Fisheries scientists must often respond immediately to marine mammal stranding and entanglement events to attempt to rescue and rehabilitate animals in jeopardy. These events provide NOAA Fisheries opportunities to save individual animals, as well as conduct close-up research on animal behavior, biology, and physiology. The MMPA currently provides for a comprehensive program to address stranded marine mammals, but does not specifically give NOAA Fisheries the authority to address marine mammals that have become victims of entanglement in fishing gear or other materials. The Administration bill would add a definition of entanglement to the Act and would require NOAA Fisheries to collect information on rescue and rehabilitation of entangled marine mammals in addition to stranded animals. The bill would also specifically enable the Secretary to enter into agreements with individuals to respond to entangled marine mammals in addition to stranded marine mammals.

Harvest Management Agreements

The 1994 MMPA amendments gave NOAA Fisheries and the FWS authority to enter into cooperative agreements with Alaska Native organizations to conserve marine mammals and co-manage subsistence use by Alaska Natives. These amendments provided a great beginning and the program has yielded some successes, evidenced by the agreements that we have reached to co-manage subsistence harvest of harbor seals, beluga whales, and other marine mammals. Nonetheless, the effectiveness of these agreements at this point relies on voluntary compliance by Alaska Natives, since there is no mechanism under the MMPA to enforce any restrictions developed through harvest management agreements for subsistence purposes. Additionally, the other provisions of the Act enable effective regulation of subsistence harvest only after designation of a marine mammal stock as depleted. The Administration bill would authorize co-management partners to develop a management plan through which cooperative agreements could be enforced. Thus, it would enable the

parties to effectively manage subsistence harvest prior to a depletion finding and ensure the greatest conservation benefit to the marine mammal stock.

Release of Captive Marine Mammals

The release of long-captive marine mammals without proper preparation and a sound scientific protocol is regarded by the scientific community as potentially harmful to both the animals released, as well as the wild populations they encounter. Fundamental questions remain as to the ability of marine mammals that have been held in captivity for extended periods to forage successfully, avoid predators, and integrate with wild populations. Unauthorized releases pose serious risks of disease transmission, inappropriate genetic exchanges, and disruption of critical behavioral patterns and social structures in wild populations. The Administration bill would explicitly prohibit the release of captive marine mammals without prior authorization, with limited exceptions.

Traveling Exhibits

We remain concerned about the risks posed to cetaceans by traveling exhibits. Unlike some marine mammals, such as seals and sea lions, which spend time in both aquatic and terrestrial environments, cetaceans must remain buoyant at all times. Therefore, their health and survival depends heavily on having a continuously clean and safe aquatic environment, conditions that are difficult to maintain when transport is frequent. Because transporting cetaceans is difficult and risky, traveling exhibits would place these animals under enormous stress. The Administration bill would reinstate the ban on traveling exhibits for cetaceans, originally instituted in the mid-1970s.

Export Provisions

As part of a package of permit-related amendments, the 1994 MMPA amendments added a prohibition on exporting marine mammals. However, the language of this prohibition has created some difficulties in enforcement and inconsistencies with other provisions of the MMPA, especially provisions related to permits. Therefore, the Administration bill would revise the export prohibition to address enforcement difficulties and provide comprehensive clarification of circumstances in which not only the taking and import, but also the transport, purchase, sale, and export, of marine mammals is authorized.

Conclusion

The MMPA has served as a sound model for marine mammal conservation and management policies and practices around the world. Reauthorization of the MMPA provides the opportunity to further strengthen the conservation and recovery of marine mammals. I look forward to working with Members of the Subcommittee, your staffs, and other interested members of the public to meet the challenges that face us in better protecting marine mammals, while balancing human needs throughout the reauthorization process.

This concludes my testimony. Thank you again for the opportunity to testify before your Subcommittee today. I would be happy to answer any questions you may have on the Administration's MMPA reauthorization bill or any other related matters.

Senator SNOWE. Thank you, Dr. Lent.

Mr. Jones? We will go right down the line.

STATEMENT OF MARSHALL JONES, DEPUTY DIRECTOR, U.S. FISH AND WILDLIFE SERVICE, U.S. DEPARTMENT OF THE INTERIOR

Mr. JONES. Thank you, Madam Chair. I appreciate having this opportunity to present testimony on the administration's proposal to reauthorize the Marine Mammal Protection Act of 1972.

I am Marshall Jones, the Deputy Director of the U.S. Fish and Wildlife Service. The Fish and Wildlife Service shares jurisdiction with NOAA Fisheries over marine mammals. Specifically we are responsible for polar bears, sea and marine otters, walruses, three species of manatees, and the dugong.

The administration strongly supports the reauthorization of the Marine Mammal Protection Act. However, as noted in Rebecca

Lent's testimony, we have identified several areas of the act where we think it would benefit from some well-considered changes. We look forward to working with you and the Members of the Committee to see these proposed amendments adopted during this session of Congress.

There are four areas that I would like to very briefly highlight in my oral statement this morning.

First, harvest management agreements. This, we believe, would be an important amendment to expand the authority of section 119 of the act to authorize harvest management agreements between the Secretaries of Interior or Commerce and Alaska Natives. These agreements would be designed to prevent the depletion of marine mammal stocks and would demonstrate the commitment of the Federal Government to continue to develop our partnership with Alaska Native organizations. This amendment would allow the regulation of subsistence take of marine mammals before species become depleted, providing substantial conservation benefits. These agreements would be developed using existing authorities already possessed by Alaska Native communities to enforce them, providing a new and meaningful role for Alaska Native organizations in conservation of marine mammals.

The second area which I would like to highlight briefly is the collection of southern sea otter data and fishery interactions. Sea otters are incidentally taken in fishery operations, but we do not know the extent of this take. The administration's proposal includes an amendment that would enable NOAA Fisheries to include information concerning California sea otters in the list of fisheries published under section 118 and to provide this information to the Fish and Wildlife Service. This would help us assess impacts that commercial fisheries may be having on the threatened sea otter population in order to provide a more informed basis for recovery.

The third area which I would like to mention is polar bear permits. This is a small amendment but it is one that I think fits under the category of good government. This amendment would streamline the permitting process and reduce the expense associated with publishing two notices for each application received to import a trophy of a polar bear taken in Canada before the enactment of the 1994 amendments or from populations of polar bears in Canada that are approved for trophy import.

The fourth and final area which I would like to highlight is the definition of harassment. As Rebecca Lent has noted, the administration has proposed a revised definition of this term. This amendment would greatly improve the clarity of the definition by making it apply to any act as opposed to the current statutory definition which is limited to acts involving pursuit, torment, or annoyance. We believe these changes make the standard more clear and more enforceable.

In conclusion, Madam Chair, I would like to thank you again for having this opportunity, and I want to emphasize our commitment to conserving and managing marine mammals by working closely and cooperatively with our partners in other Federal agencies, in conservation organizations, and especially with the Alaska Native community in order to further enhance the role of Alaska Natives

in marine mammal conservation. We look forward to working with you and Members of the Committee during this session of Congress and we hope that we can achieve a successful conclusion.

This concludes my remarks. I would be happy to answer any questions, Madam Chair.

[The prepared statement of Mr. Jones follows:]

PREPARED STATEMENT OF MARSHALL JONES, DEPUTY DIRECTOR, U.S. FISH AND WILDLIFE SERVICE, U.S. DEPARTMENT OF THE INTERIOR

Madam Chair and Members of the Subcommittee, thank you for the opportunity to provide the testimony of the Department of the Interior and the U.S. Fish and Wildlife Service on the Administration's proposal to reauthorize the Marine Mammal Protection Act (MMPA or Act) of 1972. I am Marshall Jones, Deputy Director of the U.S. Fish and Wildlife Service.

The MMPA was the first of the landmark conservation laws enacted in the 1970s; it turned thirty years old in 2002. The Act established an ongoing Federal responsibility, shared by the Secretaries of the Interior and Commerce, for the management and conservation of marine mammals. The Secretary of the Interior, through the Fish and Wildlife Service (Service), protects and manages polar bears, sea and marine otters, walruses, three species of manatees, and the dugong.

The Administration strongly supports reauthorizing the MMPA. Thirty years of implementation have demonstrated the Act's effectiveness in conserving and replenishing marine mammal populations. In addition to its support of reauthorization, the Administration and its partners have identified several areas of the Act that will benefit from well-considered changes. To this end, we have crafted a comprehensive set of amendments that represents a real step forward for marine mammal conservation, as well as makes corrections and adjustments to the legislation based on our experience in implementing the Act since the last reauthorization in 1994. These amendments are contained in a legislative proposal to reauthorize the MMPA, which was transmitted by the Administration to Congress in February of this year. The proposal reflects the diligent and coordinated work of the Service, NOAA Fisheries, the Marine Mammal Commission (Commission), our Alaska Native partners, and other Federal and non-governmental partners.

We look forward to working with the Subcommittee in a dedicated effort to reauthorize the MMPA and enact these proposed amendments during this session of Congress. My testimony will discuss some of the key amendments proposed by the Administration.

Proposed Amendments

Harvest Management Agreements

An important component of the Administration's reauthorization proposal is an amendment to expand the authority of section 119 of the MMPA, which relates to cooperative agreements with Alaska Natives, to authorize harvest management agreements between the Secretary and Alaska Native Tribes or Tribally Authorized Organizations. These agreements would be designed to prevent the depletion of marine mammal stocks in Alaska and would demonstrate the commitment of the Federal Government to continuing to develop our partnership with these organizations.

The MMPA prohibits take (*e.g.,* harass, hunt, capture or kill) of all marine mammals. However, the Act provides exceptions to the prohibition. One of these exceptions allows take of marine mammals by Alaska Natives for subsistence purposes. Subsistence harvest is not subject to regulation, unless the harvested animals are from a population that is depleted, or if the harvest is wasteful. This exception presents the possibility that Native harvest of non-depleted stocks could reduce some of those stocks to depleted status.

In fact, this situation has already occurred. Beluga whales in Cook Inlet declined dramatically in the mid-1990s due to over-harvest. The stock became depleted. Representatives of the Native community expressed their desire to develop a local management structure with Federal support for regulating harvest of marine mammal stocks. The intent would be to prevent such a situation—where stocks become depleted by harvest—from reoccurring.

In response to the interest of the Native community in developing a harvest management structure, the responsible Federal agencies, including the Service, NOAA Fisheries, and the Commission, cooperatively developed a proposed amendment with the Alaska Native community. The amendment would allow regulation of subsist-

ence take of non-depleted marine mammal stocks, and would thus provide substantial conservation benefits to marine mammals.

Under the proposal, harvest management regimes would be initiated and developed using existing authorities. If the responsible Federal agency agrees to, and adopts, a harvest management regime, the agency would be authorized to make assistance available to implement and enforce the management provisions. The proposal provides new responsibilities and a meaningful role for the Native community in resource management.

The proposed amendment requires that harvest management plans be designed to maintain a sustainable harvest. Each plan must describe the following: the entities involved in developing the plan; the geographic scope of the plan; enforcement authorities; the biological and management basis for harvest restrictions; the duration of the agreement; and the agreement's review provisions. Entities eligible to enter into such agreements are specifically defined as "Alaska Native Tribes or Tribally Authorized Organizations." The intent of this definition is to specifically identify the types of organizations that are qualified, because implementation will rely on existing tribal authorities, rather than creating new Federal regulations.

A harvest management agreement would initially be negotiated between the appropriate Federal agency and the eligible entity. Public involvement would then be solicited through a notice and review process. The proposed amendment specifically identifies the existing authorities for these provisions and makes clear that this approach creates no new sovereign, tribal authorities.

We believe that this amendment will create a strong conservation tool to ensure the long-term conservation of marine mammal populations in Alaska. The amendment's cooperative approach will facilitate partnerships to avert management crises that can arise under the current system. Without the proposed amendment, additional species may become depleted through excessive subsistence harvest. Activities by some individual hunters could continue to create conflict that the community would like to address but cannot under current law. We have worked closely with Alaska Native representatives on this proposal and strongly endorse its enactment.

Southern Sea Otter—Fishery Interaction Data

Southern sea otters are incidentally taken in fishing operations, but the extent of this take is not known. Pursuant to Section 118 of the Act, which addresses the take of marine mammals incidental to commercial fishing operations, the Department would like to gather information on fishery interactions with southern sea otters in California. MMPA reauthorization provides an opportunity to address this need by providing for enhanced efforts to assess the impact of commercial fisheries on this threatened sea otter population.

The Administration's MMPA reauthorization proposal includes an amendment to section 118(a)(4) of the Act that would require the Secretary of Commerce to include information concerning California sea otters in the list of fisheries published under section 118. In addition, California sea otters would be included in determinations pursuant to section 118(d) of the Act regarding establishment of monitoring programs and placement of on-board observers on fishing vessels to monitor interactions and assess the levels of mortality and serious injuries in the population.

Presently, section 118 specifically excludes California sea otters from the incidental taking exception, and nothing in this amendment is intended to change that. The proposed language is solely intended to enhance efforts to assess impacts that commercial fisheries may be having on this threatened sea otter population in order to provide a more informed basis for recovery efforts.

Polar Bear Permits

In 1994, Congress added a provision to the Act to allow for the issuance of permits authorizing the importation of polar bear trophies taken in sport-hunts in Canada if certain findings are made. The 1994 amendments specified that applications for such permits did not require review by the Marine Mammal Commission, but retained the requirements for public notice prior to and after issuance or denial. The Service has processed on average 90 applications for polar bear permits annually for the past six years. Although notice of each application has been published in the *Federal Register,* no comments have been received.

The proposed amendment to section 104(d) would streamline the permitting process and reduce the administrative expense associated with publishing two notices for each application to import a trophy of a polar bear taken before the enactment of the 1994 amendments or from an approved population. Since findings that allow for multiple imports were made after public comment, the approval of individual permits is largely a pro forma administrative process—an import is allowed if the particular bear was taken legally from an approved population. To ensure that the

public continues to have current information on these types of permits, the proposed amendment requires the Service to make available, on a semiannual basis, a summary of all such permits issued or denied.

Research Grants

The Administration also continues to be interested in the potential for research grants as described in Section 110(a) of the MMPA. A proposed amendment to this section would reauthorize research grants, and would make clear that grants under this provision may be targeted at plant or animal community-level problems (*i.e.,* ecosystem problems).

The Secretaries would be given flexibility to determine which research projects to fund. However, the proposed amendment highlights the following ecosystems as high priorities for research grants.

Bering Sea—Chukchi Sea Ecosystem—The Bering and Chukchi Seas have extensive, shallow shelves and, as a result, are some of the most productive areas in the world's oceans. These regions offshore of Alaska are undergoing significant environmental changes, including rapid and extensive sea ice retreat, extreme weather events, and diminished benthic productivity. Such dynamics are likely having ecosystem-wide effects. As such, there is a pressing need to monitor the health and stability of these marine ecosystems and to resolve uncertainties concerning the causes of population declines of marine mammals, sea birds, and other species. As residents of the region largely depend upon marine resources for their livelihood, research on subsistence uses of such resources and ways to provide for the continued opportunity for such uses must be an integral part of this effort.

California Coastal Marine Ecosystem—The southern sea otter, listed as threatened under the Endangered Species Act, has been experiencing an apparent population decline since the mid-1990s. The reasons for the decline, however, remain uncertain. Possible reasons include: introduction of new or unusual diseases; exposure to new or higher levels of chemical pollutants; incidental take in new or relocated fisheries; and decreases in key prey species due to temporary El Niño effects, long-term climate fluctuation, or otter densities exceeding carrying capacity levels within their current range.

These ecosystems are of great importance to marine mammal populations and would benefit from system-wide studies.

Definition of Harassment

The Administration has proposed a revised definition of the term "harassment," found in Section 3(18)(A) of the Act. This amendment would make the definition more enforceable by making it apply to "any act," as opposed to the current statutory definition, which is limited to acts involving "pursuit, torment, or annoyance." The Administration's proposed definition would provide greater notice and predictability to the regulated community by providing a clear threshold for what activities do or do not constitute harassment. The new language would define "Level A harassment" as "any act" (as opposed to acts of "pursuit, torment, or annoyance") that injures or has the significant potential to injure a marine mammal. "Level B harassment" would be defined to include "any act" that either disturbs or is likely to disturb a marine mammal's natural behavioral patterns to a point where the patterns are abandoned or significantly altered or is directed towards a specific individual or group and is likely to cause disturbance by disrupting natural behavior. We believe that these changes to the definition will not compromise conservation of marine mammals.

Conclusion

Madam Chair, in closing, I would like to thank you once more for the opportunity to discuss the Administration's proposal to reauthorize the MMPA. We are committed to conserving and managing marine mammals by working with our partners in a cooperative fashion. In particular, I want to emphasize our commitment to continued collaboration with our partners in Alaska to further enhance their role in the conservation and management of marine mammals. We believe that the changes we have proposed will allow us to be more effective in addressing our responsibilities in marine mammal management. We look forward to working with you and members of the Committee to enact meaningful improvements to the MMPA during this Congress and to demonstrate to the Nation our shared commitment to conserving marine mammals.

Madam Chair, this concludes my remarks. I am happy to answer any questions that you or members of the Committee might have.

Senator SNOWE. Thank you, Mr. Jones.

Admiral Moore?

STATEMENT OF VICE ADMIRAL CHARLES W. MOORE, JR., DEPUTY CHIEF OF NAVAL OPERATIONS FOR FLEET READINESS AND LOGISTICS, U.S. NAVY

Admiral MOORE. Thank you, Senator Snowe, for this opportunity to testify before your Committee this morning.

I am Vice Admiral Charles Moore. I am the Deputy Chief of Naval Operations for Fleet Readiness and Logistics. Prior to this assignment, I was the Commander of U.S. Naval Forces Central Command and the Commander of the United States Fifth Fleet in the Middle East for nearly 4 years, which concluded after we completed Operation Enduring Freedom.

During Operation Enduring Freedom and most recently in Operation Iraqi Freedom, 90 percent of our force and their sustainment moved to the region by sea. This has been the way we have deployed our forces over many years. We have been successful in recent combat operations. Our potential adversaries around the world have studied us intently as they have seen this very capable United States military force deployed forward, and they are in the midst of developing quiet diesel submarines to interdict our U.S. military forces it deploys by sea.

As we watch the media, we see C–5's and C–17's taking off. We do not see this tremendous force in the large strategic sealift ships that move over the vast ocean areas on the way to the objective area, in this case the Middle East. These quiet diesel submarines are designed and they are being employed to interdict U.S. military forces as they deploy overseas.

In the event we sought to assert ourselves in the far western Pacific, for instance in a crisis in Korea or a crisis in the Strait of Taiwan, we would see North Korean submarines and potentially Chinese submarines thousands of miles from their coasts attempting to interdict our large sealift ships as they move forward.

In the face of this threat, the United States Navy has been working for many years in our anti-submarine warfare capability. The technology is acoustic technology. It involves the use of sonar to detect, localize, and neutralize these threat submarines.

In the mid-1990s, we developed a system called the low frequency active sonar. We spent $350 million developing the system. We invested $10 million in research to prepare our environmental impact statement and to prepare our application for a permit to operate the system under the Marine Mammal Protection Act. After a two-year period of waiting for a permit, about one year ago we were granted a permit, and on the day we were granted the permit, we were sued by the Natural Resources Defense Council. That case has been under legislation on the west coast in San Francisco since then.

We understand that the judge will rule sometime in August. In her oral statements in the court, she has indicated she will likely rule in favor of the plaintiff and that our operations and our testing of low frequency active sonar may come to an end.

In the process of this litigation, we were directed by the judge to consult with the plaintiffs so that we could continue our testing and training, and in these consultations we agreed to confine our

testing and training to a small area in the western Pacific off the coast of Japan.

So this lawsuit will come to an end in August, and we will see where we go with low frequency active sonar.

I would tell you that it has been since World War II that we have faced this submarine threat. In World War II Nazi submarines sailed into the Chesapeake Bay and sunk ships off Baltimore. They stood off the City of Norfolk, Virginia and sunk ships. We lost tremendous shipping in the Pacific to Japanese submarines. And it was only our capability to build more ships than they could build torpedoes that enabled us to prevail in World War II. I can assure you this will not be the case in the future as we face this threat that will develop in the far western Pacific in the event we have to go to war in that part of the world.

The United States Navy, in consultation with the Secretary of Defense and his staff, has submitted this change in the Marine Mammal Protection Act to define harassment in a way that will enable us to test and train with the low frequency active sonar. We seek to change the definition of harassment from one where our activities result in the mere potential to disturb marine mammals to a definition that would include our activities would produce significant biological effects on marine mammals. If we are able to get this change in the definition of harassment, we will have struck a very significant balance between our obligation to be good stewards of the environment, which we believe we are, and our obligation to provide national security and continue with our important testing and training operations and anti-submarine warfare.

Thank you very much. I look forward to taking your questions.

[The prepared statement of Admiral Moore follows:]

PREPARED STATEMENT OF VADM CHARLES W. MOORE, JR., DEPUTY CHIEF OF NAVAL OPERATIONS FOR FLEET READINESS AND LOGISTICS, U.S. NAVY

Introduction

Chairman Snowe, Senator Kerry and Members of the Subcommittee, thank you for the opportunity to share the Navy's views regarding the Marine Mammal Protection Act and its effects on military readiness and training of our American Sailors as they prepare for combat. I appreciate your attention to this vital and timely topic, which is of great importance to national security and the environment.

The high quality of training we provide to these Sailors is perhaps unseen, yet it is an essential element of their impressive level of combat readiness. Clearly, before our nation sends its most precious asset—its young men and women—into harms way, we must prepare them to fight, survive, and win. This demands the most realistic and comprehensive training we can provide.

In the past two months, we have seen first hand, often in real time, the tangible results of high quality training. Indeed, as in Iraq, realistic, demanding training has proven key to survival in combat time and again. For example, data from World Wars I and II indicates that aviators who survived their first five combat engagements were likely to survive the war. Similarly, realistic training greatly increases our combat effectiveness. The ratio of enemy aircraft shot down by U.S. aircraft in Vietnam improved to 13-to-1 from less than 1-to-1 after the Navy established its Fighter Weapons School, popularly known as TOPGUN. More recent data shows aircrews that receive realistic training in the delivery of precision-guided munitions have twice the hit-to-miss ratio as those who do not receive such training.

Similar training demands also exist at sea as our maritime forces prepare to meet and counter emerging threats. New ultra-quiet diesel-electric submarines armed with deadly torpedoes and cruise missiles are proliferating widely. Technologies such as these could significantly threaten our Naval Forces around the world, in place to respond to a wide array of possible contingencies. To successfully defend

against such threats, our Sailors must train realistically with the latest technology, including next-generation passive and active sonars.

As we prepare today for the next conflict and look to the future, we should be concerned about the growing challenges in our ability to ensure our forces receive the necessary training with the weapon and sensor systems they will employ in combat. Training and testing on our ranges and at sea is increasingly constrained by encroachment that reduces the number of training days, detracts from training realism, causes temporary or permanent loss of range access, and drives up costs.

Encroachment issues have increased significantly over the past three decades. Training areas that were originally located in isolated areas are today surrounded by recreational facilities and urban sprawl. They are constrained by state and federal environmental laws and regulations and cumbersome permitting processes which negatively impact our ability to train.

Navy's Environmental Stewardship

The Navy continues its commitment to good stewardship of the environment. Indeed, our culture reflects this, as the men and women manning our fleet were raised in a generation with a keen awareness of environmental issues. The Navy environmental budget request for FY2004 totals $1.0 billion. This funding supports environmental compliance and conservation, pollution prevention, environmental research, the development of new technologies, and environmental cleanup at Active and Reserve bases. It is precisely as a result of this stewardship that military lands present favorable habitats for plants and wildlife, including many protected species. Ironically, our successful stewardship programs have helped increase the number of protected species on our ranges, which has resulted in less training capacity in some instances.

Sustaining military readiness today has become increasingly difficult because, over time, a number of factors, including urban sprawl, regulations, litigation, and our own accommodations to demands from courts, regulatory agencies and special interest groups have cumulatively diminished the Navy's ability to effectively train and test systems. Among the greatest threats to proper military training are laws that include ambiguous provisions and cumbersome process requirements that result in unintended negative consequences, which inhibit realistic, timely, and comprehensive training. These laws, and the court decisions which have applied them, may result in curtailing the Navy's ability to train without harm to the environment As such we believe that military readiness requirements and environmental protection are out of balance.

The Administration's Readiness and Range Preservation Initiative (RRPI) proposes modest amendments to several environmental laws, including the Marine Mammal Protection Act (MMPA), which will help restore the balance, meeting our national security needs, and maintaining good stewardship of the environment. I ask for your help to address the challenges of most concern to the Navy under the MMPA.

The Current Quiet Diesel Submarine Threat

As we enter the 21st century, the global submarine threat is becoming increasingly more diverse, regional, and challenging. Published naval strategies and current operations of potential adversaries have demonstrated that the submarine is a centerpiece of their respective navies. Diesel submarines are deemed a cost-effective platform for the delivery of several types of weapons, including torpedoes, anti-ship cruise missiles, anti-ship mines, and nuclear weapons. In addition to the United States, Australia, Canada, and the United Kingdom, 41 other countries, including potential adversary nations such as North Korea and Iran, have modern quiet submarines and many are investing heavily in submarine technology. Of the 380 submarines owned by these 41 countries, more than 300 are quiet diesel submarines.

Submarine quieting technology continues to proliferate, making submarines, operating in their quietest mode, difficult to detect even with the most capable passive sonar. The inability to detect a hostile submarine at long-range—in other words, at a sufficient "stand-off" distance before it can launch a missile or a torpedo—is a critical vulnerability that puts ships and our Sailors at risk. The threat of a quiet diesel submarine, in certain circumstances, could deny access to vital operational areas to U.S. or coalition naval forces.

Because of these threats, Navy identified the requirement to detect hostile submarines before they are close enough to use their weapons. This capability is particularly critical where there exists a concentration of forces at sea, as recently occurred in the Sea of Japan for exercise Foal Eagle, or as is planned in support of Operational and Contingency Plans in the vicinity of Northeast Asia. When it be-

comes necessary to place carrier battle groups or amphibious task forces in harms way, these valuable national assets, their supporting ships and their crews have to transit constricted bodies of water or straits. These limited areas provide the perfect opportunity for quiet diesel submarines to stalk our ships. A pre-positioned diesel submarine, conducting a quiet patrol on battery power, is extremely difficult to detect with passive sonar. The most promising system to counter this threat to Navy and national security is the Surveillance Towed Array Sensor System Low Frequency Active (SURTASS LFA) sonar system. To be effective, SURTASS LFA must be tested and evaluated for integration into the Fleet. It is not effective to be kept "on the shelf" in the event our forces need to use it in a real contingency.

Marine Mammal Protection Act

For several years, Navy and leaders in the scientific and regulatory communities that predicted that certain ambiguities in the MMPA would likely lead to court ordered injunctions blocking critical at-sea training and testing. We are concerned that these ambiguities may negatively impact on Navy's ability to conduct training and testing exercises.

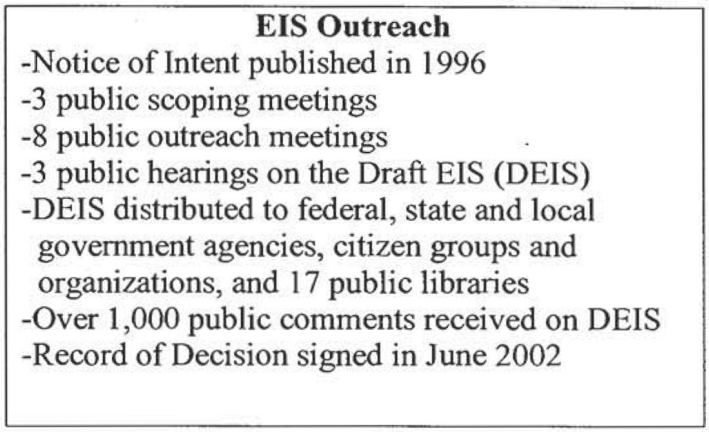
In November 2002, a federal district judge in San Francisco presiding over a case brought by environmental groups alleging violation of the MMPA, National Environmental Policy Act (NEPA), and the Endangered Species Act (ESA) issued a court order that strictly limits employment of SURTASS LFA. This advanced system is designed to detect and track the growing number of quiet diesel submarines possessed by nations, which could threaten our vital national security. The court issued a preliminary injunction restricting Navy's deployment of SURTASS LFA in the western Pacific. Navy now finds the deployment and operation of one of our most important national security assets constrained by a Federal court as a result of litigation brought by environmental groups. Future testing and employment of SURTASS LFA is in jeopardy. The MMPA was originally enacted to protect whales from commercial exploitation and to prevent dolphins and other marine mammals from accidental death or injury during commercial fishing operations. It did not address military readiness concerns.

As a result of the preliminary injunction issued by the federal district court, we have not been allowed to test and train with LFA in all of the waters in which it will need to be employed. The final hearing on the merits of this suit was held on June 30. The court has yet to issue its decision; nevertheless, the judge, speaking from the bench, expressed the same concerns over the provisions of the MMPA that she identified during the hearing on the preliminary injunction.

In meeting its obligations under current environmental laws for deploying SURTASS LFA, the Navy undertook a comprehensive and exhaustive environmental planning and associated scientific research effort. Working cooperatively with the National Marine Fisheries Service (NMFS)—one of the two Federal regulatory agencies tasked with protection and preservation of marine mammals—the Navy completed an Environmental Impact Statement (EIS), developed mitigation measures for protecting the environment, and obtained all required authorizations pursuant to the MMPA and ESA. The scientific research and EIS involved extensive participation by independent scientists from a large number of laboratories and academic organizations. The Navy also undertook a wide-ranging effort to involve the public in the EIS process through public meetings and extensive outreach. Based on this effort, NMFS developed mitigation measures to reduce potential affects on marine mammals and, in light of those measures, concluded that the planned SURTASS LFA operations would have negligible impacts on marine mammals.

Despite this effort, a Federal court issued an order constricting the limits of operation and precluding testing of a key system needed to address a clear, present, and future national security threat. Notably, there is no evidence of any negative impact on marine mammals in the single ocean area in which we are currently testing SURTASS LFA.

Despite plaintiffs' failure to produce scientific evidence contradicting the independent scientific research that the LFA system could be operated with negligible harm to marine mammals, the court opined that Navy testing and training must be restricted. In reaching this conclusion, the court noted that under the definition of harassment, the phrase "potential to disturb" hinged on the word "potential" and extended to individual animals. Quoting from the judge's opinion, "In fact, by focusing on potential harassment, the statute appears to consider *all* the animals in a population to be harassed if there is the potential for the act to disturb the behavior patterns of the most sensitive individual in the group." (Emphasis added.) Interpreting the law this broadly could require authorization (permits) for harassment of potentially hundreds, if not thousands, of marine mammals based on the benign behavioral responses of one or two of the most sensitive animals.



Highlighting how difficult it would be to apply the MMPA to worldwide military readiness activities under such a broad interpretation of harassment, the court pointed out that a separate provision of the MMPA limits permits for harassment to no more than a "small number" of marine mammals. Overturning the regulatory agency's decades-old interpretation of the MMPA, the court also said that the "small number" of animals affected cannot be defined in terms of whether there would be negligible impact on the species, but rather is an absolute number that must be determined to be "small." The court's opinion underscores shortcomings in the MMPA that apply to any world-wide military readiness activity, or any grouping of military training activities that might be submitted for an overall review of impact on the environment.

SURTASS LFA is a critical part of anti-submarine warfare (ASW). The Chief of Naval Operations has stated that ASW is an essential and core capability of the Navy. Testing and training with LFA is essential to our future success. By way of comparison, during the Cold War we made every effort to search, detect, and track Soviet nuclear submarines. In so doing, we learned their habits, went to school on their operational procedures, and worked hard to stay ahead of them. Today the nature of the submarine threat has changed. The challenge is different. Nevertheless, the court-issued restriction on testing and training with LFA has severely limited our ability to prepare for this challenge. This court opinion also highlights the challenges posed by the current language of the MMPA.

To address these issues, I ask for your consideration of the narrowly focused amendments to the MMPA's harassment definition and incidental take provisions proposed in the FY04 National Defense Authorization Act, which has now been transmitted by the President to Congress.

Summary

We face numerous challenges and adversaries that threaten our way of life. The President has directed us to "be ready" to face this challenge. To fulfill this directive, we must conduct comprehensive and realistic combat training—providing our Sailors with the experience and proficiency to carry out their missions. This requires appropriate use of our training ranges and operating areas and testing weapon systems. The Navy has demonstrated stewardship of our natural resources. We will continue to promote the health of lands entrusted to our care. We recognize our responsibility to the Nation in both of these areas and seek your assistance in balancing these two requirements.

I thank this Committee for your continued strong support of our Navy and ask for your favorable consideration of the MMPA provision contained in the DOD RRPI legislation. Passage of the RRPI provision will help the Naval services sustain military readiness today and in the future.

United States Navy
Biography

Vice Admiral Charles W. Moore, Jr.
United States Navy
Deputy Chief of Naval Operations (N4)
(Fleet Readiness and Logistics)

Vice Admiral Charles W. Moore, Jr., is a 1968 graduate of the United States Naval Academy. He earned his first Masters Degree in International Relations from Salve Regina University. A designated naval aviator and surface warfare officer qualified, Vice Adm. Moore has served in a broad range of operational, staff, and command billets.

Operational tours at sea include, two combat tours during the Vietnam conflict with VA-146 flying the A-7 *Corsair II* on board *USS America* (CV 66) and *USS Constellation* (CV 64); Assistant Strike Operations Officer on board *USS John F. Kennedy* (CV 67); two Mediterranean deployments with VA-83 on board *USS Forrestal* (CV 59); a Mediterranean deployment on board *USS Theodore Roosevelt* (CVN 71) and the shakedown cruise of *USS Abraham Lincoln* (CVN 72) as Deputy Commander, Carrier Air Wing EIGHT.

Shore and staff assignments include, instructor duty at VA-174; staff duty with Commander, Light Attack Wing ONE; Naval War College where he earned his second Masters Degree in Strategic Policy; Deputy Director, Program Resource Appraisal Division (OP-81B), Chief of Naval Operations; and in the Joint Staff, Special Technical Operations Division, Operations Directorate. Vice Adm. Moore's first flag assignment was Deputy Director for Operations (Current Operations), Joint Staff.

Command experiences include a tour as the Commanding Officer, Strike Fighter Squadron One Three One where he led his squadron into combat during the 1986 Libyan crisis while embarked in *USS Coral Sea* (CV 43) and earned the Vice Admiral James B. Stockdale Award for inspirational leadership; and as Commander, Carrier Air Wing EIGHT on board *USS Theodore Roosevelt* (CVN 71). Vice Adm. Moore served as Commander, Carrier Group FIVE on board *USS Independence* (CV 62), prior to being assigned Commander, U.S. Naval Forces Central Command and Commander, U.S. Fifth Fleet where he led U.S. naval forces in *Operation Enduring Freedom* in Afghanistan.

Vice Adm. Moore has over 5,000 flight hours and more than 1,000 carrier arrested landings on nine different carriers. He has been awarded the Distinguished Service Medal, Defense Superior Service Medal, Legion of Merit (2 awards), Meritorious Service Medal (2 awards), Air Medal (3 Individual awards and 17 Strike/Flight awards), Navy Commendation Medal (4 awards w/Combat V), Presidential Unit Citation, Vietnamese Cross of Gallantry, Republic of Korea Order of National Security Merit Cheonsu Medal, Bahrain First Class Medal, United Arab Emirates Military Medal First Class, and various unit and campaign awards.

Senator SNOWE. Thank you, Admiral Moore.
Mr. Cottingham?

STATEMENT OF DAVID COTTINGHAM, EXECUTIVE DIRECTOR, MARINE MAMMAL COMMISSION

Mr. COTTINGHAM. Thank you, Madam Chairman. I am David Cottingham. I am the Executive Director of the Marine Mammal Commission, and we appreciate the opportunity to be here today. Ordinarily the Chairman of our Commission, John Reynolds, would be here testifying, but he is in Wainwright, Alaska doing field research where he said yesterday it was snowing and they had 30-mile-an-hour winds. So I think he regrets that he cannot be here.

As we observe the 30th anniversary of the passage of the Marine Mammal Protection Act, we want to take this opportunity to reflect on some of the successes. When the statute was first enacted, there were a large number of dolphins being taken in tuna nets. Those numbers have substantially reduced. Some of the stocks of large whales have greatly recovered in the 30 years since then. We have made a lot of progress working with the other agencies here and those in State government on protecting and conserving marine mammal stocks under this act, as it was very forward thinking.

Many of the research and conservation actions involving marine mammals presently occur in response to acute controversial conservation problems. We focus on these crises and, really, we miss the opportunity a lot of times to take a broad-based approach, an interdisciplinary and anticipatory approach to research and management.

In two weeks, the Commission is convening a meeting in Portland, Oregon where we are bringing together a group of world renowned scientists to help us determine what some of the future projections on research and other scientific and management issues will be.

Senator Snowe, you mentioned in your opening remarks some comments about ocean noise. This year in the appropriations bill Congress asked the Marine Mammal Commission to hold a series of international conferences on acoustic threats in the marine environment. I would like to report to you that we are well on our way to setting up those meetings. We are working with the U.S. Institute for Environmental Conflict Resolution in Tucson, also known as the Udall Center, to get some facilitators so that we can identify and work through those threats, identify some of the research priorities, and talk about what some of the appropriate mitigation measures are in light of some of the large uncertainties that we now have as pointed out in the National Research Council report.

Ms. LENT AND MR. Jones have covered many of the topics that are in the administration bill. The Commission worked very closely with those agencies and others in the Government on that bill, so I do not think there is a need for me to go through point by point as they have done.

I will comment on the harassment definition, as all the members have. We worked hard in the administration to come up with a definition that we thought would work and be effective for marine mammals. There are a lot of other definitions out there. I commend your staff on both the Democratic and Republican side for working with a variety of interests to find that right mix of words between meaningful disruptions and significant activities and biological behavior patterns. It is very difficult to come up precisely in legislation with what that might mean for a whale versus a manatee versus a seal. And the staff, both in the Senate and in the House, has been trying very hard to refine these things and come up with definitions that will work.

Regardless of what definition you put in legislation, it will be up to the agencies to come up with some interpreting language and set those bars, and we think that is going to be very important as they do that, working with the staff as they go through to define that.

The bill that the administration has put forward provides a number of clarifications. It touches on a lot of the points that these folks have already mentioned. We think, overall, it would be a great move forward and advance the cause of marine mammal conservation and management. We are happy and eager to work with you, your staffs, and other agencies as we go through this process. We look forward to it, and we will be happy to answer any questions you may have. Thank you.

[The prepared statement of Mr. Cottingham follows:]

PREPARED STATEMENT OF DAVID COTTINGHAM, EXECUTIVE DIRECTOR, MARINE MAMMAL COMMISSION

Thank you for providing the opportunity for the Marine Mammal Commission to share its views with the Committee regarding reauthorization of the Marine Mammal Protection Act. We recently observed the Act's 30th anniversary and took that opportunity to reflect on the statute's successes and the challenges that remain. Under the Marine Mammal Protection Act much has improved. Many marine mammal populations have grown significantly since passage of the Act, including some stocks of large whales that had been threatened by commercial whaling. Observed dolphin mortality associated with the eastern tropical Pacific tuna fishery has been reduced from hundreds of thousands per year to less than 2,000. Nevertheless, the depleted dolphin stocks used to locate schools of large tuna do not appear to be recovering as one would expect. Other species and stocks, such as northern right whales and Hawaiian monk seals remain critically endangered. New threats to marine mammals are emerging, such as retreating ice coverage in polar areas, which is having adverse effects on habitats used by Arctic species such as the polar bear. Other possible threats require further study, such as noise in the marine environment, that may be disrupting or interfering with vital marine mammal behaviors. The Commission is in the process of planning a series of international workshops on the effects of ocean noise to identify information gaps and the actions needed to help us better understand the nature and extent of the possible impacts and to identify needed management actions.

In previous testimony concerning the Marine Mammal Protection Act, the Commission's Chairman has observed that most research and conservation actions involving marine mammals are taken in response to acute, often controversial conservation problems. Current legislation largely reflects this reactive approach to management. As we focus on past and emerging crises we may miss opportunities to develop a more broad-based, interdisciplinary, and anticipatory approach to research and management that could enable us to identify and act to address potential conservation problems before they become serious and controversial. Along these lines, the Commission is convening a meeting of international marine mammal experts this summer to identify comprehensive research needs and to map out a long-term strategy for pursuing such projects. I would be happy to discuss these and other efforts being carried out by the Commission in furtherance of its responsibilities under the Marine Mammal Protection Act during this hearing as time permits or at another time at the Members' convenience. I now turn to the immediate task at hand, providing you with our recommendations concerning reauthorization of the Act.

The Marine Mammal Protection Act was last reauthorized in 1994, at which time Congress enacted significant amendments to the statute. While those amendments, for the most part, have improved operation of the Act, ten years of experience with implementing those provisions have uncovered certain problems that we and the other agencies charged with implementing the Act believe merit the Committee's attention during reauthorization. In large part, the recommended amendments included in the Administration's bill were developed to address those shortcomings. The Commission participated on an inter-agency working group to develop the Administration's proposal. Passage of the bill that we and the other agencies testifying before you today have developed will lead to more effective conservation of marine mammals. Although other, technical amendments have been proposed, the key issues addressed in the Administration bill are summarized below.

The 1994 amendments added section 119 to the Act to encourage the National Marine Fisheries Service and the Fish and Wildlife Service to enter into cooperative agreements with Alaska Native organizations to conserve marine mammals, to provide co-management of subsistence use, and to authorize funding for activities under

those agreements. The process has worked well, and cooperative agreements are in place with a number of Alaska Native organizations. The key shortcoming with the existing provision is that it does not provide a mechanism for true harvest management under which the parties can establish enforceable limits on the numbers of marine mammals that may be taken for subsistence and handicraft purposes or on the time and manner of taking. Having such authority would have allowed the resource agencies and Native leaders to implement responsible harvest management measures to stave off situations such as that that led to depletion of the Cook Inlet stock of beluga whales. As it was, the National Marine Fisheries Service and the majority of Native hunters had little recourse but to watch as a small group of hunters seeking financial gain overharvested the stock to the point of depletion. It was only after the Service designated the stock as depleted that it was able to establish mandatory limits on further taking by Alaska Natives. By that point, however, the population had been reduced to such low numbers that draconian measures were needed to bring about recovery of the stock—restrictions that could have been avoided if effective management could have been implemented earlier. The Administration bill includes a proposal, worked out cooperatively with Alaska Native representatives, that would cure this statutory deficiency and minimize the risk that similar situations will arise in the future.

The permit provisions of the Act were significantly revised in 1994. The package of permit-related amendments enacted at that time added a new, generally applicable prohibition to the Act—a prohibition on exporting marine mammals. Being focused on permits, however, the amendments neglected to provide exceptions to authorize marine mammals, and marine mammal parts and products, to be exported in all cases where such exports previously had been allowed. In fact, the only exceptions included in the 1994 amendments pertained to exports for purposes of public display, scientific research, and species enhancement. Exceptions authorizing exports in other situations are needed, including for handicrafts made and sold by Alaska Natives, as part of cultural exchanges among Alaska Natives and Natives from other Arctic countries, under waivers of the moratorium, etc. The Administration bill takes a comprehensive approach to this problem by including specific authority not only for exports, but related transport, purchases, and sales.

Although transfers of marine mammals currently are authorized for purposes of public display, scientific research, and enhancement to foreign facilities that meet requirements comparable to those applicable to U.S. facilities, no mechanism is in place for issuing permits to authorize a foreign applicant to take and export marine mammals directly. That is, sections 101(a)(1) and 104(a) of the Act refer only to permits authorizing the taking or importing of marine mammals, but not exports. The amendments set forth in the Administration bill would clarify that such permits can be issued to qualified applicants. We understand that some representatives of the public display community are concerned that the Administration bill would require facilities to obtain permits for exports where one is not required now. A close examination of the proposed amendments will reveal that this is not the case. Transfers from domestic facilities to foreign facilities that meet the Act's comparability requirements would still be allowed without a permit. However, under the Administration's proposal, issuance of an export permit in to a foreign applicant in the first instance would become an available option. That is, the proposed authority for issuing export permits would supplement, but not roll-back, the 1994 permit amendments.

One other problem created by the 1994 amendments related to exports pertains to the prohibition section of the Act. As originally enacted in 1972, the prohibition on transporting, purchasing, and selling marine mammals applied only if the animal had been taken in violation of the Act. Recognizing that this created untenable enforcement problems—for example, when the animal was originally taken for a permissible purpose, *e.g.,* Native subsistence, but later transferred for an impermissible purpose—Congress amended the provision in 1981 to remove the linkage between the underlying taking and the subsequent, unauthorized act. For unexplained reasons, and perhaps inadvertently, when the export prohibition was added to section 102(a)(4) in 1994, the drafters reverted to the pre-1981 language. This has resurrected the enforcement difficulty that Congress recognized and originally fixed more than two decades ago. A similar amendment to fix the problem anew is needed now.

Another key aspect of the 1994 permit amendments was clarifying that exclusive jurisdiction for most aspects of the maintenance of marine mammals in captivity rests with the Animal and Plant Health Inspection Service under the Animal Welfare Act. One result of this shift in agency jurisdiction was the nullification of a longstanding National Marine Fisheries Service policy against authorizing traveling cetacean exhibits. Although the Animal and Plant Health Inspection Service has recognized that such exhibits pose heightened risks to the animals involved, it does

not believe that it has sufficient authority to prohibit them by regulation. Because of this, and the undue risks posed to dolphins and other cetaceans in transient facilities, the Commission and other agencies recommend that these exhibits be expressly precluded by statute.

Another issue concerning captive marine mammals that merits Congressional attention is the release of long-term captive marine mammals. The release of these animals poses risks both to the animals being released and to the wild populations with which they come into contact. As such, releases should only be attempted when there has been sufficient training and health screening of the animals to be released and when an adequate monitoring program is in place. While releases arguably constitute harassment under the current definition of that term, there is a need for certainty that releases are prohibited absent specific authorization. In his regard, we note that the Administration's proposed release amendment would not apply to the return of stranded/rehabilitated animals or to temporary releases undertaken as part of the training or deployment of marine mammals as part of the Navy's marine mammal program.

The centerpiece of the 1994 amendments was the adoption of a new regime to govern the incidental take of marine mammals by commercial fisheries. By focusing on whether or not the catch is sold, however, the amendments created a situation where certain "recreational" fishermen, who fish in the same areas as commercial fishermen, use identical or similar gear, and target the same species, are not covered under the regime simply because they choose to keep the fish for their own use. The Administration proposal would address this incongruity by expanding the current regime to include not only commercial fisheries, but recreational fisheries that take marine mammals frequently or occasionally (category I or II fisheries). In this way, these fishermen would be covered under the section 118 taking authorization and would be accountable for implementing take reduction measures and for meeting the reporting and other requirements applicable to their commercial counterparts. The Administration bill also includes proposed amendments to section 118 designed to improve the operation of the take reduction process.

Another important change to the Marine Mammal Protection Act enacted in 1994 was the addition of a statutory definition of the term "harassment." That amendment was intended to bring greater certainty to determining what would and would not constitute a taking by harassment. However, that amendment has not had the desired result. Some argue that the definition is too narrow in that it requires an underlying "act of pursuit, torment, or annoyance" to constitute harassment. Others observe that the definition is too broad in that it arguably includes acts with *any potential* to disturb a marine mammal. The Administration proposal would address both of these concerns. First, it would expand the definition to clarify that it includes any act that has, or can be reasonably be expected to have, certain impacts. Second, the proposed definition would raise the threshold for Level B harassment to the point where disturbance would have to occur or be likely to occur. In addition, the Administration proposal contains a new subpart that would address activities *directed* at marine mammals (*e.g.,* intentional pursuit or close approaches) that are likely to cause disturbance, regardless of whether the response is significant or not.

There are also provisions of the Act apart from those amended in 1994 that need to be revisited during the reauthorization process. For instance, certain provisions have not been updated to reflect changed circumstances since they were originally enacted 30 years ago. Foremost among these are the penalties and fines available under the Act, which have not been increased since originally enacted in 1972. The Administration proposal would bring the Marine Mammal Protection Act penalty provisions into parity with those under other natural resource statutes and reflect changed economic circumstances since the early 1970s.

Likewise we advocate updating a spending limit peculiar to the Marine Mammal Commission. Section 206(4) of the Act authorizes the Commission to secure the services of experts or consultants, but limits the amount that can be spent to $100 per day. That limit essentially precludes us from obtaining these types of services in today's economy. To address this problem, the Administration bill would eliminate the $100 limit and put the Commission on an equal footing with other Federal agencies when it comes to procuring such services.

The Marine Mammal Commission also believes that there is a need to improve enforcement efforts under the Marine Mammal Protection Act. In this regard, the administration proposal would tighten the harassment definition to make cases based on directed taking easier to prove. The Administration bill would also allow the National Oceanic and Atmospheric Administration to retain fines collected for violations of the Act, which could be used to offset enforcement expenses. This is something that the Fish and Wildlife Service is currently authorized to do. In addition, the Administration bill would direct the National Marine Fisheries Service and

the Fish and Wildlife Service to pursue cooperative agreements with State law enforcement agencies to improve local enforcement efforts under the Marine Mammal Protection Act.

Another major challenge under the Marine Mammal Protection Act reflected in the Administration bill is securing the recovery of highly endangered species, such as the northern right whale. The North Atlantic stock, which numbers about 300 individuals, remains vulnerable to extinction due, in part, to ship strikes and entanglement. The Administration bill highlights the ship strike issue as one requiring priority attention. One of the difficulties impeding progress in addressing this source of mortality is a lack of agreement concerning the existing legal authorities that can be brought to bear on the issue. In this regard, the Marine Mammal Commission has just entered into a contract for an independent assessment of what can be done under current legislation and existing international agreements to address this problem.

That concludes my testimony. I would be please to respond to any questions that you may have.

Senator SNOWE. Thank you, Mr. Cottingham.

Would you like to make a statement, Senator Stevens?

STATEMENT OF HON. TED STEVENS,
U.S. SENATOR FROM ALASKA

Senator STEVENS. Madam Chairman, I would like to make a statement. I have to go back to the floor on appropriations.

I am constrained to start out by saying to Mr. Cottingham I think our job is to fashion a statute that does not have to be interpreted by you or by the courts.

Let me read to you what that judge said in California. In fact, by focusing on potential harassment, the statute appears to consider all the animals in a population to be harassed if there is a potential for the act to disturb the behavior of the most sensitive individual of the group of hundreds of thousands of mammals. The Navy needs to be stopped with its research if it is charged with harassing one individual.

Yet, I put before the Committee today the story from the *Washington Post* about a group of orcas that consumed 700 harbor seals in a week. They are not charged with any harassment.

[Laughter.]

[The *Washington Post* article follows:]

From Ocean Icons To Prime Suspects

Orcas Devastate Seal, Otter Populations

By Blaine Harden
Washington Post Staff Writer

SEATTLE—Much to the horror of local harbor seals, killer whales from out of town popped into Puget Sound recently for an eight-week feast.

Eleven killer whales, each eating one or two 180-pound seals a day, polished off about half the harbor seals in Hood Canal, a deep-water finger of Puget Sound that runs along the eastern edge of the Olympic Peninsula.

By early March, the killer whales had had their fill—about 700 harbor seals. The transient predators swam back out to the Pacific, leaving behind a deeply traumatized community of harbor seals.

"They were up on the bank quivering," said Steve Jeffries, a marine mammal biologist who works for the Washington State Department of Fish and Wildlife

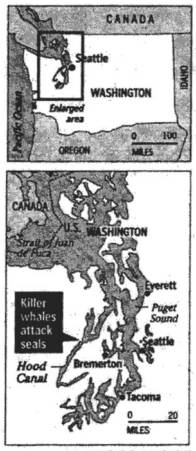
Puget Sound harbor seals are not quivering alone. Killer whales, a beloved icon of the environmentalist movement, may be on a species-threatening rampage.

In the past 15 years, killer whales—also called orcas—have wiped out entire populations of sea otters on some of the Aleutian Islands in Alaska. They are also prime suspects in the otherwise unexplained disappearance in the past 30 years of 80 percent of Alaska's Steller sea lions.

According to a new theory of killer whale predation, the highly intelligent, pack-hunting creatures have been forced by man to change their dining habits and are voraciously killing a cascade of mammalian prey from the North Pacific to Antarctica. Over the past 50 years, according to the theory, killer whales have caused sequential worldwide declines in the population of various seals, sea lions, minke whales and sea otters.

The predation theory, which is the focus of a meeting this weekend of more than 50 marine scientists in Santa Cruz, Calif., blames the destructively changing tastes of killer whales on industrial whaling.

By its peak in the early 1950s, before international bans, highly mechanized whaling had reduced most species of big whales to a fraction of their historical numbers. In the North Pacific and southern Bering Sea prior to whaling, the gross estimate of whale biomass was about 30 million tons. By the time whaling ended, 3 million tons of living whale remained.



BY LARRY FOGEL—THE WASHINGTON POST

"When that happened, some killer whales, which had been preying on big whales, had to do other things to make a living," said James A. Estes, a research scientist in Santa Cruz for the U.S. Geological Survey and an originator of the theory that whaling forced some killer whales into novel eating habits.

"When the number of prey was insufficient to satisfy them—they do eat a lot—they moved on to something else and they did it in a sequential way," said Estes, who concedes that the predation hypothesis is speculative. "My gut feeling is that it is right, but it could very well be wrong."

The precipitous decline of sea otters in some parts of Alaska is the best-documented case of *nouvelle cuisine* for killer whales. It is also the most nutritionally curious. A sea otter is not particularly satisfying for a killer whale, which is the largest known predator of warm-blooded animals. Orcas are about 26 feet long, weigh 10 tons and eat about 4 percent of their body weight a day. A sea otter weighs about 40 pounds, which includes

A small group of orcas ate 700 harbor seals in eight weeks in Hood Canal in Washington state before swimming back to the Pacific.

the thickest fur of any animal.

Sea otters are "dental floss" for killer whales, said Robert T. Paine, professor emeritus at the University of Washington's biology department. An orca needs to eat seven sea otters daily to fill up.

In the North Pacific, a half-century of steep sequential decline in the population of sea lions, harbor seals and sea otters "jives well" with the theory of shifting overkill on the part of killer whales, according to Alan M. Springer, a research professor at the University of Alaska's Institute of Marine Science in Fairbanks.

Researchers in Alaska have not found a decline in food or habitat—or an increase in illegal hunting—that explains the sudden disappearance in some areas of seals, sea lions and sea otters. There has also been a notable absence of carcasses along the Alaskan coast. Killer whales often eat smaller prey in a single gulp.

It does not take very many killer whales to ravage a large healthy population of small marine mammals, according to Springer, a marine ecologist who is presenting a paper supporting the predation theory in Santa Cruz.

"You don't have to gather all the killer whales in the North Pacific to get this to happen," he said. "A surprisingly small number—we are talking tens of killer whales—could have done this to the sea otters."

The killer whale world, with an estimated population of 30,000 to 80,000, is roughly divided between fish and mammal eaters. Those that eat mostly fish tend to live in resident pods, or family groups, that stay in one area. Those that eat mostly mammals tend to travel in transient pods that roam the oceans. Killer whales, the largest member of the family of oceanic dolphins, live from 50 to 80 years, and it is not uncommon for members of a pod to have hunted together for more than half a century.

In the Southern Hemisphere, where killer whales are most numerous, there has also been a sharp sequential decline in two species of marine mammals since whaling was banned in the 1950s, according to Trevor A. Branch, a graduate student at the University of Washington's School of Aquatic and Fishery Sciences.

Starting in the 1950s, he said, the number of southern elephant seals plummeted between 45 and 80 percent before stabilizing at a low level in the 1980s. At that point, the number of Antarctic minke whales (which are roughly the same size as killer whales) began to swoon, declining by about 57 percent through the 1990s.

"There is circumstantial evidence that killer whales went after elephant seals and then minke whales," said Branch, who is also presenting a paper at the conference in California.

Circumstantial evidence notwithstanding, there are many marine mammal researchers who don't buy the theory that killer whales are laying sequential waste to marine mammals worldwide.

"They are generalizing across the entire world with so little real evidence," said Craig Matkin, a marine mammal biologist from Homer, Alaska, who has studied killer whales for 20 years.

To start with, Matkin and other biologists say, there is no compelling historic evidence that large number of killer whales were ever dependent on the large whales wiped out by industrial whaling.

Matkin said he also worries that blaming killer whales for recent sharp declines in numbers of some marine mammals will give politicians and bureaucrats an excuse not to protect coastal water quality and habitat.

"It is the Greenpeace nightmare," writes Branch, the researcher at the University of Washington. "Antarctic minke whales are the banner-waving symbol of the anti-whaling movement, but so is 'Free Willy' [a movie-version killer whale is freed from an evil marine park owner]. What do you do when one is decimating the other?"

For the scientists meeting this weekend in Santa Cruz, that question is unanswerable. No one is proposing that killer whales be killed for inappropriate eating. In any case, federal law protects all marine mammals.

"The only possible test is the future," said Estes, the scientist who has popularized the predation theory. "If we manage to save the great whales and they recover, we might see transient killer whales go away from smaller marine mammals."

In the case of the slaughtered harbor seals of Hood Canal, the killer whales may well have done an ecological good deed.

By historic standards, there are too many harbor seals inside Puget Sound, and they are feasting on endangered summer chum salmon. Since the Marine Mammal Act protects the seals, there was little that could be done to protect the salmon—until the transient killer whales showed up for an extended meal.

Senator STEVENS. We will come up with a statute that defines harassment or I will oppose the bill. I think we have got to get very specific about it. I am really getting very tired of courts tying up whole units of our society because one judge thinks that somehow or other we have improperly written the statute. That is, in effect, what that judge said.

I thank you, though, Madam Chairman, for holding this hearing today, and I want to introduce one of my constituents and an old friend who is the Executive Director of the Alaska commission that was established in 1994 to represent hunters in villages in northwest Alaska and the negotiation with Russia on the Polar Bear Treaty. The Polar Bear Treaty received a hearing at the Senate Foreign Relations Committee last month, and it is my hope the

Senate will ratify the important management agreement that it contains before the August recess.

I thank you very much, Charles, for coming back this far. He is from Nome incidentally, a little south of Wainwright, but Charles told me it was 82 in Anchorage yesterday. So maybe your people ought to come just a little further south from Wainwright. That is all.

[Laughter.]

Senator STEVENS. I do hope that the Committee will reflect on this whole act. I remember when we had the moratorium in 1972. It was just a moratorium, and suddenly we turned around and that moratorium became an act to prevent the taking of marine mammals. At that time, as you have said, Mr. Cottingham, there were nets that were intercepting a great many mammals, and we deplored those in Alaska, particularly the drift nets and a lot of other nets. As a matter of fact, the Alaskans were the ones who went to the U.N. to get the drift nets banned.

But there were mammals then that were in danger of extinction because of taking—not because of harassment, but because of taking. We decided to help restore the reproductive capability of the mammals and protect them as we had the fisheries in the basic 200-mile limit bill.

Unfortunately, the threat that comes now is this time-consuming litigation from these extreme environmental groups. They are the people who are doing harassing now, and I think maybe we need a protection statute against extreme environmental litigation. Marine mammals cannot be managed properly when they are harassed by the courts because of this extreme litigation. It is so arduous now that scientists in Alaska are often denied to access the information they need to perform the research to protect and manage the mammals.

I think NOAA has to look closely at its process for issuing research permits, to make sure that it properly considers the unique conditions in the environment where these mammals spend their time, particularly in areas like mine in the State of Alaska. There is a very small window of reasonable weather when the research can be conducted, but somehow or other the courts and those who administer the act put unreasonable restrictions on research in the period of time when it would be most convenient and most effective.

I do believe the administration's proposal and the new section, Madam Chairman, will allow the Departments of Commerce and Interior to enter into harvest management agreements with our Alaska Native tribes in order to conserve both depleted and nondepleted stocks of marine mammals is a good amendment. It would authorize Alaska Natives to design and implement and enforce management plans within the Marine Mammal Protection Act. There is merit to these management agreements because we can develop plans to deal with the stocks that are not depleted and prevent them from becoming depleted.

I do want to point out had we had such an agreement in place before the dramatic decline of the beluga whales in the Cook Inlet, we could have managed those properly. The Alaska Native Commission already has proven success in co-management of marine

mammals, and I urge you to listen to my friend, Charlie Johnson, when he appears before us.

I am speeding through my statement here. It is a long one, Madam Chair. I hope you will put the whole statement in the record.

Senator SNOWE. Without objection, so ordered.

Senator STEVENS. This past December the National Academies found that diminished food supply is not the cause of the decline of the Steller's sea lion. I asked the academy to scrutinize the theory that was presented as part of the law that was passed in the Congress to secure better science on the cause of the sea lion decline. I believe that better science and better research will show that fishing is not the cause for the decline in sea mammals in any area that we have because we have already had the act to protect those that were being harvested and were being impacted so heavily by fishing in the past.

Now, the National Academy of Science study notes the greatest threat to the weakened population of sea lions is from the impact of predators such as the killer whale and the overall oceanic and climatic shift in the north Pacific. The good news is that the National Marine Fisheries Service released results from an aerial survey that showed for the first time in 2 decades an overall increase of 5.5 percent in the sea lion population. I think that is because we used common sense and good science in dealing with the sea lion, and charges were made that the fishing community in my State was responsible for the decline of the sea lion.

The focus and funding given to the Steller's sea lion research was critical I think in beginning to understand this complex species and what can be done to correct this trend.

Harbor seals and sea otters are next in the marine mammal weakened population area in my judgment. As I pointed out before, I do hope everyone will look at that story from the *Washington Post*. We were out of town when it was published, Madam Chairman, but I call it to your attention and everyone's attention. 700 seals by this one pod of killer whales, and then they went back to the South Pacific.

I really think Congress needs to address the marine mammal issues in general as we addressed the Steller's sea lion issue. Good science. Give us the research and give us the capability to deal with them and protect them. But do not start this business of extending a statute so that an accidental bumping into one mammal is harassing a population of hundreds of thousands of mammals.

I think this extension by the courts is something that has just got to stop, and I am particularly worried about the Navy because if you are not familiar with what the Admiral was talking about, about the increasing threat to the United States in the future from these submarines we cannot detect, then you better wake up. I just cannot believe, Madam Chairman, that we will leave to the courts or, with due respect, leave to anyone in an executive position the power to define what we should define. If we want to prevent harassment, we should define what it means, and it does not mean the simple bumping into one of hundreds of mammals should lead to an injunction against an action like developing a new system to protect our country.

I assure you, Admiral, we will watch this very carefully, and those of us who do handle defense matters are going to become extremely concerned if the Congress will not address this issue and give you the freedom you need while at the same time giving us the tools to protect those mammals that might be endangered by real action that could cause their death or injury.

I am rushing on because I know I am late and I have taken too much time already, Madam Chairman.

The thing that bothers me is this is just another example of an action we took quickly to prevent one portion of an industry from harming a portion of the sea mammal population, and the moratorium worked. But Congress made it a permanent act and did it in such a rush that it did not really define what it meant when it talked about harassment. Now, I think we have got the time now to do that and I urge you and urge our staffs to work on it because I assure you I mean what I say. I will oppose the bill unless we find a way to define harassment so it will be understandable by the courts, by the administration, and by everyone that must join us in protecting the ocean mammals.

Do not misunderstand me. Charlie Johnson will tell you, many of our people are sustained by ocean mammals. Many of them actually even worship ocean mammals. So we are not people who are in any way going to be associated with activity that would harm them. We want to protect them, but we want to protect them with common sense legislation that everybody can understand.

Thank you very much.

[The prepared statement of Senator Stevens follows:]

PREPARED STATEMENT OF HON. TED STEVENS, U.S. SENATOR FROM ALASKA

Thank you, Chairwoman Snowe, for holding this hearing on the Marine Mammal Protection Act. I would like to recognize one of the witnesses on the second panel from the State of Alaska, Charles Johnson, Executive Director of the Alaska Nanuuq Commission, which was established in 1994 to represent hunters and villages in North and Northwest Alaska in the negotiation of the U.S./Russia Polar Bear Treaty. The Polar Bear Treaty received a hearing in the Senate Foreign Relations committee last month and it is my hope that the Senate can ratify this important management agreement before the August recess. Charles, thank you for traveling all the way from Nome, Alaska to be here today. Your testimony and perspectives on whether the Marine Mammal Protection Act is working effectively will be important for this Committee to fully understand.

When the Marine Mammal Protection Act became law in 1972 it followed a moratorium on the taking of marine mammals. The Act was passed to protect certain marine mammals that are in danger of extinction or depletion; help restore the reproduction capability of mammals if they fall below their optimum sustainable level; and achieve a better understanding of the ecology and population dynamics of marine mammals.

However, like many of our marine resource laws, the threat of costly, time-consuming environmental litigation hangs over this Act like a black cloud. Marine mammals cannot properly be managed because researchers are not permitted to go near them. The permitting process is so arduous that scientists in Alaska are often times denied or are significantly delayed in acquiring permits needed to perform research to protect and manage the species. NOAA needs to look closely at it's process for issuing research permits to make sure that it properly considers the unique environments that exist in areas like Alaska. We have a small window of reasonable weather when research can be conducted.

The Administration's proposed bill adds a new section (119A) that allows the Departments of Commerce and the Interior to enter into harvest management agreements with Alaska Native tribes in order to conserve both depleted and non-depleted stocks of marine mammals. The provision would authorize Alaska Natives to design, implement and enforce management plans within the MMPA.

There is merit in allowing harvest management agreements to be developed for non-depleted stocks of marine mammals. However the Alaska marine mammal commissions currently authorized in the Act are the best organizations to receive this authority, not the 227 tribes now recognized in Alaska. Had a pre-depletion co-management agreement been in effect in Cook Inlet, we could have likely avoided the dramatic decline that led to a depleted listing for that family of Beluga whales.

Alaska's Native commissions already have proven success in the co-management of marine mammals. The Nanuuq Commission's work on the polar bear, the Alaska Native Harbor Seal Commission, the Alaska Sea Otter and Steller Sea Lion Commission, the Eskimo Walrus Commission, the Alaska Beluga Committee, and the Alaska Eskimo Whaling Commission all work well with their respective Federal agencies on the management and study of marine mammals throughout Alaska. The co-management agreements under the MMPA should remain with the various Alaska marine mammal commissions.

This past December, the National Academies found that diminished food supply is *not the cause* of decline for Steller Sea Lions in Alaska. I asked the Academy to scrutinize this theory as part of the law Congress passed to secure better science on the causes for Sea Lion decline. I believed that better science and research would show that fishing was not the cause of this decline. The National Academy of Sciences study noted the greatest threat to the weakened population of sea lions was likely from impacts such as killer whale attacks and the overall oceanic and climatic shift in the North Pacific. However, the good news is the National Marine Fisheries Service released results from an aerial survey that showed for the first time in two decades an over-all increase of 5.5 percent in the Steller Sea Lion population from 2001–2002.

The focus and funding that was given to Steller Sea Lion research was critical to beginning to understand why this complex species is declining and what can be done to correct this trend. Harbor seals and sea otters are potentially the next marine mammals to experience weakened population trends similar to Steller Sea lions. A recent *Washington Post* article reported that eleven killer whales consumed about half the harbor seals in Hood Canal in Puget Sound, roughly 700 seals, in eight weeks. I hope the Steller Sea Lion crisis reminded us that predation of other creatures of the seas often has much to do with a species decline than man's actions. Congress should address the Harbor Seal issue in this Act before the environmental industry attacks our fishermen with their next debilitating lawsuit.

Senator SNOWE. Thank you very much, Chairman Stevens, for your excellent statement. I appreciate your comments and your input.

Mr. Cottingham, you want to address something?

Mr. COTTINGHAM. Senator, if I may. I think the administration bill does exactly what you are saying and it talks about a better definition exactly like you are saying. So it is not for individual——

Senator STEVENS. Well, I look forward to working with you, I am sure.

[Laughter.]

Senator SNOWE. Well, let us follow up on some of the issues that Senator Stevens has raised and ones that are of concern in terms of the ambiguity in these definitions of harassment. I think the real question is whether or not we can reconcile the differences in terms of the different perspectives on this issue. I am also concerned about whether or not this language, as proposed by the administration, will add to the ambiguity or is this going to be clarifying, less than clarifying, or are we elevating the threshold, because I think it gets back to the purpose of the act.

I agree with Senator Stevens that we have to find a way to address these issues, particularly because of the impact as well on the Navy. Obviously, we are trying to develop a common sense approach to this issue. As a result of the lawsuits and court injunctions, we are finding difficulty with the current definitions. On the

other hand, I do not want to create unintended consequences by changing the definitions only to invite other issues and problems.

It all does get back to the fact that we lack the research and the science on which to predicate our decisions. I think that that truly is regrettable that we missed an opportunity during this last decade to make the kind of investments in research so that we have a better understanding of the impact of noise on our marine mammals so that we could better ascertain exactly what we need to be doing in guiding this legislation.

But we are here today and the question is we have to make these investments. Some of the recommendations made by the National Research Council make a great deal of sense. For example, they recommend a lead agency for this type of research. What is your response to that, Dr. Lent? Do you think that is a good idea? And which agency would assume that leadership on research? Because I think, frankly, we have to provide leadership on this issue.

If we do not have the information by which to design these statutes, it does create serious problems. Obviously, it has in this instance. So it is very difficult to put one foot ahead of the other when you do not have that type of information. So we are out here grappling with this problem and we are really uncertain of the magnitude and the extent of the impact of noise on our marine mammals as we find different ways to define harassment.

Dr. LENT. Madam Chair, we have not had discussions about which agency would take the lead. I am sure we could work with our partners to determine what is the most effective way in terms of taking a lead. I agree that the administration proposal does clarify the definition of harassment. It makes it a lot less broad. Right now, arguably, if you walk down the beach and a seal turns its head to look at you, you are harassing. We want to zero in on those activities where it is pretty clear you are having a significant biological impact on the animals.

I want to stress also that we are certainly no strangers to litigation at NOAA Fisheries. We have 100 active lawsuits not just on marine mammals. One of the areas where we need to focus is not just the definition of harassment, but making sure we are following the appropriate processes. Under the Endangered Species Act, which some of these mammals do fall under, we have to make sure we are doing the appropriate section 7 consultations.

Also we have to do better NEPA analysis. In some cases we have lost just on a procedural matter. We want to make sure we are doing good NEPA not just as a matter of process but also as a matter of substance, making sure we are looking in particular at cumulative impacts.

Admiral MOORE. Senator Snowe, could I comment?

Senator SNOWE. You may, Admiral.

Admiral MOORE. In the Navy, for low frequency active sonar, as I have mentioned, we have invested $10 million in research, and since then we have been continuing to invest in the neighborhood of $7 million to $8 million a year. We believe we invest more in marine mammal research than anybody else in the United States.

Our recommendation for the changing of the definition of harassment was based in large part on that research in that these significant changes in behavior are measurable based on the data that we

have collected in our research. The research was done by Cornell University and Woods Hole and concluded that the low frequency active sonar would not result in significant biological effects on marine mammals. So we believe in the Navy that the current definition, as we have put forward in this legislation, is based on scientific research and is supportable by the scientific data that we have collected and will continue to develop over time.

Senator SNOWE. We are going to hear about concerns about using the word "significant" because it could be viewed as ambiguous or vague or undefinable. So I do not know if it is going to be a question of semantics or how the courts will interpret it. I would be interested in knowing the basis for this language that somehow it would be more discernable in the eyes of the court as to what the impact is precisely on marine mammals. Obviously we are making some changes by adding "significant," and deleting reference to "pursuit, torment, or annoyance."

Admiral MOORE. What we have said, Madam Chair, is that significant changes in behavior would be those behaviors such as migration, breeding, and feeding. These are behaviors that we can observe in some detail and measure. Based upon the knowledge that we have gained in our research on our own systems, then we can take the data we have collected on research of the mammals, use the data we have on our own systems, and can make a fairly precise determination, not totally precise, but a fairly precise determination, as to what we believe the effect will be.

Senator SNOWE. You mentioned one experience this morning with the Navy. How many instances can you cite in which the language in this act has prevented deploying low frequency active sonar?

Admiral MOORE. Well, low frequency active sonar would be a case in and of itself. We have developed the system. We attempted to get the permit, and we are now limited in testing and training to this area out western Pacific.

Senator SNOWE. To one area?

Admiral MOORE. The most significant other case, our little warfare development capability was a broad range of systems that we were trying to bring forward. Because of the definition of harassment, we went through a lawsuit there and we took significant mitigation actions to be able to continue working in that area. But those would be the two most significant.

Of course, they are both at sea and clearly these systems are underwater warfare systems. They involve the use of sonar in the water and that is where this definition of harassment will impact us. As we take forward systems and capabilities that we are going to use underwater, then this definition of harassment will have a significant effect on us if we do not change it.

Senator SNOWE. How was confining it to the area that you just mentioned affected the Navy's readiness? How does it affect the Navy's potential for readiness? Does it in this instance?

Admiral MOORE. Yes, ma'am. Readiness, of course, connotes the future. Ready for what? Ready for what might happen in the future. And this is why I mentioned this example of we have done a great job in our recent conflicts, Enduring Freedom and Iraqi Freedom, but in those we did not face an underwater threat. We

did not face an adversary that possessed submarines. Those that we see in the future, those that are of most concern to us now, as I mentioned, in the western Pacific, both of those potential conflicts—those adversaries or potential adversaries possess significant underwater warfare capability in the form of submarines. It is their top priority defense project. It is where they are making investments more than in any other area because they know that this capability is what they need to interdict this U.S. force as it deploys forward.

So this is why we have brought it forward as a readiness issue. This is our number one concern, at least in the United States Navy. Our number one readiness issue is our ability to deal with this threat as it continues to develop in the future, whenever that day will come.

I will just summarize my answer to say that low frequency active sonar capability is absolutely critical to our ability to deal with this threat in the future. So it is a significant readiness degrader.

Senator SNOWE. Mr. Cottingham, do you agree entirely with this definition?

Mr. COTTINGHAM. As I said, I think the definition in the administration bill is a good one. We have worked hard on it. I do not think it is the only one. I think when you compare that to the National Research Council or others, certainly there are others out there that we could accomplish and perhaps clarify even more. That is what I was commending your staff here, for trying to work through these. I think the second part of the definition, which is ii, for harassment directed at things is also a very important part of this. Yes, ma'am.

Senator SNOWE. Well, I think the real question is are we elevating the threshold so high that it exposes marine mammals to certain risk. I think that is a real question here. How high should that threshold be or how low it should be in terms of this definition and what is critical to their survival and reproduction? Do we leave it at that? Or is it just minor changes in behavior? I think that is the real issue here in terms of how we clarify what the definition should be and what the effect would be on marine mammals. What are we saying is allowable and inconsequential?

Mr. COTTINGHAM. I think Dr. Lent was getting at that. What the administration has done and what others have been working through is trying to define that as to what disruptions of—is it behavioral patterns? Is it biologically significant activities? These are things that a variety of people are working on. The administration has proffered this definition. The National Academy's was a meaningful disruption of biologically significant activities instead of a disruption of natural behavioral patterns. We are going to have to work very hard to clarify that. That is what I was actually trying to get at in my comment. If the definition were either of these in statute, the report language that you put together explaining exactly what you mean on these things is going to be critical to the interpretation of this so we can avoid the situation that Senator Stevens was talking about. I was not trying to provoke an argument with him.

[Laughter.]

Senator SNOWE. Oh, no. Well, you are depending on Congress to be clarifying? That will be interesting.

[Laughter.]

Mr. COTTINGHAM. If you can clarify what you mean in disrupting natural behaviors, it will help us and the agencies define that. I do not know that it would avoid, but it could potentially avoid some of the conflicts that Senator Stevens was talking about.

Senator SNOWE. Mr. Jones, I gather you are comfortable with this proposed definitional change. Do you think it will make it easier to implement the act and do we still make gains on the conservation side?

Mr. JONES. I do, Madam Chair. The problems that we are talking about today have been less of an issue for the Fish and Wildlife Service for the species that we are responsible for. Nevertheless, we all worked together and we do believe that the definition in the administration bill is one which gets away from one of the problems in the current law where you have to look at the intent of the person involved and focuses instead on what the effects are and then establishes the threshold and the kinds of effects which would be harmful which should be prohibited.

I understand that there are other proposals for other definitions and perhaps there are some that would accomplish the same thing. But we were comfortable that the language that we put forward would work for all marine mammals, whether it is those that are the responsibility of NOAA Fisheries or the species that the Fish and Wildlife Service is responsible for. We do think it would be more clear to the regulated public so they would know what is and is not prohibited and then more clear to us so that our law enforcement agents would know when a situation has reached the point where we should look at a prosecution and we hope would also give the courts the kind of clarity they need so they would not feel that they have to step in to interpret the law.

Senator SNOWE. Thank you.

Senator Lautenberg?

STATEMENT OF HON. FRANK R. LAUTENBERG, U.S. SENATOR FROM NEW JERSEY

Senator LAUTENBERG. Thank you, Madam Chairman. I will spare the Committee the time necessary for an opening statement, but just say that I am concerned that we protect our ability to defend ourselves. Admiral, I did not have quite the hash marks and medals you have on your chest in my 3 years as Corporal in the Army. But I wanted to defend our country as best I could, and sometimes I think it was best if I stayed out of the way.

[Laughter.]

Senator LAUTENBERG. But I was there in Europe during that war.

I do not want to impair the Navy's capacity to be ready, to be prepared. But where would we be if the problems of extinction, endangerment, et cetera continue to deplete the mammal population in the sea? So I think that there are legitimate questions to be asked about this policy. We know that there were many marine mammals formerly on brink of extinction 30 years ago that recovered and they are thriving, but even so, the MMPA has not been

entirely successful. The Marine Mammal Center reports that a number of dead whales and certain other species that are washing ashore in the Pacific Ocean is on the increase, and this trend is very disturbing.

So I just want to mention a couple things that I noted, and that is the administration's interest in exempting the DOD from any marine mammal protection. I had an amendment on the floor of the Senate during the defense authorization bill to prevent the DOD from utilizing a similar exemption from the Endangered Species Act, and it passed with a roll call vote. Even though these were military emplacements, military bases, the endangered species law was there to protect those species and to make sure that we did not interfere with the military's readiness planning or training. So it passed. Believe me, there was plenty of debate about that. The Senate is now on record against these type of exemptions, and unless they truly impair our ability to train and learn and research, I think that we have to protect these species that inhabit our world.

The reality is that the Department of Defense has a relatively poor record, as I see it, for obtaining permits for its takings, another way of saying killing or harming marine mammals. But when it has bothered to seek such permits, as I understand it, the Navy has never been denied a permit. Do you know whether that is true or not, sir?

Admiral MOORE. When we apply for a permit, we have to enter into consultations with our regulators and we frequently in almost every case have to undertake mitigation measures to be able to gain the permit. So, yes, indeed, we have been granted permits, but only after we have undertaken, in many cases, debilitating mitigation measures that have served to—I will use the phrase—dumb down our training and in many instances to the point where we canceled our request for the permit. It was not worth the effort to spend the money to accomplish the training. So yes, we have been given permits, but only after we undertook significant mitigation measures.

Senator LAUTENBERG. Is it fair to say that occasionally the DOD has just gone ahead and done what they felt they had to without obtaining a permit?

Admiral MOORE. No, I would disagree with that, Senator. I will give you an example.

Senator LAUTENBERG. Well, there is a question, Admiral, when the DOD dropped live ordnance into the Gulf of Maine along the migratory path of the endangered right whale, the National Marine Fisheries Service did not even require that DOD obtain a permit. So there is latitude to do these things when our defense interests are so significant that we take some risk with the mammal population.

Admiral MOORE. We have been undertaking for the last 18 months a consultation with the National Marine Fisheries Service on all military operations in the Gulf of Maine. I think the incident you might be referring to with the live ordnance involving a whale—the necropsy on the whale concluded that the whale did not die as a result of impacts of the training activity that was going

on in the Gulf of Maine. In the last 18 months, on all operations in the Gulf of Maine, we are consulting with our regulators.

Senator LAUTENBERG. Dr. Lent, I do not know whether I heard you correctly. Did you suggest as an example that even a glance between a human and a marine mammal might be considered harassment? Is it that trivial that we define these things? I mean, a look between two humans usually gets further negotiation.

[Laughter.]

Senator LAUTENBERG. But in this case could it be so silly as to say that that is harassment?

Dr. LENT. Senator, that is indeed our concern that the current definition is too broad. That is why we want to narrow that down to those activities that really have a significant impact.

Senator LAUTENBERG. Yes, OK, but looking is not a good example of what constitutes harassment.

In terms of the definition of what we are trying to do in amending this statute, this rule is to make it more refined so that it does not prevent people from taking responsible action. I think, Mr. Jones, you said that it might be measuring the intent of a person. But how about separating the intent from negligence? Is that also a concern? We want to make sure that people are not negligent. I know the Navy, especially with the investments we are making in protecting our country and society at large—we have got some pretty rigid rules on how this equipment operates. So if it is negligence, that is usually a punishable offense. If a commander of a ship is negligent in his responsibility—he is not on the bridge at the right time, et cetera. So do you include negligence——

Mr. JONES. Senator, negligence would certainly be a factor in the enforcement of any law. I again have to distinguish because for us in the Fish and Wildlife Service, since court interpretations have not been the issue, and since for the species for which we are responsible, we do not have any significant level of controversy with military training, so for us the issue is more enforceability by law enforcement agents. We believe that the definition in the administration proposal will make it much more clear both for the public and for the agents who are responsible for enforcing the law and not try to read what is in the mind of the individual. Negligence is certainly always an issue. I would agree with you, Senator.

Senator LAUTENBERG. I noted your comment about intent.

Madam Chairman, I would ask that my full statement be included in the record and that I be permitted to just close with a very short comment and that questions in writing be able to be submitted.

Senator SNOWE. Without objection, so ordered.

[The prepared statement of Senator Lautenberg follows:]

PREPARED STATEMENT OF HON. FRANK R. LAUTENBERG,
U.S. SENATOR FROM NEW JERSEY

Madame Chairman, I thank you for convening today's hearing on the Marine Mammal Protection Act (MMPA).

For the most part this Act has been successful in conserving many marine mammal species. Marine mammals that were on the brink of extinction 30 years ago have recovered and are thriving in our oceans.

But the MMPA hasn't been entirely successful. The Marine Mammal Center reports that the number of dead gray whales washing ashore along the North Pacific coast is increasing, with 269 reported along North America and Mexico in 1999.

In 2000, more dead gray whales washed ashore near the San Francisco Bay than had in previous years and various whale and sea lion species are in decline. This is trend is very disturbing.

I have many concerns, with the implementation and enforcement of the MMPA, and with the Administration's proposal for changing it.

My first concern is that the Administration is proposing to exempt the Department of Defense (DOD) from many marine mammal protections.

I also find this request perplexing. The Department of Defense has a record of failing to obtain permits for its "takings." And when it has bothered to seek such permits, DOD has never been denied.

No DOD training or readiness exercise has ever been prevented because the National Marine Fisheries Service or a Fish and Wildlife Service refused to issue a permit for a marine mammal "taking."

The National Marine Fisheries Service didn't even require the Department of Defense to obtain a permit when it dropped live ordinance into the Gulf of Maine—along the migratory path of the Right Whale.

And I'll tell you something, *the American people strongly oppose these exemptions.*

A Zogby poll released just a few weeks ago—just as our war in Iraq was ending—reported the same results as an identical poll taken in 2002. More than four out of five voters—84 percent—say that the government should have to follow the same environmental laws as everyone else.

Our society has never sanctioned a double standard—and it should not start doing so now.

The second concern I have is that the Administration would also limit the oversight role of Congress. That strikes me as a bit mistake.

As a matter of fact, I am considering asking the General Accounting Office to review the government's implementation and enforcement of the ban on "takes" under the MMPA, and whether the implementation and enforcement have been consistent, balanced, and afforded the protections originally envisioned for this Act.

Why, for instance, have only six "Take Reduction Teams" been established in 9 years? Not only has NMFS and FSW failed to adequately assess the health of certain marine species, but from what I've read, the entire permitting process is broken.

It's too bureaucratic, it's too slow and it's too inconsistent. One of the tenets of our society is the even-handed application of law. I don't see that happening here.

My view is that rather than water down the Marine Mammal Protection Act—if you'll excuse the pun Madam Chair—we must strengthen it.

I'd like to hear from the Administration's witnesses on what justification they can offer as to why we should reduce our current level of protection for marine mammals.

I want to understand, are we failing to properly enforce the provisions of the Marine Mammal Protection Act? How many marine mammals are being caught and killed each year in commercial fisheries? Which fisheries are most impacted?

There is also increasing concern about the role of ocean noise, including the new low frequency sonar technology used by the Navy. We must learn much more about the impacts of this sonar on marine mammals.

The definition of harassment has also been questioned. This definition is fundamental to the Marine Mammal Protection Act and must be clear, consistent and adequately protective.

Yet, the Administration's proposed definition of harassment appears to "raise the bar" so high that "takings" permits would not be sought until the damage has already been done.

That is not the way to protect marine mammals.

Researchers are becoming increasingly concerned about the effects of shipping noise on marine mammals. I would like to hear if the Administration has any proposals that will address this issue.

I look forward to hearing from our witnesses. I know they have sound advice to offer on these and other topics.

Thank you, Madame Chairman.

Senator LAUTENBERG. I would say that we live in an age—and I do not want to lecture or preach here, but the reality is that we cannot live without defending ourselves. We have seen that. I for one am supportive of investing in our defense and making sure

that our service people are treated fairly, that they are not overextended in terms of time away from home, job, family, you name it, to make sure that we are amply populated with the people that we need to do the job. But I also am one of those who believes that the environment that nature gave us is one that has to be protected, and the ecology of that environment has to be seriously reviewed to ensure we do not damage it.

I was up in Alaska right after the grounding of the Exxon Valdez. I was then Chairman of the Subcommittee on Coast Guard Appropriations. I got up there in a hurry and it was one of the most beautiful places I had ever seen. I had not spent any time in Alaska. I had a chance to meet some of the native population. But I saw what happened to that population of fish and marine mammals and saw people from our Fish and Wildlife Service and others caressing and brushing off the oil and the slime that resulted from that spill to try and save those. I do not think that population has ever been fully restored.

I know that Exxon never paid the punitive damages that were assessed. I think it started out at more than $5 billion, and they keep on deferring. They have not yet paid a dime and that is a long time ago.

So I think without being too much of a romantic here, I would like to believe that we can defend ourselves physically and—forgive the reference—spiritually and morally as well as we look at those animals and the wildlife and the quality of the air and the water, protecting that at the same time as we protect ourselves from terrorists or those who would do us harm. Admiral, I know you believe that because otherwise you would not be in the position that you are in.

So thank you, Madam Chairman. I appreciate it.

Senator SNOWE. Thank you, Senator Lautenberg, for your comments and for your participation here today.

Clearly, it is a vexing issue. In thinking about how we are going to approach this and potentially changing definitions, I also think that it has to be commensurate with our investments in research. I think it is very troubling that we have reached this point and we really have no definitive data on which to base these decisions. We are talking about a 5-year reauthorization. Obviously, this has not been reauthorized since 1999 for a variety of reasons. Nevertheless, here we are today thinking about reauthorization, and changing the definitions for better or for worse. It is hard to say. We recognize that there is a problem. Obviously, we do not want to impede our readiness in any way and make the permitting process so arduous that it is virtually impossible to participate without anticipating a court action.

But the fact is we do not have any new data, and that is troubling to me. Does anybody have any definitive data, for example, on the low frequency active sonar? Is there anything definitive with respect to that? In looking at the National Research Council's recommendations which are based on the progress since 1994, I find it pretty disheartening. There really is virtually negligible research that has been done which makes it difficult for us to make sure that we are pursuing the right approach. This is something that we

have to take into consideration as we approach the issue of changing definitions.

Now, what activities will be exempted from permitting under these new definitions? Will there be any? What activities would be affected or not affected?

Dr. LENT. Thank you, Madam Chair. I think the important thing is that the permitting process, particularly for the scientific research, should be as easy or in fact easier for that scientific community. In fact, more of the science type of activities will fall into the Level B harassment so they can do their work with general authorization.

I want to note as well that we have a number of studies underway on acoustic effects on marine mammals. You are correct that we do not have the definitive word on it, but the agency remains confident that we had sufficient information to issue the final rule and the permit associated with SURTASS and we are defending that case in court.

Senator SNOWE. Would the permitting process not be much easier if we had more scientific research on which to make decisions?

Dr. LENT. Senator, it is always better to have more research.

Senator SNOWE. Well, we do not really have any. You could not be arguing that we have research that is substantial in this whole area.

Dr. LENT. Where we do not have sufficient information, we do have to put extra safeguards in place, such as twice the distance that we feel is safe. Yes, with additional scientific information, we can do a better job on the permitting process. We will have that information on hand. We do not have to do as much studies and providing background information before we can issue the permit.

Admiral MOORE. Senator, if I could comment.

Senator SNOWE. Admiral.

Admiral MOORE. We made a significant investment in research specific to the low frequency active sonar. We have a larger body of research ongoing in marine mammals at large. But for low frequency active sonar, because we knew it would be controversial and to prepare our environmental impact statement, we did this significant body of research. We asked outsiders to do the research, Cornell and Woods Hole. You would have to ask the individuals who conducted the research, but reports have been made to me that they were inclined in the beginning to believe that low frequency active sonar would be injurious. At the end of the research, they concluded objectively that it would not.

We sent our environmental impact statement forward. We were informed by everyone who reviewed it that it was the highest quality environmental impact statement they had ever observed. I think our data, our research, although I would agree with you we need to continue, as we are in the Navy, but it is fairly significant and it is fairly compelling research that underpins this new definition of harassment.

Of course, you mentioned what activities will be exempted. We will not be exempted from any activities. We do not seek to be exempted. We seek this change in definition of harassment such that if in our consultations with our regulators, it was concluded that the activity would not constitute harassment, then we could con-

duct the activity without a permit. That does not mean that we will not consult. That does not mean that we are operating outside MMPA. If we had decided to conduct operations that were considered to be harassment, then obviously we would file for a permit if we felt compelled to continue that operation for some sort of national security reason. But we do not seek in any way to be exempted.

Senator SNOWE. Would the Navy be seeking a permit for low frequency active sonar under this new definition?

Admiral MOORE. Yes, we would.

Senator SNOWE. Would you be required to?

Admiral MOORE. I think that the answer is probably yes. My personal view is that there are operations with the low frequency active sonar, based on the research that we have done, that would clearly not constitute harassment or we would have enough information to conclude in consultation that in no way would be conducting harassment and therefore would not need a permit. But my sense is, since we have already been down this road, we have already been granted a permit, we already have a large body of information, I do not see us routinely not asking for a permit.

Senator SNOWE. Dr. Lent, do you have examples of activities that would not require a permit under this new definition?

Dr. LENT. As the Admiral pointed out, certain activities under the new definition where we know it is not going to significantly impact their behavior. I will have to get back to you on specific examples.

Senator SNOWE. I would appreciate it. I think the Committee would as well as we consider these potential changes.

Yes, Mr. Cottingham?

Mr. COTTINGHAM. Madam Chair, thank you. We have focused a lot of this discussion on the definition of harassment. Before the National Marine Fisheries Service can issue an incidental take authorization, which is part of what the Navy did—they were not going out to take marine mammals to harass them intentionally; it was part of an unintentional thing—there are some other criteria that also apply. One, the National Marine Fisheries Service must make a negligible impact finding so that even if the animals are being harassed, is it having a negligible impact on that stock. There are requirements in the statute about limited geographic areas and small numbers. All of these portions were things that were challenged in the litigation.

I was actually at the National Marine Fisheries Service when we issued that permit, so I was part of that process before I changed jobs. And we knew about all of these challenges. We and the Navy were well aware that these were criteria in the statute that we would have to meet, and the agency thought they had done a good job meeting the limited geographic area, the small numbers, and the negligible impact. All of those standards have been challenged.

And then you get into the whole thing Dr. Lent referred to a minute ago. Before they can issue a permit, they have to do an analysis under the National Environmental Policy Act and they have to do a consultation under the Endangered Species Act.

So just changing this definition of harassment is not simply going to solve all of the Navy's problems or the National Marine

Fisheries Service's problems. There are a number of statutes, as all of these come together, that the agencies are charged with implementing all of them, and it is how they all fit together at that apex that the agencies are struggling with.

Senator SNOWE. I appreciate that. That obviously is another issue in terms of whether or not there are small numbers. I have proposed a change that says it has the smallest negligible impact on the population, but I noticed the administration has not made any proposal on this issue. Is there a reason?

Dr. LENT. Not that I know of. I will have to get back to you if there is a reason.

Senator may I add a quick P.S. to this discussion? The most important thing to point out here is that we have been working very closely with the Navy. It has been pretty much a new era over the past couple of years. We meet regularly. We have work teams and contact points. I think the important thing is we are communicating back and forth, working on this bill, working on specific activities, and doing a much better job of collaboration.

Senator SNOWE. Mr. Cottingham?

Mr. COTTINGHAM. Senator, let me add to that. When the administration was developing its bill, it predated some of this litigation, so it did not address the small numbers or limited geographic areas. I believe that the Defense Department readiness bill—that is pretty close to the right name of it. The Defense Department bill—you can address that.

Admiral MOORE. It is the Readiness Range Preservation Initiative is what we have gone forward with, and it does address all of those issues currently in its current language.

Senator SNOWE. Thank you. I appreciate your participation here this morning, and hopefully we can begin to resolve some of these issues as we move forward with the reauthorization. We will be following up on some of the issues that have been raised now and in the future and with the subsequent panel that will be providing testimony here this morning. I appreciate your taking the time to be here and thank you.

I will now call forward the second panel: Rear Admiral Richard West, Ms. Nina Young, Dr. Peter Tyack, and Mr. Charles Johnson.

Admiral West, let us begin with you. I will include your full statements in the record. So I would ask you to summarize your testimony within 5 minutes. Thank you.

STATEMENT OF RADM RICHARD D. WEST, USN, RETIRED; PRESIDENT, CONSORTIUM FOR OCEANOGRAPHIC RESEARCH AND EDUCATION

Admiral WEST. Thank you, Madam Chair. I am Rear Admiral Dick West, President of the Consortium for Oceanographic Research and Education, commonly known as CORE. Thank you for the opportunity to provide our views on the Marine Mammal Protection Act as it relates to ocean science.

Today the ocean science community faces a major challenge, the potential of increased litigation promulgated ostensibly under the guidelines of MMPA and other environmental laws. Some of these cases have blocked important acoustic research projects and threatened use of sound at sea.

I would like to cover four points.

First, CORE supports changes to the MMPA recommended by the National Research Council to clarify and strengthen the role and conduct of science related to marine mammals.

Second, an expanded research program is needed to reduce the current high levels of scientific uncertainty concerning ocean noise levels and their effects on marine mammals.

Third, a timely and predictable administrative process must be established for marine scientists to obtain MMPA permits and authorizations.

Fourth, we must invest in outreach and education programs to address the current confusion regarding potential effects of sound on marine mammal populations.

At-sea research is the primary mission for our member institutions. The ocean is large and unfortunately opaque to conventional observing techniques used in the atmosphere. Light and radio waves travel only tens of meters before being scattered and absorbed in the ocean's saltwater.

Fortunately, the ocean is largely transparent to sound. Oceanographers depend on acoustic techniques to assess fish stocks, map the sea floor, communicate with underwater instrumentation, profile ocean currents, image the interior of the earth, and measure large-scale ocean temperature variability potentially associated with climate change. The same is true of shippers, oil and gas developers, fishermen, and our military.

Unfortunately, MMPA's ambiguous language, interacting with other statutes, has led to successful legal challenges for two scientific expeditions and the Federal agencies supporting them. The Government's inability to sustain its interpretation of the law in court is giving rise to a potential for major delays and significantly increased costs for researchers, sometimes at more expense than the cost of the experiment itself. It is also scaring off young researchers from conducting much-needed ocean research and beginning our next generation of ocean scientists.

We would like to propose a number of steps, both legislative and administrative, that could be taken to address the current situation.

The NRC has convened three panels in 1994, 2000, and 2003, providing useful guidance on how the MMPA could be modified to ensure necessary uses of sound at sea while maintaining protections for marine mammals.

One recommendation is to change the MMPA definition of the term "harassment." Recognizing that it does not make sense to regulate minor changes in behavior having no adverse impact, all three NRC committees recommend that the definition of Level B harassment should be modified to focus on biologically significant disruption of behavior that is critical to survival and reproduction. CORE supports this modification.

While the administration's proposed changes to the MMPA are similar to those proposed by the NRC, CORE has two concerns with their proposal. First, the new language added a new criterion for acts directed toward a specific individual, group, or stock of marine mammals, increasing the MMPA's complexity. In addition, the terms "abandoned or significantly altered" in the proposed revi-

sions are not scientifically meaningful, leading to further ambiguity and confusion.

Another key NRC recommendation is to remove the term "small numbers" from the MMPA section dealing with the authorization of incidental taking. Under current law, species or stock must also be negligibly impacted by the authorized activity, setting up a dual criteria. CORE supports this NRC clarification.

We are roughly familiar with the effect of varying sound frequency only on approximately 11 of the more than 70 identified marine mammal species in our oceans. For the others, we have insufficient data to provide firm answers on the levels and characteristics of the sound that may or may not cause biological harm. Increasing our scientific understanding would assist in clarifying and streamlining the MMPA permit and authorization process, as well as allowing researchers to include effective mitigation measures in their experimental plans.

We believe that an enhanced, independent, peer-reviewed research program on the effects of underwater sound on marine mammals is essential. It should be broadly based with participation from all the affected agencies. The National Oceanographic Partnership Program offers a potential mechanism to bring these entities together in a process that provides both coordination and scientific independence.

The complex and lengthy permitting process under the MMPA has become a major impediment to conducting ocean research hindering even the science to better understand effects of human-generated sound on marine mammals. Scientists now face lengthy delays and significant additional expense that threaten their ability to conduct research at sea. The ocean science community is urgently in need of a timely and predictable permitting process.

CORE has initiated an open communication process with the Federal funding agencies and with regulatory and oversight responsibilities like NOAA Fisheries and the Marine Mammal Commission. We recognize that the administrative changes may require agencies to make investments in both time and dollars, but we are optimistic that with the support of this Committee and by working together, substantial progress can be made on this national problem.

An alarming discovery for this current marine issue is the widespread public confusion and lack of knowledge regarding the effects on marine mammals. Many public reports do not accurately explain the link between marine sonar use and whale and dolphin strandings. The result is the misconception that any sound level in our oceans is harmful. It is not. The marine science community must develop a public education outreach program to better inform the press, environmental organizations and this Nation's general population.

In conclusion, Madam Chair, this is no longer a single agency, a single institution, or a single science at sea problem. It is a national problem that needs a comprehensive national plan. The national plan is central to the preservation of our oceans and those who live in it.

Thank you, and I will stand by for your questions.

[The prepared statement of Mr. West follows:]

PREPARED STATEMENT OF RADM RICHARD D. WEST, USN, RETIRED, PRESIDENT, CONSORTIUM FOR OCEANOGRAPHIC RESEARCH AND EDUCATION

Madame Chair and distinguished members of the Committee, I am Rear Admiral Dick West, President of the Consortium for Oceanographic Research and Education or CORE. Thank you for the opportunity to provide our views on the Marine Mammal Protection Act (MMPA) reauthorization as it relates to ocean science.

As you may know, CORE is composed of 73 members, representing our Nation's top oceanographic institutions, laboratories and aquaria. Since 1994, CORE has established a leading role in ocean research, education issues and the development of marine science policy. CORE provides the ocean science community with a coordinated voice for promoting and discussing research, education and policy issues with the government and the public.

For almost thirty years, the primary role for marine scientists with respect to marine mammals has been to expand our understanding of these ocean animals and their role in the marine ecosystem. Scientists from all areas of oceanography conduct their activities in compliance with the MMPA, applying for and receiving permits when necessary. In addition, scientists regularly volunteer their time and expertise to conservation, serving on advisory panels for the Marine Mammal Commission and the National Marine Fisheries Service (NOAA Fisheries). Now, however, the ocean science community faces a major challenge—the increasing tendency toward litigation ostensibly pursued under the guidelines of the MMPA and other environmental laws. Some of these cases have blocked important acoustic research projects and threaten the use of sound in the sea for oceanographic work in general. The present situation is disruptive, very expensive, and has the potential to block science programs, discouraging student oceanographers and undermining the credibility of and support for critical ocean research.

In my testimony, today, I would like to cover four major points. First, CORE supports changes to the MMPA recommended by the National Research Council (NRC) to clarify and strengthen the role and conduct of science related to marine mammals. Second, an expanded research program is needed to reduce the current high levels of scientific uncertainty concerning ocean noise levels and their effects on marine mammals. Third, a timely and predictable administrative process must be established for marine scientists to obtain MMPA permits and authorizations and ensure compliance with applicable legal requirements. Fourth, we must invest in outreach and education to address the current public confusion regarding the potential effects of sound on marine mammal populations.

Ocean Noise and Marine Mammals

The conduct of at-sea research is central to the mission and way of life for most of our member institutions. The ocean is, in large part, opaque to conventional observing techniques used for the atmosphere. Electromagnetic radiation, such as light and radio waves, travel only a few hundred meters at most before being absorbed. For this reason, conventional observing practices using radar and other EM methods are largely ineffective for seeing into and through the deep ocean.

Fortunately, the ocean is largely transparent to sound. It is no accident that whales, dolphins, and seals use sound to communicate, navigate and sense their environment. Oceanographers similarly depend on acoustic techniques to assess fish stocks, map the sea floor, image the interior of the Earth, communicate with underwater instrumentation, profile ocean currents and measure large-scale ocean temperature variability that is potentially associated with climate change. The same is true of shippers, oil and gas developers, fishermen, and our military. All use methods that generate sound in the ocean. In fact, the most recent NRC report estimates that noise levels from human-related activities throughout the oceans will double every ten years, largely due to shipping, if current economic and growth trends continue.

It is appropriate to be concerned about the effect of sound on marine mammals, and the ocean research community shares the apprehension of many other groups. Limiting our ability to address the problem, however, is the fact that we are only roughly familiar with the effect of varying sound frequencies on eleven of the more than 70 identified marine mammal species. For the others, we have insufficient data to provide firm answers on the levels and characteristics of sound that might cause harm.

The MMPA, of course, prohibits any taking, including harassment, of marine mammals without a scientific permit, exemption or authorization. Under the existing law, two levels of harassment are defined and the definition of Level B harassment is those actions that have "the potential to disturb a marine mammal or marine mammal stock in the wild by causing disruption of behavioral patterns, includ-

ing, but not limited to migration, breathing, nursing, breeding feeding, or sheltering." The NRC notes that this language has been interpreted very conservatively at times to mean that any detectable change in behavior constitutes harassment. In addition, this ambiguous language may trigger questions about the need for permit applicants to meet additional requirements under other environmental statues. The statutory interplay has led to successful legal challenges of two scientific expeditions and the Federal agencies supporting them. The government's inability to sustain its less stringent and more practical interpretation of the law in court is giving rise to the potential for major delays and significantly increased costs for researchers.

Unfortunately, as more work is done to understand the varying effect of sound on marine mammals, the already litigious climate could grow worse. Scientists currently are developing more sophisticated methods of detecting changes in behavior in marine mammals in the field, such as telemetry, that allow them to document minor and brief reactions at lower and lower levels of human-made sound. As these observation techniques improve, and as more research is conducted on the effects of sound on marine mammals, we will be better positioned to observe even minor changes and this may inadvertently provide the basis for preventing researchers from carrying out the needed work. The difficulty, expense, and delay in getting the associated permits could grow and the potential for litigation increase. While marine scientists share as a goal the need to understand and through that understanding, protect the marine mammals, they are becoming increasingly concerned that the MMPA has become an impediment to such research and could actually be contributing to the decline of these animals.

So how do we, as a nation, balance the need to conduct research in critical areas like global climate change, marine resource assessment and earthquake hazards and forecasting with the need to protect marine mammals? We would like to propose a number of steps, both legislative and administrative, that could be taken to address the current situation. While there is no "quick fix," CORE is confident that, with your assistance and in partnership with the Federal ocean agencies, substantial progress can be achieved.

Amending the MMPA Harassment Definition and Incidental Take Authorizations

Responding to growing public awareness and concern over the impacts of ocean noise on marine mammals, the NRC has convened three expert panels over the last ten years to examine related issues. Their recommendations are contained in the following reports:

> National Research Council (NRC). 1994. *Low-Frequency Sound and Marine Mammals: Current Knowledge and Research Needs.* National Academy Press, Washington, D.C.
>
> National Research Council (NRC). 2000. *Marine Mammals and Low-Frequency Sound: Progress Since 1994.* National Academy Press, Washington, D.C.
>
> National Research Council (NRC). 2003. *Ocean Noise and Marine Mammals.* National Academy Press, Washington, D.C.

Their recommendations provide useful guidance on how the MMPA could be modified to ensure necessary uses of sound in the sea, while maintaining protections for marine mammals. They also provide extensive recommendations for future research on ocean noise and marine mammals.

One of the recommendations is to change the MMPA definition of the term "harassment." The NRC (2000) concludes that it "does not make sense to regulate minor changes in behavior having no adverse impact; rather, regulations must focus on significant disruption of behaviors critical to survival and reproduction." The NRC goes on to suggest that Level B harassment be redefined as an action with "the potential to disturb a marine mammal or marine mammal stock in the wild by causing meaningful disruption of biologically significant activities, including, but not limited to, migration, breeding, care of young, predator avoidance or defense, and feeding." All three NRC committees were in agreement that the definition of Level B harassment should be modified to focus on *biologically significant* disruption of behavior that is critical to survival and reproduction. CORE supports such a modification.

The Administration bill to reauthorize the MMPA also proposes to amend the definition of harassment. While the bill's changes are similar to those proposed by the NRC, CORE has two concerns with the Administration proposal as it currently is drafted. First, the Administration proposal actually would increase the complexity of the harassment definition, adding a separate new criterion for acts "directed toward a specific individual, group, or stock of marine mammals . . ." Given the MMPA's already overwhelming intricacy, this substantial addition to one of the

law's central definitions is not likely to simplify its implementation, particularly as it applies to scientific research. In addition, the terms "abandoned or significantly altered" in the proposed revisions are not scientifically meaningful, leading to further ambiguity and confusion that would likely be resolved in varying and unpredictable ways in different courts around the country. These issues will be discussed in greater detail in Dr. Peter Tyack's testimony.

Another key NRC recommendation is to remove the term, "small numbers" from MMPA section 101 provisions that deal with the authorization of incidental takings. CORE supports this clarification. Under current law, requests for an incidental taking or harassment authorization apply to "small numbers" of marine mammals of a species or stock of which the Secretary of Commerce must find will be negligibly impacted by the authorized activity.

Until now, Federal managers essentially have interpreted this as a single requirement in the authorization process for incidental takes or harassment of marine mammals. However, recent court decisions have called that interpretation into question and if such a change is not made, it is conceivable there would be two distinct and separate tests for determining takes—small numbers first, and if that test were met, negligible impact from the take of small numbers. The NRC-suggested change would prevent the denial of research permits that might insignificantly harass large numbers of animals and would leave the 'negligible impact' test intact.

Scientific Research on Marine Mammals and Sound

While the MMPA changes discussed above are important, they are not sufficient in and of themselves to address the issues now facing the ocean science community with respect to marine mammals. Perhaps the greatest challenge in addressing this issue is our current, very limited scientific understanding. One point on which scientist, managers, environmentalists and marine operators all agree is the critical need to improve what we know about the effects of sound in the ocean on the behavior and health of marine mammals. Different sound frequencies and intensities have different effects on various species, and those effects change with location in the water column and characteristics of the sea floor. It is clear that increasing our scientific understanding would clarify and narrow the need to obtain permits and authorizations under the precautionary MMPA, as well as making it easier for researchers to include effective mitigation measures in their experimental plans. A robust marine mammal research program is absolutely essential to protecting marine mammals and conducting other essential research in our oceans.

In its reports, the NRC makes it clear that the current understanding of the effects of underwater sound on marine mammals needs to be improved. Funding and scientific leadership in this area to date has come from the United States Navy. This is particularly interesting, given the current controversy over the use of low frequency sonar. Over the years, the Navy has supported the efforts of pioneers like Sam Ridgway and Ken Norris to expand the boundaries of our knowledge about these unique animals. Today, the Office of Naval Research maintains a substantial research program on underwater sound and marine mammals.

We believe that an enhanced research program on the effects of underwater sound on marine mammals is needed. This program needs to include, but should not be limited to, work on——

- Global animal distribution and abundance
- Hearing capabilities of rare and large marine mammals
- Global ocean sound budget
- Relationship of human activities to noise
- Responses of marine animals to sounds
- Detection of marine mammals
- Monitoring of ocean noise over the long term

It is important that this program be independent and peer-reviewed. It should be broadly based, with participation from other funding agencies in addition to the Office of Naval Research, including the National Science Foundation, the National Oceanic and Atmospheric Administration (NOAA), and the Minerals Management Service. Support from private industry and non-governmental organizations for research managed in such a manner is also quite likely. The National Oceanographic Partnership Program offers a potential mechanism to bring these entities together in a process that provides both needed coordination and scientific independence. As you undertake the reauthorization process for the MMPA, we request that you consider authorization of such a program.

Establishing Timely and Less Burdensome Permitting and Regulatory Guidance

The complex and lengthy permitting process under the MMPA has become a major impediment to conducting ocean research, hindering even the science to understand better the effect of human-generated sound on marine mammals. This problem has been exacerbated in recent months by legal decisions that could require extensive analyses under the National Environmental Policy Act (NEPA) for any research that may affect marine mammals, even in situations where there is widespread agreement among Federal managers and scientists that the research activity has no potential to cause harm. Scientists now face lengthy delays and significant additional expense that threaten their ability to conduct research. In addition, the situation is placing new burdens on the already stretched resources of the NOAA Fisheries. The ocean science community is urgently in need of a timely and predictable permitting or authorization process that is not unnecessarily burdensome and provides them with assurances that research will proceed in compliance with all applicable laws, when the permit is issued.

In recent months, CORE has initiated an open communication process with the Federal funding agencies and those with regulatory and oversight responsibilities like NOAA Fisheries and the Marine Mammal Commission. While we are still in the process of assessing options, all the participants in this dialog recognize the legitimate concerns of the ocean research community and have expressed a clear willingness to work with us in developing a constructive solution. We acknowledge that administrative changes may require agencies to make substantial investments in both time and dollars, but are optimistic that by working together substantial progress can be made.

While the need for legislative changes will become clearer as we work our way through this process, we anticipate that other changes to the MMPA may be necessary to facilitate establishment of a more effective system for permitting or authorizing scientific research that could impact marine mammals. One option may be to broaden the relatively streamlined permit procedure for scientific research on or directly benefiting marine mammals under section 104 of the MMPA. This procedure is currently available only for marine mammal research, and any other scientific research affecting marine mammals must use procedures for an incidental take or other type of authorization. These procedures are time consuming and burdensome at best and the NRC (1994) has recommended that the definition of research for which scientific permits can be issued be broadened to include a wider range of research activities.

Although such a change could be an important step toward a more predictable process for ocean research, the existing procedure for obtaining scientific research permits still is enormously time-consuming and expensive for individual researchers. Today's experience is that the costs of permitting and associated legal fees can become as expensive as the research investment itself, leading inevitably to less ocean research and a slowdown in scientific advancement and the benefits that come from it. In addition, the chilling effect of this overly-burdensome process is discouraging new researchers from pursuing marine science, potentially weakening our human resource capabilities in a area that has great potential for new discoveries and large information deficits. CORE requests that the Committee look at ways to further simplify and streamline the process and address the concern of the NRC (1994) that "the lengthy and unpredictable duration of this process can create serious difficulties for research."

Another goal of any legislative or administrative reforms should be to integrate the requirements of NEPA and the Endangered Species Act to ensure that once the researcher goes through the process, he or she is in compliance with all applicable laws. As Dr. Tyack can attest, this problem has become much worse in the past year when procedural errors under NEPA led a judge to halt important conservation biology research. In this case, even though Federal regulators and scientific experts agreed that this experiment was harmless and was urgently needed to protect whales, the judge ruled that the environmental analysis was not adequate. If even harmless projects require extensive environmental assessments or environmental impact statements, the regulatory burden for marine mammal research will continue to impede acquisition of information critically needed to protect marine mammals. This is particularly troublesome since some of these projects are needed to assess or develop mitigation measures for activities that currently are unregulated, such as commercial shipping.

Oceanographers and other marine operators use underwater sound routinely for a wide variety of important purposes. However, the MMPA does not provide guidance to govern its application to instrumentation that is in widespread and on-going use, nor does it include a mechanism for allowing for such on-going uses other than

through exemptions that must be applied for on a case-by-case basis. CORE requests agency guidance or a legislative mechanism to clarify how the MMPA applies to a wide variety of routine sound sources. Such a clarification should provide user groups with clear direction that differentiates conditions of use that trigger MMPA requirements and those for which no permit or authorization would be required.

Public Outreach and Education

One major contributor to the current controversy is public confusion regarding the effects of sound on marine mammal populations. Many of the stories in press reports do not accurately explain the link between marine sonar use and whale and dolphin strandings. The result is the misconception that any sound level is harmful—flying in the face of scientific understanding.

The marine science community must develop a public education and outreach program to provide better information to the press, environmental organizations, and the general public about the critical need to maintain basic ocean research utilizing acoustic tools. We ask your support to achieve this goal.

Conclusion

Madam Chair and members of the Committee, we sincerely appreciate your attention to this difficult and complex issue. The application of the MMPA in the increasingly complex and crowded ocean environment is fraught with difficult, and sometimes emotional, issues. However, I am convinced that working with the Congress, our Federal partners and the other ocean organizations we can make real progress to create a permitting environment that is more predictable and efficient, while continuing to protect marine mammals.

Thank you, and I look forward to your questions.

Senator SNOWE. Thank you.

Dr. Young.

STATEMENT OF NINA M. YOUNG, DIRECTOR, MARINE WILDLIFE CONSERVATION, THE OCEAN CONSERVANCY; ON BEHALF OF THE FOLLOWING ORGANIZATIONS: AMERICAN CETACEAN SOCIETY, AMERICAN SOCIETY FOR THE PREVENTION OF CRUELTY TO ANIMALS, ANIMAL PROTECTION INSTITUTE, CETACEAN SOCIETY INTERNATIONAL, DEFENDERS OF WILDLIFE, FRIENDS OF THE SEA OTTER, HUMANE SOCIETY OF THE UNITED STATES IN DEFENSE OF ANIMALS, INTERNATIONAL FUND FOR ANIMAL WELFARE, INTERNATIONAL MARINE MAMMAL PROJECT OF EARTH ISLAND INSTITUTE, NATIONAL ENVIRONMENTAL TRUST, NATURAL RESOURCES DEFENSE COUNCIL, OCEAN FUTURES SOCIETY, OCEANA, POLAR BEARS INTERNATIONAL, SEA OTTER DEFENSE INITIATIVE, SIERRA CLUB, THE FUND FOR ANIMALS, THE MARINE MAMMAL CENTER, THE WHALE CENTER OF NEW ENGLAND, WHALE AND DOLPHIN CONSERVATION SOCIETY

Dr. YOUNG. Thank you, Madam Chair, for the opportunity to testify before you today. My name is Nina Young and I am the Director of Marine Wildlife Conservation for The Ocean Conservancy, and my testimony today is on behalf of 22 organizations that comprise the Marine Mammal Protection Coalition.

The MMPA is our Nation's leading instrument for the conservation and recovery of marine mammals, and as you noted, Madam Chair, the threats facing these marine mammals are becoming more complex. During the last reauthorization, Congress amended the act, bringing it closer to achieving its goal of recovering marine mammal populations.

In our view, the problems stem not from the act itself, but from the agency's failure to fully implement and effectively fund this particular program. The program has suffered from a chronic lack of resources that has hindered scientific research that is needed to

implement many of the permit processes that we have spoken about thus far this morning.

In our written testimony, we provide a section-by-section comment on the administration bill and offer additional recommendations that we would believe would improve the act. We believe that any MMPA reauthorization bill must safeguard the zero mortality rate goal, strengthen the penalty enforcement provisions to deter violations, make surgical improvements to the scientific permitting process, devise and implement a research plan to guide the safe testing of non-lethal deterrent devices, include non-commercial fishing gear that has the potential to take marine mammals, provide for observer fees to increase observer coverage, expand the authority to allow the Secretary to authorize a take reduction team for fishery interactions involving prey-related issues, and increase the authorized appropriation levels overall, especially for sections 117, 118, and title IV.

The Subcommittee should also consider amendments that would authorize the Marine Mammal Commission to identify and assess the magnitude of emerging and existing threats to marine mammals and to provide a research plan to fill and identify these data gaps, provide recommendations for regulatory or statutory changes to the MMPA that would mitigate such threats.

The Ocean Conservancy is opposed to the administration's definition of harassment and the Department of Defense's proposals to modify the MMPA's definition of harassment, amend its incidental take authorization process, and create a separate broad categorical exemption for its activities. The proposed changes would severely undermine the precautionary nature of the act, remove key conservation elements, and significantly raise the threshold that would trigger any agency's obligation to secure an authorization to conduct activities that have the potential harm marine mammals. As a result, many activities would either be exempt outright or could evade the act's requirements.

The coalition has provided to the Committee its preferred alternative to the harassment definition that is more along the lines of the NRC definition. We believe the small numbers and geographical region provisions should be retained and the definition of these terms further refined by Congress or the agency.

The record does not support the need for the amendments that the Department of Defense is seeking. It has applied for over 20 incidental take authorizations or harassment authorizations and has never been denied such authorizations. In our opinion, the Department of Defense has failed to demonstrate that irreconcilable conflicts exist within the MMPA to merit such comprehensive amendments. We believe that advance planning, clear guidance, and a more formal consultation process with the regulatory agency would be a more effective remedy.

Recently the scientific community has raised the concerns that the current regulatory process discourages research and has in some cases stopped research altogether. The two cases most cited include the National Science Foundation use of seismic air guns to undertake geological research and, as I am sure you will hear from Dr. Tyack, a case involving a series of permits issued by the National Marine Fisheries Service for his scientific research.

In the case of the NSF research, NSF never applied for an incidental take permit under the MMPA, nor did it complete an environmental assessment or environmental impact statement under the National Environmental Policy Act. And Dr. Tyack's permits were challenged under NEPA for failure to perform the required analysis of environmental impact, not the MMPA.

Although we understand the adverse reactions that these decisions have engendered within the scientific community, we are ourselves not opposed to scientific research but recognize the need for it. The problem has less to do with the definition of harassment and more to do with problems within the permitting and regulatory process and compliance with other statutes. Again, we believe that this points up the need for improvements within the permitting and regulatory process, guidance to scientists, as you heard from the Admiral, outreach to the environmental community, and better compliance with NEPA through the development of programmatic environmental impact statements.

The Ocean Conservancy believes that the Marine Mammal Protection Act has made significant progress in conserving marine mammals. We support a reauthorization process during which all stakeholders can work together to develop creative and collaborative approaches to demonstrated problems. We look forward to working with the Subcommittee to devise constructive alternative approaches that will result in a progressive reauthorization bill for this keystone law.

I will be happy to answer any questions. Thank you.

[The prepared statement of Dr. Young follows:]

PREPARED STATEMENT OF NINA M. YOUNG, DIRECTOR, MARINE WILDLIFE CONSERVATION, THE OCEAN CONSERVANCY; ON BEHALF OF THE FOLLOWING ORGANIZATIONS: AMERICAN CETACEAN SOCIETY, AMERICAN SOCIETY FOR THE PREVENTION OF CRUELTY TO ANIMALS, ANIMAL PROTECTION INSTITUTE, CETACEAN SOCIETY INTERNATIONAL, DEFENDERS OF WILDLIFE, FRIENDS OF THE SEA OTTER, HUMANE SOCIETY OF THE UNITED STATES IN DEFENSE OF ANIMALS, INTERNATIONAL FUND FOR ANIMAL WELFARE, INTERNATIONAL MARINE MAMMAL PROJECT OF EARTH ISLAND INSTITUTE, NATIONAL ENVIRONMENTAL TRUST, NATURAL RESOURCES DEFENSE COUNCIL, OCEAN FUTURES SOCIETY, OCEANA, POLAR BEARS INTERNATIONAL, SEA OTTER DEFENSE INITIATIVE, SIERRA CLUB, THE FUND FOR ANIMALS, THE MARINE MAMMAL CENTER, THE WHALE CENTER OF NEW ENGLAND, WHALE AND DOLPHIN CONSERVATION SOCIETY

Madam Chairwoman and Members of the Subcommittee, thank you for the opportunity to present our views on the Marine Mammal Protection Act. My name is Nina M. Young; I am the Director of Marine Wildlife Conservation for The Ocean Conservancy.

I. Summary Statement

The Ocean Conservancy (formerly the Center for Marine Conservation) played a leadership role in the development of the 1994 amendments to the Marine Mammal Protection Act (MMPA or Act), especially those governing the incidental take of marine mammals in commercial fisheries. The Ocean Conservancy believes that with the sweeping changes made in 1994, Congress refined the Act and brought it closer toward achieving its goal of recovering marine mammal populations. The MMPA is an international model for effective conservation and protection of marine mammals. In our view, problems with the MMPA often stem not from the Act itself, but from the agencies' failure to implement the Act fully and effectively, compounded by a chronic lack of resources for effective implementation.

During this reauthorization, we urge the Subcommittee to seize the opportunity to craft a truly visionary reauthorization bill that will tackle the emerging threats to marine mammal conservation. The problems facing marine mammals are becoming more complex. They encompass competition with commercial fisheries, habitat

degradation associated with sound production and pollution, natural phenomena such as climatic regime shifts, and long-term chronic threats such as global climate change. The MMPA must evolve from merely looking at marine mammal stock structure and abundance to assessing marine mammal and ecosystem health. Tools that already exist in the MMPA such as Title IV (Marine Mammal Health Stranding and Response) must be enhanced to establish a dedicated research program encompassing marine mammal health and the threats posed by contaminants and noise.

Any reauthorization bill must not only preserve but also build on the gains that were made in 1994. In our view, an effective reauthorization bill will: prevent the weakening of the definition of harassment; safeguard the zero mortality rate goal; strengthen the MMPA penalty and enforcement provisions to deter violations of the Act; improve the implementation of the take reduction team process; expand authority under Section 118 (16 U.S.C. §1387) to allow the Secretary to authorize take reduction teams for fishery interactions involving prey related issues and human related threats (*i.e.,* ship strikes); strengthen the Act's co-management provisions to allow co-management of non-depleted species/stocks; increase the authorized appropriation levels for the Act overall, but in particular for the health and stranding response provisions; and devise and implement a research plan to develop safe non-lethal deterrents to prevent marine mammals from interacting with fishers' gear and catch.

In the course of reviewing the MMPA through the reauthorization process, we urge the Subcommittee to take a good, objective look at claims made by the Department of Defense that the MMPA is having a deleterious effect on military training and readiness. The Department of Defense proposes to modify the MMPA's definition of harassment, amend its incidental take authorization process, and create a separate broad categorical exemption for its activities. The proposed changes in the definition of harassment and changes in the incidental take authorization process for military readiness would severely undermine the precautionary nature of the Act, remove key conservation elements that restrict the scope of the incidental take to small numbers of marine mammals within a geographic region, and significantly raise the threshold that triggers the Department of Defense's obligation to secure authorization to conduct activities that have the potential to harass marine mammals.

The proposed definition and incidental take authorization amendments would not only increase injuries and deaths of marine mammals, but also diminish transparency, result in a loss of scientific research and mitigation measures, require Federal agencies to make difficult, if not impossible, scientific judgments about whether a given activity is subject to the Act's permitting and mitigation requirements, and impair enforcement of the Act. The end result would be that many military readiness activities would either be exempt outright or could evade the Act's requirements by relying upon the uncertainty and ambiguity created by this new language. The problems caused by the Department of Defense's proposed change to the definition of harassment become an even greater concern and threat to marine mammals if the Administration extends this definition change to all stakeholders as proposed in the Administration bill.

Since 1994, when the MMPA was last amended, the Department of Defense has applied for over twenty incidental take and harassment authorizations. None of these applications has been denied, and in general they all have been issued within the expected timeframes. The Department of Defense has failed to show that the existing incidental take process is overly burdensome, let alone that the proposed statutory changes are needed. To the contrary, it appears that the program is functioning much as Congress intended. Rather than amend the statute, we believe that improved coordination and advanced planning may be the most expedient way to achieve both marine mammal conservation and improve efficiency in the issuance of permits for military readiness activities.

The proposed exemption for national defense effectively creates an escape clause which allows the Defense Department to bypass the incidental take permitting process altogether. Moreover, this exemption is not limited to the incidental take permitting process. As written, it authorizes the Secretary of Defense to exempt "any action or category of actions undertaken by the Department of Defense or its components from compliance with any requirement" of the MMPA for reasons of national defense for a potentially unlimited number of successive two-year periods. Again, despite numerous Congressional hearings, the Department of Defense has failed to demonstrate that an irreconcilable conflict exists within the incidental take authorization or other provisions of the MMPA, or that the flexibility currently provided under the Armed Forces Code is insufficient to merit such a comprehensive and

wide-ranging exemption—one that could render the MMPA's conservation goals and mandates virtually meaningless.

Our comments are organized as follows: first, we provide our section-by-section comments on the Administration bill. Next, we provide additional recommendation for changes to the statute to further marine mammal protection and conservation. Finally, we address the problems with the Department of Defense's proposed amendments to the definition of "harassment," the incidental take provisions, and the proposed addition of an exemption for national defense. Before I begin, however, I would like to emphasize that as the MMPA reauthorization debate proceeds, The Ocean Conservancy would welcome the opportunity to engage in a multi-stakeholder process to resolve concerns with the Administration bill and the Department of Defense's proposal, and to develop a non-controversial and forward thinking reauthorization bill. We believe this type of inclusive process would in the long run provide the greatest benefits to the resource and the Nation.

II. Detailed Comments on the Administration Bill

Title I: Authorization of Appropriations

Department of Commerce

The Ocean Conservancy encourages the Subcommittee to further increase the authorized appropriation levels for both the Department of Commerce and the Department of Interior, to enhance implementation of the MMPA through improved marine mammal stock assessments and health-related research, increased staff resources to process scientific and small take permits, finalize regulations to implement take reduction plans within the time-frame stipulated in the Act and oversee the implementation of such plans, comply with the mandates of Title IV (Marine Mammal Health and Stranding Response Program), and increase observer coverage of Category I and II fisheries.

The Ocean Conservancy believes that the authorization level for the Department of Commerce to carry out the implementation of Sections 117 and 118 (16 U.S.C. §§ 1386–87) is woefully inadequate. For example, Section 117 calls for the National Marine Fisheries Service (NMFS) and the Fish and Wildlife Service (FWS) to produce stock assessment reports that include a description of the stock's geographic range, a minimum population estimate, current population trends, current and maximum net productivity rates, optimum sustainable population levels and allowable removal levels, and estimates of annual human-caused mortality and serious injury through interactions with commercial fisheries and subsistence hunters. The data in these reports are used to evaluate the progress of each fishery towards achieving its goal of zero mortality and serious injury. NMFS has defined a total of 145 cetacean and pinniped stocks in United States waters: 60 stocks in the Atlantic Ocean and Gulf of Mexico; 54 along the Pacific Coast of the continental United States and Hawaii; and 31 in Alaska and the North Pacific.

Accurate abundance estimates and stock identifications are essential to determine trends and population size relative to the optimum sustainable population level, and to calculate the potential biological removal (PBR) level. These are also necessary to ensure that individual stocks are not subjected to intolerable levels of take. Abundance is estimated from counts conducted during aerial or shipboard surveys, and from photo-identification data combined with mark-recapture technology. The most obvious consequence of uncertainty regarding stock abundance or structure is that PBR levels, which are a direct function of stock abundance, become uncertain as does the tolerance of a marine mammal stock to human-caused mortality. If PBR levels are overestimated, then the stock may be exposed to unknown and excessive levels of risk from human-caused mortality. If PBR levels are underestimated, then fishers and fisheries may be unduly restrained by unnecessary regulations. The risk of excessive take from a single stock can be exacerbated when multiple stocks are being managed but the characteristics of each stock (abundance, take levels) cannot be accurately determined. NMFS desperately needs to either undertake and/or update marine mammal stock assessments in the Gulf of Mexico, the Atlantic Ocean and the Pacific Ocean (around the Hawaiian Islands). Similarly, FWS stock assessments for Alaskan marine mammal stocks under its jurisdiction (polar bear, walruses, and sea otters) must also be updated.

In addition, monitoring of commercial fisheries is sorely lacking, as are estimates of incidental take for these fisheries. The MMPA's management framework can only be effectively implemented if incidental take levels are measured accurately and precisely to determine if, where, and when takes are occurring. A take reduction team can recommend effective measures that will reduce the number of takes only if incidental take levels can be reliably estimated. Therefore, reliable estimates of incidental take are fundamental to identifying the problem/interaction, devising

mitigation measures, and obtaining feedback regarding the efficacy of those measures. Currently, observation or monitoring of some fisheries that interact with marine mammals is either absent altogether or insufficient to allow even minimal estimates of incidental take. A chronic problem for fisheries that *are* observed is that the data do not provide the precision needed to estimate incidental take levels with statistical confidence sufficient to detect a real change in the take rate. NMFS must be provided the funds to increase the level of observer coverage in fisheries that interact with marine mammals to derive statistically reliable estimates of incidental take.

NMFS must also continue to fund established take reduction teams until they achieve their goals under the MMPA. Additionally, NMFS should convene several other take reduction teams, including a reconstituted Atlantic Offshore Take Reduction Team. The table below, from NMFS' website, provides a breakdown of cost for the various stages of a take reduction team process. Based on this information, the agency is spending approximately $5 million per year on take reduction teams. Most of the teams are in the monitoring and follow-up stage, with the exception of the Bottlenose Dolphin Take Reduction Team, which submitted its consensus plan in April 2003. Therefore, we recommend that the Subcommittee increase the annual authorization for the Department of Commerce for Sections 117 and 118 to $35,000,000.

Generalized Take Reduction Process

Stage	Element	Time	Cost (not including NMFS salaries)
Pre-team data collection	Abundance surveys	1–3 surveys	$350K per survey
	Mortality estimates	3 years of observer coverage	$850K per year per fishery
	Stock structure data	1–3 surveys	$350K per survey
	Fishery characteristics data		
	Contracting	2–2 ½ years	
Active TRT	Hiring facilitator	(if mortality is >PBR, teams have 6 months to submit plan to NMFS once team is convened)	$500K (4–5 meetings)
	Assembling team		
	Meetings/travel costs		
	Proposed rule	6 months (legally is 60 days)	Staff resources
TRP Development and Implementation	Final rule	6 months (legally is 90 days including public comment period)	Staff resources
TRP Monitoring and TRT Follow-up	Mortality estimates	3–5 years of observer coverage	$850K per year per fishery
	Reconvening teams	As necessary	$100K per meeting

Department of Interior

The Department of Interior implements the MMPA for polar bears, sea otters, walrus, and manatees. The Ocean Conservancy is requesting an authorization of $11,800,000 to improve research and conservation efforts for these species. The FWS is badly in need of revised stock assessments for manatees, walrus, and polar bears, ongoing trend data for declining northern sea otters, and a comprehensive health assessment of southern sea otters.

Marine Mammal Commission

The Marine Mammal Commission (MMC) plays a vital oversight role in the implementation of the MMPA. The MMC is best suited to evaluate emerging threats to marine mammals and offer mitigation strategies. As an independent body it can provide valuable guidance on measures to conserve marine mammals not only to wildlife agencies but also to other interest groups that interact with or incidentally take marine mammals. Over the last several years that role has been severely constrained due to insufficient funds. We recommend that the authorization for the MMC be increased to 3,400,000.

Title II: Native Alaskan Harvest Management Agreements

Subsistence Hunting of Marine Mammals—Management of Strategic Stocks

The management history of the subsistence harvest of beluga whales in Cook Inlet illustrates the need for proactive Federal intervention and management to avoid a marine mammal species becoming eligible for listing as depleted under the MMPA. The purpose of the definition of "strategic" marine mammal stocks in Sec-

tion 3(19), 16 U.S.C. § 1362(19), is to identify unsustainable levels of take so that appropriate action can be taken to avoid listing that stock as depleted under the MMPA or as threatened or endangered under the ESA. While The Ocean Conservancy does not oppose subsistence use, we believe that in cases where marine mammal stocks are designated as strategic, the Federal government should be given the discretion to intervene and work with Native communities to monitor and regulate harvests to ensure the long-term health of the stock and sustainable subsistence harvests. Therefore, we propose that Section 101(b), 16 U.S.C. § 1371(b), be amended to allow the Secretary to prescribe regulations governing the taking of members of a strategic stock by Native communities.

Co-Management of Strategic and Depleted Stocks

While The Ocean Conservancy does not oppose subsistence hunting when conducted in a sustainable manner, we believe that future co-management agreements should generally be limited to stocks that are not strategic or depleted. We support co-management of all non-strategic stocks as long as the co-management agreement considers take throughout the entire range of the stock, includes all Alaskan Natives that engage in subsistence use of that particular marine mammal stock within the area covered by the agreement, provides that any harvest of a stock covered by the agreement is sustainable and designed to protect the stock from becoming depleted or strategic, and contains effective provisions for monitoring and enforcement. A co-management agreement should also provide for review and revocation of the agreement, tie violations of the agreement to the penalty provisions of the Act, and provide grants for research, monitoring, and enforcement of the agreement.

Before a co-management agreement is finalized, or final implementing rules or regulations are published, the public must be afforded an opportunity for notice and comment. We do not believe that the Secretary should be required to consult with Alaska Native Tribes and Tribally Authorized Organizations on depletion determinations under section 3(1)(A) or to provide them with an advance copy of draft proposed regulations under section 101(b)(3). The consultation provision under section 3(1)(A) currently only applies to MMC and its Committee of Scientific Advisors on Marine Mammals; section 101(b)(3) of the Act already provides adequate opportunity for notice and hearing by interested members of the public. We do not oppose the Administration's provisions for cooperative enforcement, authorizations of appropriations, and sovereign authorities/disclaimer.

The Ocean Conservancy looks forward to working with Alaska Native Tribes and Tribally Authorized Organizations on this Title.

Title III: Cultural Exchange and Export

The Ocean Conservancy supports the intent of this provision in the Administration bill to clarify and amend the relevant provisions in the Act to identify those instances when export, transport, sale, or purchase of a marine mammal or marine mammal product is, or may be, authorized. We are concerned, however, that as drafted these provisions may not achieve their purpose.

Title IV: Fisheries Interactions

Because the Marine Mammal Protection Coalition is not taking a collective position on Sec. 401. Tuna-Dolphin Provisions in the Administration bill, our comments will be restricted to the fishery interaction provisions. The Subcommittee should anticipate that individual organizations may provide their position on the Administration bill's Sec. 401. Tuna-Dolphin Provisions.

Sec. 402. Fishery Interaction Provisions

We generally support the amendments in the Administration bill; however, the bill is not sufficiently comprehensive in its approach to improving Section 118 (16 U.S.C. § 1387). The Subcommittee should seize this opportunity to refine this section to address problems that have arisen related to fishers obtaining the required authorization, placement of observers, and the need for funding observer coverage. The Ocean Conservancy offers the following additional suggestions.

Registration and Authorization: The MMPA currently requires vessels engaging in Category I and II commercial fisheries to register with the Secretary to receive authorization to engage in the lawful incidental taking of marine mammals in that fishery. The MMPA provides the Secretary with the authority to place observers on commercial vessels engaging in Category I and II fisheries, and vessels that have received authorization to engage in these fisheries are obligated to take observers on board. The Ocean Conservancy supports the Administration's effort to clarify these issues in its bill, by adding a new clause (v) to section 118(c)(3)(A).

During several take reduction team negotiations, NMFS has remarked on instances where vessel owners have refused to allow observers on their vessels with-

out adverse consequences. NMFS Enforcement has indicated that its efforts to enforce the Act are constrained because NOAA's Office of General Counsel has narrowly interpreted the term "engaged in a fishery" under Section 118(c)(3)(C) to mean engaged in the fishery on the day that a refusal to take an observer occurs. The MMPA should be amended to clarify the obligations of vessel owners in Category I and II fisheries to carry observers if so requested and to provide NMFS with the explicit authority to punish violations of the observer requirements. If the problem is related to the term "engaged in a fishery" then the Act should also be amended to define the term to facilitate enforcement.

The Subcommittee should consider strengthening the incentives for fishers to register under this section by allowing NMFS to seek forfeiture of the catch and to assess a substantial fine against the vessel for any fishing operations conducted in the absence of the required authorization. This could be done by amending section 118(c)(3)(C) or the penalty and forfeiture provisions under section 105 and 106. In any case, the fine currently stipulated in the Act for failure to display or carry evidence of an authorization is not a sufficient deterrent to noncompliance.

Monitoring Incidental Takes: Nearly every take reduction team recommends increased observer coverage. Funds for monitoring programs have been limited; generally, only fisheries experiencing frequent interactions with marine mammals have received priority for observer program coverage. Former NMFS Assistant Administrator Penny Dalton noted in her June 29, 1999, testimony before the House Resources Committee that: "Funds for monitoring programs have been limited; therefore, only fisheries experiencing frequent interactions with marine mammals have generally received priority for observer program coverage. In 1997, approximately 1/5 of the U.S. fisheries having frequent or occasional interactions with marine mammals were observed for these interactions. These large gaps in our knowledge of fisheries' impacts to marine mammal stocks make it difficult to develop appropriate management measures." In most cases, shortfalls in program funding often result in diminished observer coverage. Consequently, The Ocean Conservancy strongly believes that the Secretary should have the discretion to assess fees, as needed, to initiate and implement an observer program, particularly for those fisheries that request such a program.

Take Reduction Plans: The Administration bill proposes an amendment to eliminate the requirement that a take reduction plan be developed for each strategic stock that interacts with a Category I or II fishery. The rationale behind this amendment is that some stocks are considered "strategic" solely because they are listed as threatened or endangered under the Endangered Species Act—not because of high fishery-related mortality. The proposed amendment would eliminate the requirement that a take reduction plan be developed for those strategic stocks for which the Secretary determines, after notice and comment, that the fishery-related mortality and serious injury is having a negligible impact on that stock. While we agree that this amendment will allow the agency to focus limited resources, this goal may be achieved through an amendment that sets priorities for take reduction plans rather than providing the Secretary with the discretion to eliminate take reduction plans entirely for some strategic stocks.

The take reduction team and plan offers the Secretary with the ability not only to reduce fishery-related mortality and serious injury, but also potentially diminish deleterious effects to marine mammal stocks from competition for prey with commercial fisheries. We urge the Subcommittee to consider an amendment to Section 118(f) that would provide the Secretary with the discretion to develop and implement a plan designed to assist in the recovery or prevent the depletion of any marine mammal stock for which the Secretary determines, after notice and opportunity for public comment, that competition between a commercial fishery and that marine mammal stock for a stock of fish that constitute the marine mammal stock's prey is having or is likely to have an adverse impact on the marine mammal stock. Such an approach would conserve the fishery, the marine mammal stock, and the prey species, through integrated research, conservation, and mitigation with regard to fishery management.

We support the Administration's proposed amendment to require that a technical liaison with commercial fishing expertise be assigned to the take reduction team to enhance communication among team members about possible modifications to fishing practices and gear. We also recommend that the Subcommittee consider an amendment to require the participation of representatives from the office of General Counsel of the National Oceanic and Atmospheric Administration, the National Marine Fisheries Service having responsibilities related to fisheries science and law enforcement, and the appropriate National Marine Fisheries Service Regional Administrator. These individuals are crucial to advise the team on the likelihood that the proposed measures can be easily translated into regulatory language, enforced, are

not in conflict with other fishery management measures, and will be supported by the agency.

We support the amendment in the Administration bill that provides the Secretary the discretion to reconvene or consult with the take reduction team to solicit comments on the proposed regulations and any proposed changes to the draft plan during the public review and comment period.

Sec. 403. Expansion of Fisheries Included in the Incidental Take Program/Sec. 404. Conforming Amendments to the Expansion of Fisheries Included in the Incidental Take Program

Some non-commercial fisheries use gear similar or identical to commercial fishing gear and, as a result, are taking marine mammals at rates potentially equal to or greater than rates of incidental bycatch in commercial fisheries. However, according to NMFS, there are currently no mechanisms within the MMPA to monitor, track, or mitigate this take. As a matter of equity, and for purposes of effective marine mammal conservation, non-commercial fisheries that employ gear similar to commercial fishing gear and that have the same potential to take marine mammals should not be exempt from the Act. Therefore, The Ocean Conservancy supports the Administration's proposed amendments to include these fisheries under the provisions of Section 118.

Sec. 405. Striking of Section 114/Sec. 406. Conforming Amendments to the Striking of Section 114

Given that Section 118 is fully functional, there is no longer any need for the interim exemption for commercial fisheries provided for in Section 114 (16 U.S.C. § 1383a). Therefore, Section 114 should be repealed and the necessary technical and conforming amendments made to other provisions in the Act.

Sec. 407. Gulf of Maine Harbor Porpoise

The purpose of this subsection was to allow the Secretary to expedite the preparation of a stock assessment for the Gulf of Maine stock of harbor porpoise and to delay the date by which the incidental mortality and serious injury of this stock was reduced below its potential biological removal level. These dates have passed and the take reduction plan (through a combination of fishery management closures, restrictions, and pinger requirements) has met its goal of reducing the incidental mortality and serious injury of this stock below its potential biological removal level and is approaching the zero mortality rate goal. Therefore we support the elimination of this section.

Sec. 408. California Sea Otter Fishery Interactions

The Administration bill also proposes to include southern sea otters in the section 118 incidental take program for purposes of listing fisheries that are involved in sea otter interactions and for determinations regarding monitoring. Currently, the MMPA excludes southern sea otters from section 118 because of the species' extreme vulnerability to incidental take and the existence of freestanding requirements that govern incidental take, as set forth in Public Law No. 99–625, establishing the so-called zonal management program. The requirements of Public Law No. 99–625 prohibit all incidental take of sea otters, except within the narrowly defined translocation zone.

The proposed amendment would be of no real benefit to southern sea otters. Under current law, incidental take is prohibited throughout most of the species' range, and there is no reason to classify the involved fisheries. Including sea otters for this purpose could be the basis for arguments that incidental take should be authorized under section 118, a result which would be detrimental to the species and contrary to existing law. FWS is currently conducting a review of the failure of the zonal management program under Public Law No. 99–625. Upon the conclusion of that review, it would be appropriate to consider whether to include southern sea otters in any aspect of the section 118 program.

Sec. 409. Alternative Observer Program

This amendment directs the Secretary to explore the use of new technologies for alternative monitoring of fisheries. We fully support this amendment, as the absence or extremely low level of observer coverage continues to be a major obstacle in devising and evaluating mitigation strategies to reduce the incidental mortality and serious injury of marine mammals in commercial fisheries. Alternatives or remote monitoring systems that allow for expanded coverage or improved data collection will advance the take reduction team's ability to craft effective bycatch reduction measures.

Title V: Other Amendments

Sec. 501. Polar Bear Permits

In 1994, Congress provided for the issuance of permits authorizing the importation of trophies of sport-hunted polar bears taken in Canada, subject to certain findings and restrictions. The amendments required the public to be given notice prior to and after issuance or denial of such permits. The Administration bill proposes to change this public notification process to a semiannual summary of all such permits issued or denied. The Ocean Conservancy opposes this provision, as it would establish a blanket exemption to the notice and comment requirement and institute a dangerous precedent under which permits could be issued or denied without much-needed public scrutiny. The public comment process surrounding the issuance of a permit to import polar bear parts is needed to provide public oversight to verify that a permit is tied to tagging that clearly demonstrates when, and from what stock, the polar bear was taken. Rather than weakening the public comment process, FWS should work to ensure that these provisions are effectively enforced and do not result in illegal take or a negative change in the status of stocks that are currently depleted.

Sec. 502. Captive Release Prohibition

This section amends section 102 of the Act to clarify that subject to certain limited exceptions, the MMPA expressly prohibits any person from releasing a captive marine mammal unless specifically authorized to do so under a permit issued pursuant to sections 104(c), or 109(h). The Ocean Conservancy supports the Administration's proposed amendment. We are sensitive to the potential harm that might result, in the absence of mandatory precautionary measures established as conditions of a captive release permit, to the animals released and to wild populations they encounter, through disease transmission, inappropriate genetic exchanges, and disruption of critical behavior patterns and social structures in wild populations. We support this provision but believe that the Administration's proposal would benefit from language that clarifies that the prohibition applies to any person *subject to the jurisdiction of the United States* and to any marine mammal maintained in captivity at a *facility in the United States or on the high seas.*

Sec. 503. Penalties

The Ocean Conservancy believes that Section 105, the civil and criminal penalty provisions of the Act (16 U.S.C. § 1375), should be updated to reflect current economic realities. The existing penalty schedule, enacted thirty years ago and unchanged since enactment, sets penalties that are low enough to be viewed by some violators as an acceptable cost of doing business, thus undermining effective enforcement. We support the Administration's proposal to amend Section 105 of the Act to authorize the Secretary to impose a civil penalty of up to $50,000 for each violation, and a fine of up to $100,000 for each criminal violation. The penalty for failure to display or carry evidence of an authorization, currently set at a maximum of $100, also needs to be increased to $5,000.

Sec. 504. Vessel Fines and Cargo Forfeiture

To increase compliance with the MMPA by ensuring that penalties will deter future violations of the statute, we support the Administration's proposed amendment to Section 106 (16 U.S.C. § 1376), to authorize the Secretary to impose a civil penalty of up to $50,000 against vessels used to take marine mammals and vessels that fish in violation of the provisions of section 118 of the Act. We also support amendments to section 106 that allow for the seizure and forfeiture of a vessel's cargo for fishing in violation of the provisions of section 118.

Sec. 505. Marine Mammal Commission Administration

We support this provision. The *per diem* rate in the Act is too low. Consequently, this provision precludes the MMC from securing the services of most experts and consultants. By removing this restriction, the MMC will be brought under the government-wide rules for the payment of experts and consultants.

Sec. 506. Enforcement

This section would amend section 107(b) by requiring the Secretary to take steps to enter into cooperative enforcement agreements with states. We support this provision as it will likely provide more local enforcement of MMPA provisions.

Sec. 507. Interference with Investigations and Authorized Activities

The MMPA currently contains no specific prohibition against activities that undermine the effective implementation and enforcement of the Act. Individuals who refuse to permit boardings, who interfere with inspections or observers, or who in-

tentionally submit false information may not be subject to prosecution under the MMPA, as such activities are not specifically prohibited. To address this long-standing deficiency within the MMPA, we support the Administration's proposed changes but believe that they could be strengthened by including provision similar to those currently found in the Magnuson-Stevens Fishery Conservation and Management Act (16 U.S.C. § 1857) that include specific language related to observer harassment and interference and the submission of false information.

Sec. 508. Authorizations for Marine Mammal Health and Stranding Response

The Marine Mammal Health and Stranding Response Program under Title IV (16 U.S.C. §§ 1421–21(h)) should retain its own separate authorization provision. *See* 16 U.S.C. § 1421(g). Title IV is critical to the recovery and health of marine mammal populations. To date, the Marine Mammal Health and Stranding Response Program has greatly improved the response to routine strandings of marine mammals and unusual mortality events. Nevertheless, unexplained die-offs of marine mammals have continued on almost an annual basis along the United States coastline, and the wildlife agencies' response to these die-offs has been hampered by a lack of funding. Without adequate funding, the agencies cannot be proactive, develop a strong marine mammal health assessment program, support volunteer stranding networks, or develop accurate baseline information on stranding rates, contaminants, disease, and other factors related to detecting and determining causes of unusual mortality events. Furthermore, the lack of funds hinders these agencies' ability to fully develop and implement contingency programs to respond to die-offs or oil spills, and subsequently determine the cause of these die-offs that are potential indicators of the health of the marine environment.

The Administration's proposal is insufficient. An unusual mortality event could deplete the proposed $125,000 in just tissue sample analysis alone. We recommend that the Subcommittee provide a separate $2,000,000 annual authorization to NMFS for Title IV other than sections 405 and 407, a $2,000,000 annual authorization for carrying out section 407, and a specific annual authorization of $750,000 to the Marine Mammal Unusual Mortality Event Fund.

Sec. 509. Stranding and Entanglement Response/Sec. 510 Entanglement Definition

Each year, an ever-greater number of marine mammals become entangled in fishing gear and other marine debris. It is important that NMFS and FWS have the explicit authority to collect information on these entanglements. Disentanglement has proven an effective mitigation measure for humpback whales, northern fur seals, California sea lions, and Hawaiian monk seals, and has proven to be significant to the survival of the North Atlantic right whale. These efforts promote the conservation and recovery of these species and should continue as a matter of priority. To improve efforts to monitor and respond to entanglement threats to marine mammals, The Ocean Conservancy supports the Administration's proposed amendments to Title IV, 16 U.S.C. §§ 1421–1421h, to expand the requirements in this title to include entanglement situations and to define the term entanglement. We recommend that section 402(b)(3), 16 U.S.C. § 1421(a)(b)(3), also be amended to require the Secretary to collect, update, and analyze such information on entanglements, not just strandings.

Sec. 511. Unusual Mortality Event Funding

We support the proposed amendment in the Administration bill to expand the sources of funding available to the Marine Mammal Unusual Mortality Event Fund. The current language in the MMPA limits the Secretary's ability to allocate funds appropriated generally for the purposes of implementing the MMPA; removing this limitation will facilitate NMFS's response to unusual mortality events. We recommend, however, that the proposed language be amended to clarify that the Fund does not include all amounts appropriated to the Secretary under this Act but only so much of those funds as the Secretary deems necessary and appropriate.

In 1994, Title IV, Marine Mammal Health and Stranding Response, was amended to allow funds from the Unusual Mortality Event Fund to be used for the care and maintenance of marine mammals seized under section 104(c)(2)(D) (16 U.S.C. § 1374(c)(2)(D)). The Marine Mammal Unusual Mortality Event Working Group opposes the use of these funds for this purpose, as does The Ocean Conservancy. This situation could rapidly deplete funds that are needed to respond to unusual mortality events. The need for funds to provide for the care and maintenance of seized marine mammals should be addressed in either the Animal Welfare Act or in another provision of the MMPA. Furthermore, potential contributors to the fund might be deterred by this provision due to the controversy surrounding marine mammals in captivity. The Ocean Conservancy recommends that this provision in Section 405(b)(1)(A)(iii), 16 U.S.C. § 1421d (b)(1)(A)(iii), be deleted.

Sec. 512. Marine Mammal Research Grants

The Ocean Conservancy supports the Administration's proposed amendments to Section 110 which authorizes the Secretary of Commerce and the Secretary of Interior to provide grants or other forms of financial assistance for research relevant to the protection and conservation of marine mammals and the ecosystems on which they depend. We believe that the shift to funding research that would target ecosystem-level problems is in keeping with the emerging threats to marine mammals that appear more symptomatic of ecosystem-based problems. We believe, however, that the Subcommittee should include a specific authorization for this section.

Sec. 513. Traveling Exhibits/Sec. 514 Definition of Traveling Exhibits

This section would amend Section 102 to prohibit traveling exhibits of cetaceans. Because of the stress associated with frequent transport and subsequent acclimation periods, we support this amendment but believe that it should be extended to all marine mammals. We also support the proposed definition of traveling exhibits.

Sec. 515. Definition of Harassment

We will analyze the impacts of this proposed definition later in our testimony when we address the Defense Department's amendments.

Sec. 516. Fisheries Gear Development

The incidental take of marine mammals in the course of commercial fishing operations remains a major source of marine mammal mortality and serious injury. New gear technologies must be developed to reduce entanglements while still allowing fisheries to continue. The Administration's proposed amendments to section 111 would call on the Secretary to launch a new gear development and evaluation effort, establish a voluntary gear buy-back program, enhance coordination with other nations, and create a new mini-grant program to foster small scale gear development projects. We support these amendments, as we believe that gear research and buy-back programs are promising strategies for reducing marine mammal bycatch in commercial fisheries.

Sec. 517. Ship Strikes of Whales

The Administration's proposed amendment would direct the Secretary of Commerce to use existing authorities under the MMPA to reduce the occurrence of ship strikes. Ship strikes constitute 50 percent of all human-related mortality for North Atlantic right whales. Merely directing the Secretary of Commerce to use existing authority within the MMPA will do virtually nothing to eliminate this threat. We propose that the Subcommittee consider an amendment to this section that would call upon the Secretary to develop and implement a ship strike reduction plan, the goal of which would be to reduce, within in five years of implementation, the mortality and serious injury of North Atlantic right whales caused by ship strikes to level approaching zero. The proposed amendment would be patterned after the take reduction team and plan provisions under section 118.

Sec. 518. Use of Fines

The Ocean Conservancy agrees that NMFS should be authorized to use any fines and penalties collected for violations of the MMPA for enforcement expenses and in the administration of its activities for the protection and conservation of marine mammals under its jurisdiction. We recommend that this provision be further amended to make these funds available to the Secretary without further appropriation.

III. Amendments Not Considered in the Administration Bill

New Amendments on Deterrence of Marine Mammals

Although Section 104(a)(4)(B) (16 U.S.C. §1371(a)(4)(B)) requires the Secretary to publish a list of guidelines for safely deterring marine mammals, the Secretary has failed, to date, to comply with this provision. Both The Ocean Conservancy and the fishing industry continue to be extremely frustrated by the lack of statutorily-required guidelines for non-lethal deterrents. Because NMFS cannot enforce guidelines, The Ocean Conservancy recommends that the statute be amended to require NMFS to promulgate regulations that delineate and mandate the use of acceptable methods of safely deterring marine mammals, including threatened and endangered marine mammals, with penalties prescribed for using non-approved methods. The proposed amendment should also establish a process whereby parties may petition to have additional methods of non-lethal deterrence reviewed and approved by the Secretary. The burden of proof to demonstrate that the proposed non-lethal deterrence method is safe and effective would be on the proponent of the method.

Research on Nonlethal Removal and Control of Pinnipeds

Pinnipeds have never been the primary cause of a salmonid decline, nor has it been scientifically demonstrated that they have been a primary factor in the delayed recovery of a depressed salmonid species. Studies show that salmonids make up only a small percentage of pinniped diets, and that habitat loss is a primary factor in salmonid decline. Nonetheless, in 1994, the environmental community, the fishing industry, and Congress provided NMFS with the tools in Section 120 of the MMPA to address the issue of pinniped predation on threatened and endangered salmonid stocks.

Sections 109 and 120 (16 U.S.C. §§ 1379, 1389) offer effective and precautionary approaches to protecting pinnipeds, salmonid fishery stocks, biodiversity, and human health and welfare. Consequently, there is no need to amend the MMPA to allow a blanket authorization for the intentional lethal removal of pinnipeds by state and Federal resource agencies. Nor do we believe that such a blanket authorization would be acceptable to the public.

Non-lethal deterrents hold the most promise to resolve the problems of "nuisance" animals and should be the first line of defense. NMFS has failed, however, to publish final guidelines on acceptable non-lethal deterrents. NMFS has also failed to give sufficient priority to dedicated research into the development of safe and effective non-lethal deterrents. Development of such deterrents will aid in reducing not only predation on threatened and endangered salmonid stocks, but also other conflicts between pinnipeds and humans.

The Ocean Conservancy encourages the Subcommittee to consider an amendment to provide for research into non-lethal removal and control of nuisance pinnipeds. We recommend that such an amendment contain the following elements: (1) require the Secretary to develop a research plan to guide research on the non-lethal removal, deterrence and control of nuisance pinnipeds; (2) ensure that the research, development, and testing of safe, non-lethal removal, deterrence and control methods shall provide for the humane taking of marine mammals by harassment, as defined by Section 3(18)(A)(ii) of the MMPA; (3) include a broad cross-section of organizations and individuals, such as the conservation community, and representatives of the commercial and recreational fishing industries, in the development of the research program; (4) require the Secretary to report annually on the results of this research to Congress, and make the report available to the public for review and comment; and (5) authorize appropriations and new authority for the Secretary to accept contributions to carry out this section.

Cumulative Takes

The Ocean Conservancy is concerned that applicants may be using the streamlined mechanism for authorizing incidental takes by harassment for a period of up to one year to avoid the assessment of the cumulative impacts of such activities over time. Applicants may segment long-term activities into one-year intervals, seeking a separate authorization for each, or may seek separate authorizations for each of several similar or related activities. By themselves, these activities may have only negligible impacts, but may be of significant detriment when viewed cumulatively. Therefore, we recommend that Section 101(a)(5)(D)(i) be amended to ensure authorized activities have a negligible impact, taking into account cumulative impacts of related activities in the authorized period as well as in subsequent years.

Emerging Threats to Marine Mammals

The threats to marine mammals are more growing complicated. Anthropogenic sound, climatic regime shifts, and persistent pollutants do not lend themselves to simple mitigation strategies. Nevertheless, these are threats that must be researched and mitigation strategies devised to conserve and recover marine mammals. The Marine Mammal Commission should be directed to produce a report to Congress on emerging threats to marine mammals. The report would identify and assess the magnitude of emerging and existing threats to marine mammal stocks; evaluate the health of marine mammal stocks in the wild, and correlate that information with data on physical, chemical, and biological environmental parameters; identify data gaps and provide a research plan to fill such gaps; and provide recommendations for regulations or statutory changes to the MMPA to mitigate such threats. The report would also identify actions necessary to conserve marine mammals, meeting the goals of the MMPA in a proactive and constructive manner. We believe this is a perfect role for the MMC.

IV. Department of Defense Proposed Modifications to the MMPA

The Department of Defense is seeking to amend the MMPA's definition of harassment, create a separate incidental take authorization process for military readiness activities, and institute a broad exemption for national defense.

Background

Congress sought to achieve broad protection for marine mammals by establishing a moratorium on their importation and "take." Take is defined by statute as any act "to harass, hunt, capture, or kill, or attempt to harass, hunt, capture or kill any marine mammal" 16 U.S.C. § 1362(13). The MMPA allows the relevant Secretary to grant exceptions to the take prohibitions, by issuing either a "small take permit" or "incidental harassment authorization" if the best available scientific evidence reveals that such take would have only a negligible impact on a specific marine mammal population.

Specifically, Section 101(a)(5)(A), 16 U.S.C. § 1371(a)(5)(A), of the MMPA authorizes the Secretary to permit the taking of small numbers of marine mammals incidental to activities other than commercial fishing (covered by other provisions of the Act) within a specified geographical region when, after notice and opportunity for public comment, the responsible regulatory agency (NMFS or FWS) determines, *inter alia* that the taking would have negligible effects on the affected species or population, and promulgates regulations setting forth permissible methods of taking and requirements for monitoring and reporting. It generally takes the agency 240 days or more to promulgate regulations. In addition, Section 101(a)(5)(D), 16 U.S.C. § 1371(a)(5)(D), provides a more streamlined mechanism for obtaining small take authorizations when the taking will be by incidental harassment only. Under this provision, the Secretary is required to publish in the Federal Register a proposed incidental harassment authorization within 45 days after receipt of an application. Following a 30-day public comment period, the Secretary has 45 days to issue or deny the requested authorization.

The exemptions for incidental take are wedded to the definition of "harassment" since the definition establishes the regulatory threshold to allow the applicant to make an initial assessment whether a small take or an incidental harassment authorization is needed. The definition describes a range of impacts that the regulatory agencies must assess during the authorization process to determine whether to authorize the activity. In 1994, Congress amended the MMPA to differentiate between two general types of harassment: Level A, having the potential to cause physical injury and Level B, having the potential to impact behavior of marine mammals in the wild. The definition is as follows:

> (18)(A) The term "harassment" means any act of pursuit, torment, or annoyance which—
>
> (i) has the potential to injure a marine mammal or marine mammal stock in the wild; or
>
> (ii) has the potential to disturb a marine mammal or marine mammal stock in the wild by causing disruption of behavioral patterns, including, but not limited to, migration, breathing, nursing, breeding, feeding, or sheltering.
>
> (B) The term "Level A harassment" means harassment described in subparagraph (A)(i).
>
> (C) The term "Level B harassment" means harassment described in subparagraph (A)(ii).

Proposed New Definition

The Department of Defense claims that the definitions of Level A and Level B harassment added to the MMPA in 1994 are overly broad and somewhat ambiguous. In an attempt to resolve this perceived problem, the Department of Defense has proposed the following definition:

> For purposes of military readiness activities, the term 'harassment' means any act which—
>
> (i) injures or has the significant potential to injure a marine mammal or marine mammal stock in the wild; or
>
> (ii)(I) disturbs or is likely to disturb a marine mammal or marine mammal stock in the wild by causing disruption of natural behavioral patterns, including, but not limited to, migration, surfacing, nursing, breeding, feeding, or sheltering to a point where such behavioral patterns are abandoned or significantly altered; or

(II) is directed toward a specific individual, group, or stock of marine mammals in the wild that is likely to disturb the individual, group, or stock of marine mammals by disrupting behavior, including, but not limited to migration, surfacing, nursing, breeding, feeding or sheltering.

The Administration bill would extend this definition to all user groups.

Problems with the Proposed Definition

The most salient effect of this language is to raise the threshold of regulatory action. For Level A harassment, the proposed definition would shift from "has the potential to injure" to "injures or has the *significant* potential to injure." For Level B harassment, "potential to disturb" would become "disturbs or *is likely* to disturb;" and an addition would be made to the language governing behavioral disruptions, requiring that "natural" behaviors be "*abandoned or significantly altered."* (emphasis added).[1]

This new language would introduce new uncertainty into the Act. Adding the term "significant" to the definition would take the Act into a scientific and policy arena that is beset by ambiguity. Currently, the state of marine mammal science will not yield a clear, practical definition of "significant potential" or of "significantly altered;" indeed, these terms are likely to generate more scientific questions than answers.

The term "potential" is clear and requires no further evaluation of the significance of an activity's likelihood to injure or disturb. It is protective of the species, requiring only the disruption of basic biological functions or behavioral patterns such as migration, breathing, nursing, breeding, feeding, or sheltering—impacts that are reasonably verifiable—rather than significant alteration of these biologically important behaviors, to trigger the Act's prohibitions. Moreover, because the definition references "disruptions in behavioral patterns," it is clear that it does not encompass any and all behavioral modifications.

The DOD and the Administration bills also add a new requirement to Level B harassment that natural behavioral patterns be disrupted to the point where such behavioral patterns are abandoned. Requiring the abandonment of critical biological behaviors for an action to constitute harassment violates the precautionary goals of the Act and sound scientific conservation principles. In addition, what constitutes "abandonment" of behavioral patterns under the proposed new definition of Level B harassment will vary according to species, gender, time scale, and the nature of the behavior itself. The proposed amendment offers no basis to determine what constitutes abandonment of behavioral patterns.

Taken together, these changes would have a debilitating effect on enforcement. Under the terms of the Act, an applicant would have initial authority to decide whether its activities have the "significant potential to injure" marine mammals or are likely to "significantly alter" marine mammal behavior. A great many activities could simply evade the Act's requirements by the Defense Department, or other applicants, relying upon the uncertainty and ambiguity in this new language and not seeking authorization in the first place. For the public or NMFS to enforce the Act in these circumstances would be difficult.

The practical outcome is that many more marine mammals would be harmed by not only military activities, but other activities, such as oil and gas exploration that incidentally take marine mammals. Potentially injurious activities that were once assessed, monitored, and mitigated under the Act would no longer enter the permit process. NMFS could not ensure that the impacts of such activities on populations or stocks would be negligible. In addition, small take permit and incidental harassment authorization mitigation measures and monitoring requirements that have been effective in protecting marine mammal populations and resulted in critical information on the impacts of a particular activity would be lost. Overall, the result of these changes is likely to be more injury and death of marine mammals, less mitigation and monitoring of impacts, less transparency for the public and the regulatory agencies, and even more controversy and debate.

Department of Defense Mischaracterizations of Issues Related to the Definition of Harassment

In his written testimony before the Subcommittee on Readiness of the House Armed Services Committee, Deputy Under Secretary of Defense, Raymond F.

[1] The third subparagraph, which establishes a somewhat more conservative standard for behavioral impacts, would apply only to activities that are directed toward a specific individual, group, or stock of marine mammals, not to activities that take marine mammals incidental to their operation. This provision would not cover any of the activities for which the DOD has sought small take permits or incidental harassment authorizations under the MMPA.

Dubois, Jr. stated that: "The new definition, as we requested last year, reflects the position of the National Research Council (NRC) and focuses on minimizing injury and biologically significant disruptions to behavior critical to survival and reproduction."

The NRC convened a panel on marine mammals and low frequency sound that, among other things, looked at the MMPA's definition of harassment (National Research Council 2000). However, the NRC recommendations differ substantially from the Defense Department's proposed amendment. First, the NRC panel proposed no modifications to the definition of "Level A" or injurious harassment. Second, the NRC retained the current standard of probability in the definition for "Level B" harassment, by including the phrase "has the potential to disturb a marine mammal . . ." Third, the NRC did not raise the threshold for the disruption of natural behaviors in Level B harassment to the Department of Defense's level of "abandonment or significantly altered."[2]

In its testimony, the Defense Department, to bolster its assertion that the definition of harassment is flawed and must be changed, cites two examples of recent Federal district court cases where scientific research was stopped due to concerns about acoustic impacts to marine mammals. Deputy Assistant Secretary of the Navy, Wayne Arny, before the Subcommittee on Readiness of the House Armed Services Committee, stated:

> In one case, the court enjoined seismic air gun research on geological fault lines conducted by the National Science Foundation off the coast of Mexico based on the court's concern that the research may be harming marine mammals in violation of the ESA and NEPA. In another case a court enjoined a Navy funded research project by the Woods Hole Oceanographic Institute designed to study the effectiveness of a high frequency detection sonar (similar to a commercial fish finder) in detecting migrating Grey Whales off the coast of California. The court's order stopped research on the development of a promising mitigation measure to avoid harming marine mammals from acoustic sources.

In the case of the National Science Foundation's (NSF) use of seismic airguns to undertake geological research, NSF never even applied for an incidental take authorization under the MMPA. In addition, the project was funded and implemented without completing an Environmental Assessment or Environmental Impact Statement under the National Environmental Policy Act (NEPA). The Woods Hole case involved a series of permits issued by NMFS for scientific research pursuant to section 104 of the MMPA. Moreover, the challenge to these permits was brought under NEPA for failure to perform the required analysis of environmental impacts, not the MMPA. Although we understand the adverse reactions that these decisions have engendered within the scientific community, these cases have little or no bearing on the sweeping statutory changes to the MMPA sought by the Department of Defense.

Proposed Changes to the MMPA's Small Take and Incidental Harassment Provisions

The Department of Defense proposes to create a separate incidental take authorization process for military readiness activities. While similar to the existing small take and incidental harassment authorizations in Sections 101(a)(5)(A) and 101(a)(5)(D) of the MMPA respectively, the proposed process eliminates key conservation elements that restrict the scope of the incidental take to small numbers of marine mammals while engaging in a specified activity within a specified geographic region.

Deletion of Requirement That Incidental Take Authorization Be Limited to Small Numbers of Marine Mammals of a Species or Population Stock

Sections 101(a)(5)(A) and 101(a)(5)(D) of the MMPA allow the Secretary to authorize the incidental take of only "small numbers of marine mammals of a species or population." Although in restricting the take to "small numbers" of marine mammals the Committee acknowledged that it was unable to offer a more precise formulation because the concept was not capable of being expressed in absolute numerical limits; it made clear its intent that the taking should be infrequent, unavoidable,

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[2] The definition proposed by the NRC, while more conservative than that proposed by the Department of Defense, introduces two new terms: "meaningful" and "biologically significant." The MMC noted in its testimony before the House Resources Committee in 2001 that:

". . . However, when assessing activities that cause behavioral modification, we often cannot distinguish between those activities that will have significant, long-term effects and those that will not . . . Until we have the capability to distinguish reliably between what is and is not significant, or what will or will not have long-term consequences, the Commission believes that it would be ill-advised to adopt a definition that excludes consideration of short-term impacts entirely."

or accidental. H.R. REP. NO. 228, 97th Cong., 1st Sess. 19 (1981). Therefore, it is obvious that the incidental take authorization is not intended to provide the Department of Defense with the ability to take unlimited numbers of marine mammals. In addition, the Committee noted that this requirement is separate and distinct from the required finding that the taking of small numbers of marine mammals will have a negligible impact on such species or stock. *Id.*

The requirement that incidental take under these provisions be limited to "small numbers of marine mammals of a species or population stock" is an important and independent requirement that should continue to apply to all persons, including the Department of Defense. Deleting this requirement would allow increased and potentially unsustainable levels of injury or harassment. Although it is true that the bill retains the requirement that the Secretary find that the incidental taking have a negligible impact on the species or stock, these impacts are difficult to analyze, especially for marine mammal stocks for which little is known about their abundance or biology. Without the "small number" limitation, it may be difficult to evaluate the effects of injury or harassment on annual rates of recruitment and thereby establish sufficiently stringent quantitative standards for negligible impact; this creates the risk that adverse, possibly irreversible impacts will occur before they can be assessed. The additional requirement in the existing law, that the take be restricted to small numbers of marine mammals, ensures that that the biological consequence of that take will not hinder a marine mammal population's ability to grow or recover.

Deletion of Requirement That Activities Take Place Within a Specified Geographical Region

Congress amended the MMPA in order to ensure that the specified activity and the specified region are narrowly identified so that the anticipated effect would be substantially similar. H.R. REP. NO. 228, 97th Cong., 1st Sess. 19 (1981). NMFS defines specified geographical region as "an area within which a specified activity is conducted and that has certain bio-geographic characteristics." C.F.R. § 216.103. The Defense Department's proposal would strike this requirement—despite its importance to environmental assessment under the Act, and its consonance with sound management of marine mammals.

Restricting the activities to a specified region is in keeping with the requirements that the incidental taking must have a negligible impact on a stock of marine mammals and ensure that the taking has the least practicable adverse impact on its habitat. NMFS criteria for stocks states that stocks should be defined on the smallest divisible unit approaching that of the area of take unless there exists evidence of smaller subdivisions provided by ecology, life-history, morphology, and genetics data. (NMFS 1995 and 1997). In combination with the "small numbers" limitation discussed previously, this fine-scale approach to defining stocks provides an effective conservation and management strategy for restricting take geographically and numerically to prevent depletion of marine mammal populations and for prescribing mitigation that is appropriately tailored and scaled.

In addition, geographic regions themselves serve different biological purposes for marine mammal stocks. Some areas are vital to foraging, others are migratory corridors, and still others are vital to breeding, calving, and reproduction. The biological significance of a particular habitat or region is critical for determining whether the taking will have a negligible impact on the population of marine mammals and result in the least practicable adverse impact on its habitat.

Removing the requirement that the incidental take be restricted to a specified geographic region is contrary to effective conservation and management practices that limit take to narrowly defined marine mammal stocks on a restricted geographic basis to avoid depletion. It also jeopardizes the MMPA's goals of habitat conservation as it undermines effective consideration of the biological role or significance of the habitat to that marine mammal stock.

The Department of Defense Has Not Made a Compelling Case That These Statutory Changes Are Needed—Incidental Take Permits Are Routinely Granted on a Timely Basis

Since 1994, when the current definition of "harassment" was adopted, the Department of Defense has submitted six applications for small take authorizations and sixteen under its "incidental harassment authorizations," one of which was subsequently withdrawn. As Assistant Administrator William Hogarth noted in his testimony before the Committee on Armed Services in March, 2002, no application for either a small take or incidental harassment authorization submitted by the Defense Department has ever been denied.

From the period 1994 to present, the Defense Department sought six small take authorizations. For four of these applications, it took an average of just over fifteen months from application date to the effective date of authorization. As noted above, decisions on small take applications can take from 6–12 months to promulgate regulations and issue the Letter of Authorization. Fifteen months barely falls outside of that range.

In only two cases, applications to take marine mammals incidental to shock testing of the USS Seawolf and the deployment of the SURTASS LFA, the decision process took approximately three years. This was due to a myriad of factors, unique to these applications, including their scope, complexity, number of public comments received, and time required to comply with NEPA.

Similarly, the incidental harassment authorizations averaged just over four months from application to effective date of authorization, only slightly longer than the statutory mandate of 120 days. In light of this information, the Department of Defense has not shown either that it is unable to comply with the existing permitting requirements or that the length of the existing incidental take process is burdensome. To the contrary, it appears that the program is functioning much as Congress intended.

Opportunities Exist to Improve Implementation of the Act Administratively

The Defense Department's proposal to create a separate incidental take exemption process for military readiness activities would introduce substantial ambiguity and would eliminate critical elements from the authorization process. Rather than pursue dramatic legislative change, the need for which has not been demonstrated, we believe that the Department should look to non-legislative alternatives to further streamline the administrative process. In this context, Assistant Administrator Hogarth, in his March 2002 testimony, stated:

> Our ability to be efficient stems in large part from our ability to discuss activities with our Navy counterparts in advance, and with an understanding of the overall activities and needs of the program. With respect to our regulatory program, our limited staff is directly related to our ability to meet the increasing demands by Navy and other agencies. However, to the extent the Navy and other action agencies can plan sufficiently far in advance of activities and provide us with adequate time to work with them at the earliest possible stages, the implications of the permit process should be minor.[3]

The Department of Defense and NMFS are about to sign a Memorandum of Understanding that would further improve the authorization process. Based on these statements, and our own knowledge of how the current program functions, we believe there are a number of ways to administratively improve its implementation to address the concerns of the Department of Defense, without amending the statute or undermining its conservation objectives. We believe that this approach is the most expedient way to achieve both marine mammal conservation and to improve efficiency in the issuance of permits for military readiness activities. As a first step, we urge NMFS to undertake a programmatic review of the incidental take authorization program as a means to improve efficiency and meet the goals and mandates of the MMPA.

Proposed Exemptions of Actions Necessary for National Defense

Finally, the Department of Defense has proposed to add a new subsection 1371(e), Exemptions Of Action Necessary For National Defense, which would authorize the Secretary of Defense to exempt any action or category of actions undertaken by the Department of Defense from compliance with any requirement of the MMPA if the Secretary determines it is necessary for national defense. The exemption is for a period of two years with the possibility of unlimited additional exemptions, each two years in duration. The effect of this provision is to create an escape clause that allows the Defense Department to bypass the incidental take permitting process entirely. Moreover, this exemption would apply broadly to any requirement of the MMPA for any action or category of actions undertaken by the Defense Department which the Secretary determines are necessary for national defense.

We believe this exemption is excessively broad for four reasons. First, it would vest authority to grant an exemption entirely in the Secretary of Defense. Second, the exemption applies to "any action or category of actions undertaken by the Department of Defense or its components," and so is not limited to individual activities, technologies, or exercises, allowing in theory for a sweeping application of this

[3] Available at this time in transcript form from *www.house.gov/hasc/openingstatements andpressreleases/107thcongress/02-03-14hogarth.html.*

provision. Third, the exemption confers immunity from "compliance with any requirement" of the MMPA. Fourth, the Secretary of Defense can avail himself/herself of endless renewals of the exemption. Even more fundamentally, we believe the Department of Defense has failed to demonstrate an irreconcilable conflict exists within the incidental take authorization or any other provision of the MMPA that would merit such an exemption—one that would render the MMPA's conservation goals and mandates virtually meaningless.

The Department of Defense has flexibility under the Armed Forces Code, 10 U.S.C. § 2014, to seek special accommodation and relief from any agency action that, in its determination, would have a "significant adverse effect on the military readiness of any of the armed forces or a critical component thereof." If the accommodations it seeks are not forthcoming and an agreement is not reached directly with the head of the Executive agency concerned, it may take its case directly to the President. These provisions have never been invoked with regard to the MMPA, presumably because the Department's requests for authorization under the Act have never been denied and because any mitigation required by the agency was judged not to have a significant adverse effect on readiness. The Department of Defense has not demonstrated that either the flexibility to seek special accommodation and relief under the Armed Forces Code is insufficient or that the broad exemptions it now seeks are warranted.

V. Conclusion

The Ocean Conservancy believes that the MMPA has made significant progress in conserving marine mammals and that the statute is at a unique stage in its evolution. Congress can, and should, use this opportunity to craft narrowly focused amendments to improve the implementation and enforcement of the current Act, as well as to adopt new provisions that will begin to address the emerging threats to marine mammals.

Our groups support the military's efforts to protect national security and are sensitive to the issue of military readiness. We do not believe, however, that the Defense Department has demonstrated that the dramatic changes proposed are necessary or that it has utilized the administrative remedies available to it under existing law. The Department of Defense's proposals to modify the MMPA's definition of harassment, create a separate incidental take authorization process for military readiness activities, and create a broad exemption to the MMPA, threaten to severely undermine the precautionary nature of the Act and lead to significantly increased harm to marine mammal populations.

We support a process, in the context of MMPA reauthorization, in which all stakeholders can work together to develop creative and collaborative approaches to demonstrated problems. We hope this Subcommittee will allow us the opportunity to work constructively on alternative approaches with all of the affected agencies and organizations to try and address the concerns of all interest groups and ultimately draft a progressive reauthorization bill for this keystone conservation law. We look forward to participating in this effort.

Senator SNOWE. Thank you very much, Dr. Young.

Dr. Tyack?

STATEMENT OF PETER L. TYACK, SENIOR SCIENTIST, BIOLOGY DEPARTMENT, WOODS HOLE OCEANOGRAPHIC INSTITUTION

Dr. TYACK. Thank you. Madam Chair and distinguished Members of the Committee, my name is Peter Tyack. I am a biologist at the Woods Hole Oceanographic Institution and I thank you for the opportunity to testify.

I was a member of two committees of the National Research Council on marine mammals and ocean noise.

I would like to start by pointing out that an important suggestion for changes to the MMPA argues for authorizing incidental taking of marine mammals in the same way for all activities, allocating regulatory effort to situations most likely to risk adverse impacts. Currently we are very far from this goal. Today's MMPA has wildly different criteria for authorizing different activities, allowing

some fisheries to kill animals with no requirement beyond reporting, while having no procedure available for other activities to authorize more than a few insignificant harassment takes. I would ask all Members of this Committee to stop and consider whether our national priorities should put marine mammals more at risk for commercial fishing than for oceanographic research, the search for domestic sources of petroleum, or the ability to protect ourselves from enemy submarines.

In spite of the many serious threats facing marine mammals, a primary regulatory effort under the MMPA has targeted the very scientific research designed to understand and protect these animals. Regulatory delays block research designed to protect marine mammals from unregulated threats. Let me illustrate with an example from a leader in efforts to protect right whales.

Scott Kraus has been waiting 23 months for a renewal of his permit to conduct conservation research while NMFS tries to finish environmental analyses under NEPA. I want to point out that theme again. While he waits, at least 10 right whales have entangled in fishing gear and 6 are thought to have died. Fishermen continue to place lethal fishing gear where it can kill whales, but Kraus cannot test new ideas for whale-safe gear because the environmental paperwork for his research is not completed even after almost 2 years of delay.

I have also personally experienced the mad world where Federal actions block the research needed to protect marine mammals. Whale-finding sonars that worked like fish finders have recently been developed to harmlessly detect whales. Before these whale finders can responsibly be used to protect whales, we need to know how well they detect whales at sea. A study I developed to do this was delayed by a last-minute nuisance lawsuit. In the end, the judge ruled that the amendment to my permit was invalid because the NMFS Permit Division had not prepared a new environmental assessment under NEPA.

The failure of NMFS to prevail in recent court challenges suggests the need for environmental assessments or impact statements for each activity that may be permitted. It typically takes several months at about $100,000 to produce an environmental assessment and up to $1 million and 1 to 2 years to produce an environmental impact statement. Unless the regulatory environment changes dramatically, it will cost as much to permit critically needed research as to conduct the research itself. The NMFS Permit Division will require a considerable injection of funds and highly skilled personnel to oversee the production of the required NEPA documents while expediting the flow of scientific permits.

The time required to obtain a research permit has swelled from 3 months to 6 months to 23 months and counting. These delays kill critical research projects. I urge Congress to follow the recommendations of the NRC and set deadlines of 3 to 4 months for issuing a permit for scientific research.

Congress is now evaluating new proposals for special exemptions to the MMPA. Clearly there are problems with the act, but I believe that we need one incidental take authorization process for all activities, allocating regulatory effort to situations most likely to risk adverse impacts to marine mammals.

The MMPA needs a de minimis standard for harassment takes. All seafaring activities should consult with NMFS to determine whether they take marine mammals under this standard, and if so, what the impact is. The MMPA needs a general authorization for incidental takes with a minimal impact.

With regard to suggested changes for existing incidental take authorizations, I support removing the conditions of small numbers and specified geographical region as long as a sharp focus is maintained on the issue of negligible impact.

However, as a biologist who has studied the behavior of marine mammals for more than 25 years, I cannot support the new administration definition for Level B harassment. I find the addition of the word "abandoned" particularly confusing. An air-breathing mammal that abandons surfacing is not harassed. It is dead. I urge the Senate to consider using the definition of Level B harassment suggested by the NRC as an alternative to the confusing administration definition, or at the very least the term "abandoned" should be deleted and the phrase "significantly altered" should be defined to parallel the NRC term "biologically significant."

Thank you very much for your attention.

[The prepared statement of Dr. Tyack follows:]

PREPARED STATEMENT OF PETER L. TYACK, SENIOR SCIENTIST, BIOLOGY DEPARTMENT, WOODS HOLE OCEANOGRAPHIC INSTITUTION

Madame Chair and distinguished members of the Committee, my name is Peter L. Tyack. I am a Senior Scientist and Walter A. and Hope Noyes Smith Chair in the Biology Department of the Woods Hole Oceanographic Institution in Woods Hole, Massachusetts. Thank you for the opportunity to provide my views on reauthorization of the Marine Mammal Protection Act (MMPA).

I have been fascinated since I was a child with the social behavior of marine mammals and how they use sound to communicate and explore their environment. I have spent much of the last 25 years following these animals at sea, listening to their sounds and watching their behavior. As I started my career in basic research it never occurred to me that chasing my personal interests would ever become central to such an important policy issue. In my testimony I address issues concerning regulation of harassment takes under the MMPA, especially those for scientific research and incidental takes resulting from exposure to manmade noise.

Introduction

Three committees of the National Research Council (NRC) of the National Academy of Sciences have reviewed issues concerning low frequency sound and marine mammals. Each of these NRC committees has published a report:

> National Research Council (NRC). 1994. *Low-Frequency Sound and Marine Mammals: Current Knowledge and Research Needs.* National Academy Press, Washington, D.C.
>
> National Research Council (NRC). 2000. *Marine Mammals and Low-Frequency Sound: Progress Since 1994.* National Academy Press, Washington, D.C.
>
> National Research Council (NRC). 2003. *Ocean Noise and Marine Mammals.* National Academy Press, Washington, D.C.

I was a member of the first two committees and reviewed for the NRC the report produced by the third committee. I would like to take this opportunity not only to give my personal views, but also to reiterate some of the repeated suggestions of the NRC committees for changes to the MMPA.

Regulations to protect marine mammals need to be drawn to focus scarce regulatory resources on situations where "takes" are most likely to risk adverse impacts to marine mammals

One of the most important suggestions of the NRC reports on marine mammals and ocean noise is to regulate harassment in the same way for all activities, allocating regulatory effort where harassment takes are most likely to risk adverse im-

pacts to marine mammals. Currently we are far from this goal. For commercial fisheries, section 118 of the MMPA allows incidental taking of marine mammals as long as there is negligible impact from incidental mortality and serious injury. NMFS interprets this as an exemption for commercial fisheries from the prohibition of harassment. Harassment takes are also ignored for effects of propulsion noise from vessels, which accounts for more than 90 percent of the acoustic energy humans put into the sea. Many other users of sound in the sea, from the Navy to geophysical contractors to academic oceanographers, find themselves in a no-man's land, where the appropriate regulatory process for incidental harassment takes is obscure. So far the solutions of the regulatory agencies have fared poorly in court.

Congress speaks through the MMPA to give commercial fisheries a special exemption with much more scope to harass marine mammals than other activities such as conservation research, naval exercises, or oil exploration. This is in effect a statement of national priorities, ranking activities for which the United States is most willing to risk the well being of marine mammals. I would ask all members of this Committee to stop and think whether commercial fishing should automatically rank as a higher national priority than scientific research, the search for domestic sources of petroleum, or the ability to protect our Nation from enemy submarines.

During the past several years, there have been efforts to address the very real problems with the MMPA by developing new exemptions for specific activities such as military readiness. I do not think that complicating the Act by creating yet another special exemption is the best answer. I strongly urge Congress to respond to the problems highlighted by DOD by trying to fix the underlying flaws in the regulatory procedures of the MMPA before granting a special exemption that does nothing for marine mammal conservation and leaves many other producers of sound in the sea with no way to meet the regulatory requirements. If done correctly, the regulations might be able to include all activities in a streamlined regulatory approach that focuses attention on those situations that pose the most risk to marine mammal populations.

The dirty secret of the MMPA is that the prohibition on unintentional takes is ignored more often than it is regulated and enforced. For example, ships regularly collide with marine mammals and often kill them. So many highly endangered right whales are killed by vessel collision, that population models predict this additional mortality may drive the species to extinction. While fisheries are regulated for lethal takes under section 118 of the MMPA, no other activity is included in these regulations. If a fishing vessel casts nets that may entangle and kill marine mammals, the vessel is regulated. If the fishery takes enough marine mammals to threaten a population, the fishery may be shut down. Every time a ship speeds through right whale habitat, there is a low but real chance the ship may strike and kill a whale, speeding the species to extinction. Yet there is no regulation of this risk, nor to my knowledge has any ship been prosecuted for striking a whale and killing it.

Regulation and enforcement of harassment takes is even worse than lethal takes. The senior enforcement attorney for one of the NMFS regions reported to the Marine Mammal Commission last year that his region will not prosecute cases of level B harassment for companies that take tourists to swim with wild dolphins. This growing industry based upon intentional harassment thus can count on freedom from prosecution of its violations of the MMPA, and indeed can openly advertise their business based upon illegal taking. On the other hand, marine mammal biologists are required to wait half a year or more for permits covering the slightest possibility that their research may disrupt the behavior of marine mammals. Once they receive a permit, the permitting process itself may trigger litigation that can block urgently needed conservation research.

The National Academy (2000) report on Marine Mammals and Low-frequency Noise disagreed with the strategy of special exemptions for specific activities that cannot operate under the current restrictions of the MMPA, but rather argued for creating a comprehensive regulatory structure for all activities that might take marine mammals.

> The Committee also suggests that activities that are currently unregulated, but which are major sources of sound in the ocean (*e.g.,* commercial shipping) be brought into the regulatory framework of the MMPA. Such a change should increase protection of marine mammals by providing a comprehensive regulatory regime for acoustic impacts on marine mammals, eliminating what amounts to an exemption on regulation of commercial sound producers and the current and historic focus on marine mammal science, oceanography and Navy activities. (p. 72)

This change would be all the more effective if it was not limited to acoustic impacts, but included all sources of takes including harassment into an integrated workable regulatory structure.

I urge the Commerce Committee to resist adding special exemptions to the MMPA for specific activities, but instead to consider modifications that require all potential takes to be accounted for. These modifications should separate activities into those with remote likelihood, moderate, or high probability for incidental takes with a potential for adverse impacts to populations of marine mammals. This broadening of regulation would require a streamlined authorization procedure, with simple general authorizations for activities thought to have negligible impact, and more careful regulation of activities that threaten populations of marine mammals. Given the history of regulation under the MMPA, Congress may have to require the regulatory agencies to direct regulation and enforcement to those activities posing the highest risk, and to streamline regulation of those activities that pose lower risks.

Problems with permitting scientific research on marine mammals

As a biologist personally concerned with protecting marine life, I believe that double standards in the MMPA have led to a particularly counterproductive situation for permitting scientific research designed to protect marine mammals. The permitting process was created to allow an exemption for scientific research from the MMPA prohibition on taking marine mammals. It is ironic that, far from exempting research from an effective prohibition, the permitting process restricts for researchers, activities that are unregulated for other users. For example, a scientist playing back the sounds of a tanker to monitor responses of whales requires a permit to cover any "takes" for animals whose behavior has changed, while the thousands of tankers entering U.S. ports are unregulated. This is particularly ironic since the first warning about effects of noise on marine mammals concerned the risk that increased shipping noise might significantly reduce the range over which whales could communicate, a warning issued in 1972, the year the MMPA was enacted. Not only can the shipping industry ignore the likely disruption of behavior caused by noise, but even the lethal "impacts" caused when a vessel collides with a whale are completely unregulated. Nothing we have learned in the following decades has reduced scientific concern, yet in spite of three decades of warnings, NMFS has only just started to take the first steps to protect whales from the risks posed by vessel traffic.

As early as 1985, NMFS stated in its Annual Report on the MMPA that "one of the most extensive administrative programs in NMFS is the permit system that authorizes the taking of marine mammals for scientific research and public display." I understand that today the NMFS Permit Office has 7 personnel devoted to research permits, but only two devoted to all other authorizations for incidental taking. From my perspective, this is backwards. Scarce regulatory resources should only be devoted to minor harassment takes for research after the much more significant takes of activities that do not benefit marine mammals are controlled by regulations that are effectively enforced.

It has been recognized for over a decade that the regulatory focus on research activities is interfering with research needed to obtain critical information to evaluate risk factors for noise exposure in the sea. As the 1994 National Academy report on Low-frequency Sound and Marine Mammals put it:

> Scientists who propose to conduct research directed toward marine mammals are aware of the permitting requirements of the MMPA and of the Endangered Species Act (ESA) and the associated regulations. Most of their research can be conducted under the scientific permitting process. They routinely apply for and obtain such scientific research permits. However, the lengthy and unpredictable duration of this process can create serious difficulties for research. . . . In addition to permit delays, certain types of research that are considered "invasive" or "controversial" either are not allowed under the current permitting process or may require an Environmental Assessment or even an Environmental Impact Statement under the National Environmental Protection Act (NEPA). Such a regulatory burden actively discourages researchers from pursuing those lines of study. (p 29)
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> The committee strongly agrees with the objective of marine mammal conservation, but it believes that the present emphasis on regulation of research is unnecessarily restrictive. Not only is research hampered, but the process of training and employing scientists with suitable skills is impeded when research projects cannot go forward. Experienced researchers are the ultimate source for expanding our knowledge of marine mammals. A policy that interferes with the development of this resource appears to be self-defeating. (p 30)

Things were bad in 1994, but they have recently become much worse. The delays for permitting have become much longer, over 21 months in some cases. In addition, the judge in a recent court case regarding the permitting process ruled that all acoustic research on marine mammals is controversial. This led him to rule that a permit for acoustic research requires an accompanying Environmental Assessment or Environmental Impact Statement. This decision means that all of the research that can help resolve the marine mammal issues raised by the National Academy reports is subject to much more regulatory burden than before. Unless Congress changes the regulatory process or provides new funds to the NMFS Office of Protected Resources to conduct the analyses required under NEPA, the permitting process will not only discourage research, but may make it almost impossible to conduct some research that has negligible effects and is urgently needed for conservation biology.

Let me illustrate with an example from the research of Scott Kraus, a biologist at the New England Aquarium who has studied North Atlantic right whales for decades under a series of research permits from NMFS. In August of 2001, he applied for a new permit, as his old one was set to expire 31 December 2001. In November 2001, after the end of the public comment period, the Permit Division received a letter from a self-styled "environmental warrior" claiming, incorrectly in my belief, that the research would harm right whales. In early December 2001, operating under his old permit, Kraus started aerial surveys to keep ships from hitting whales, and he was told the biological opinion for the new permit was almost done. Kraus never received his permit by the time his old one expired, and on 24 January 2002, NMFS informed him that they would defer decisions on a permit until an Environmental Assessment was conducted following NEPA rules. This was a complete surprise for Kraus, who had to cancel a research program designed to develop whale-safe lines for fishing gear. During 2002, at least eight right whales entangled in fishing gear, and six were thought to have died. It is now May 2003. Kraus had to cancel another attempt to repeat the whale safe fishing line project in 2003, and he still has no prediction from the NMFS Permit Division as to when his permit will be issued. There may be a new determination of a need under NEPA for an Environmental Impact Statement for his permit, not just an Environmental Assessment.

Let me recap. The survival of right whales in the North Atlantic is threatened because so many are killed from entanglement in fishing gear and from vessel collision. Unlike any airline, as a scientist, Kraus needs a permit to fly over right whales, in case the whales might hear the plane and somehow be disturbed. Delays in permitting endanger his ability to fly surveys designed to warn ships of the presence of whales. The ships that regularly kill whales are subject to no regulation, and travel wherever they please at any speed through critical habitats of the most endangered whale in U.S. waters. In spite of some fisheries regulations, whales are dying in fishing gear at alarming rates. Fishermen can continue to place lethal fishing gear where it can kill whales, but Kraus cannot test new ideas for whale safe fishing gear, because the environmental paperwork for his research is not sufficient, even after 21 months of delay. Is there something wrong with this picture?

I have also personally had experience with the mad world in which Federal actions block the research needed to protect marine mammals from poorly regulated impacts of human activities. We cannot protect marine life from intense underwater noises until we get better at detecting when a marine mammal or sea turtle is in the danger zone. Recently, there have been promising developments for whalefinding sonars. These are high frequency sonars that work like fish finders to detect echoes from animals close enough to be harmed by unintentional exposure to intense sounds. When these whalefinding sonars reached the point in their design process where they were ready to be tested at sea, I submitted an application to amend my research permit to test how well a whalefinding sonar could detect migrating gray whales. We know how migrating gray whales respond to noise, and we expected little if any behavioral response to the whalefinding sonar. The study was designed with very sensitive methods to detect whether whales avoided the sound source by a hundred meters or so, and we requested permission to "take" the whales by harassment.

The Permit Division of NMFS issued the amendment to my permit in a timely fashion, but only after deciding that the amendment did not require a new environmental assessment. The environmental assessment conducted by NMFS for my original permit had already covered testing a whalefinding sonar on whales. The wording allowing "takes" of gray whales alarmed an animal rights advocate in Australia, who gathered a few small fringe groups in the U.S. to request an injunction against the research the day before the study was to begin. The study was delayed by a temporary restraining order and the entire field team and one of the research

vessels in our national oceanographic fleet were tied up for most of the month planned for the research. In the end, the judge ruled that the amendment to my permit was invalid because the NMFS Permit Division had not prepared a new Environmental Assessment under NEPA not just for my original permit, but for each major amendment to the permit. Hundreds of thousands of taxpayer dollars were wasted and we are a year behind in developing more effective methods for monitoring marine mammals.

The NMFS Permit Division of the Office of Protected Resources has just nine personnel and is increasingly inundated. In 2001 they advised scientists applying for a permit to expect processing times of at least 90 days for most marine mammal permits with an additional 135 days for permits affecting endangered species. However, some permits have been subject to greater delays. NMFS currently advises scientists to allow at least 6 months for processing a permit, longer for research involving endangered species. In the cases of my and Kraus' permits, it appears that last minute complaints by a fringe extremist could trigger a "public controversy" condition requiring exhaustive environmental assessments. Given these precedents, I consider that only permits backed by environmental analyses acceptable under NEPA are solid enough to protect research from nuisance lawsuits. My understanding is that it typically takes several months and $50,000–$100,000 to produce an Environmental Assessment, and $500,000–$1,000,000 and 1–2 years to produce an Environmental Impact Statement. Due to the increasing number of scientific research permits, and the renewed emphasis on NEPA analysis, some permit applications may be delayed much beyond 6 months, with dramatic increases in the burden on the Permit Division and on the applicants. I can personally attest to the heroic efforts of the staff of the Permit Division to cope with this disastrous situation, but the Division requires additional support and staff to keep the permitting process afloat.

Congress has in the past few years taken strong steps to fund research to help resolve urgent conservation problems such as declining populations of Steller sea lions, or the threat of extinction for the North Atlantic right whale, and I applaud these actions. Yet both of these research efforts were delayed by more than a year because of delays in the permitting process for scientific research. Recent litigation has highlighted the importance of adequate NEPA analysis in order to issue legally defensible permits. If Congress wants to support critically needed conservation research, it is not enough to fund the science. Congress will also have to authorize significant increases in funding to the Permit Division.

The time required to obtain a research permit has swelled from 3 months to 6 months to 21 months and counting. A very important change suggested by the NRC would be for Congress to specify a fixed maximum time for NMFS to process permits and authorizations. The 1994 NRC report suggested 10 days for initial processing, 30 days for the public comment period, and 10 days to issue or deny the permit. The Permit Division used to use a more liberal 30 days for initial review, 30 days for the public comment period and a concurrent 45 days for review by the Marine Mammal Commission, and 30 days to issue or deny the permit. This totals to 105 days. *I urge Congress to follow the recommendation of the NRC and set deadlines of 3–4 months for issuing a permit for scientific research*

The failure of NMFS to prevail in recent challenges to their attempts to exempt the permitting process from further environmental review under NEPA suggests the need for Environmental Assessments or Environmental Impact Statements for each activity that may be permitted or authorized. I cannot imagine that even a newly invigorated Permit Office could perform these analyses for every project, although there is considerable overlap between the permitting process under MMPA and the environmental analyses under NEPA. Given how similar the two processes are, perhaps Congress could specify the categorical exclusion of these permits under the MMPA. Otherwise, the MMPA or regulations might specify programmatic environmental analyses of specific research procedures, such as aerial or vessel survey, tagging, biopsy sampling, sound playback, etc. As I discuss later in my testimony, these kinds of programmatic environmental analyses are urgently needed for setting regulatory priorities not just for research, but for all incidental harassment.

The only way for the permitting process to proceed in a timely fashion given the requirements for environmental analyses under NEPA will be for the Permit Division to conduct programmatic environmental analyses for most typical research activities well before applicants request a permit. This additional workload must be achieved while the ongoing flow of permit applications is expedited. If NMFS is to issue timely and legally defensible permits, the permit division and other supporting divisions in the Office of Protected Resources will need additional program staff, with specialists in many areas such as environmental law, NEPA, marine mammal population biology, acoustics, animal health and welfare. Congress will also have to authorize significant increases in funding for the Office of Protected Resources to

hire contract personnel or to outsource the analyses required under NEPA and the ESA.

Ironically, it appears that the more serious the conservation problem addressed by a research project, the more likely the project is to be attacked by extremists and delayed or cancelled. One side effect of the permit process is that it personalizes a project in the name of a scientist. When a ship hits and kills a whale, when dolphins die in fishing nets, when a sea turtle is killed in an underwater explosion, the impact is no-fault and impersonal. But when a scientist applies personally for a permit to help solve these problems, he or she is front and center in a very public process. This makes the scientist an all too easy target for uninformed emotional attacks against the bigger problem. The "Tyack permit" is the subject of misinformation in websites from Australia to the U.K.

Some animal rights groups have specialized in attacking biological research; it has become all too easy for less scrupulous groups to move from attacking suffering and pain induced by experiments in captive animals, to raise funds by misrepresenting research directed at helping to protect wild animals from serious threats. Activists have actually tried to sabotage some conservation biology projects with threats of violence and destruction of property. It may reduce the attractiveness of these cynical *ad hominem* attacks if research institutions or consortia were to apply for general authorizations for different kinds of research, much as other activities that may "take" marine mammals are authorized.[1]

One suggestion for reducing the regulatory burden on scientific research involves including scientific research under the definition of harassment for military readiness. This is not helpful for research on marine mammals, and could create new problems for marine mammalogists. The U.S. Office of Naval Research is the primary funding agency for basic marine mammal research in the U.S. In spite of the excellent reputation of ONR as a science agency, the location of this agency in the Navy has led to controversy about whether the Navy biases the research effort or compromises the integrity of the scientists it funds. Fringe groups have even tried to drum up support by conjuring up conspiracy theories claiming that critical conservation biology projects are secret Navy projects to target marine mammals. If Congress were to change the wording of the MMPA to lump scientific research under military activities, this would increase concern about the relationship between the military and marine mammal research, and could accelerate the attacks by anti-research animal rights groups.

I must emphasize that many of the most serious problems with marine mammal research permits have not been MMPA problems as much as NEPA problems. Changing the definition of harassment will not affect the need for marine mammal researchers to obtain permits for their scientific research. Whatever the definition of harassment, I would apply for a permit for my research on marine mammals. Most scientific journals require permits as a condition of publication. The problems I face as a scientist involve the uncertain delays of the permitting process, and the vulnerability of the permits to procedural challenges. As I mentioned above, the Office of Protected Resources will require a considerable injection of funds and highly skilled personnel to be able to issue permits in a timely fashion while overseeing the timely production of the NEPA documentation required to back up research permits.

Suggested unified procedure for authorizing incidental takes under the MMPA

Congress today is attempting to fix demonstrated problems with authorization under the MMPA of incidental takes, especially harassment takes. One way to deal with this problem is to tailor special exemptions for each special interest powerful enough to get the attention of Congress. This process has created a complex tangle of different authorizations for taking marine mammals under the MMPA. The basic goals of the Act clearly have not been well served by such different standards for regulating takes for different activities. As the NRC said in 1994, "it is difficult to understand applying different, and less stringent, rules to activities that kill marine mammals than to activities that are known to benefit them or to have negligible effects on them." Furthermore, if Congress restricts this year's solution to military

[1] A problem with the language of the MMPA involves the use of the word "take" to cover the potential for an activity to cause slight and temporary changes in behavior. In this age of the Internet, it is quite easy for people all over the world to hear of a permit allowing thousands of "takes" of marine mammals. It is difficult for people from many countries to find it credible that the U.S. would regulate the potential for any change in behavior, so it can easily appear that this permit allows "taking" in the normal English sense, which sounds quite drastic. I urge the language of the permitting process be changed to use "take" for lethal take, "injury" for level A harassment, and "disrupt" or "disruption" for level B harassment.

readiness, next year they will be likely to have to respond to similar needs of some other group such as the seismic or shipping industries. I believe that it would be much better if Congress rejects the special exemption approach, and instead corrects the deficiencies in the MMPA so that one or two simple regulatory processes for authorizing incidental takes could be applied evenly to all seafaring activities. These processes should be designed to focus regulatory effort on situations of potential adverse impacts while minimizing the regulatory burden for activities with negligible effect. If a streamlined and more inclusive authorization process were accompanied by better monitoring and reporting requirements, then we would be in a much better position to identify and devote scarce regulatory resources to situations where marine mammals are most at risk from human activities.

Please allow me to sketch an outline of such an approach based upon suggestions from the 1994 and 2000 NRC reports on Marine Mammals and Low-frequency Sound. These reports approve of the amendments to the MMPA that were adopted in 1994 regarding taking of marine mammals incidental to commercial fishing. The incidental take provisions of the MMPA for commercial fisheries require determination of whether the incidental mortality and serious injury from commercial fisheries will or will not have a negligible impact on marine mammal stocks. Fisheries are categorized as to whether they have frequent, occasional, or remote likelihood of causing mortality or serious injury, and each fishery receives an authorization for incidental takes subject to conditions. As long as a fisher registers with this authorization process, complies with the conditions, and reports any takes, s/he is exempt from the prohibition against taking.

This regime for regulating fishery takes that may kill animals has been quite successful in highlighting situations where populations are threatened by fishing. Fishers in low impact fisheries have a simple and streamlined regulatory process that protects them from prosecution in case of an unlikely accident, and regulation ramps up corresponding to the threat, up to closing down fisheries that threaten the survival of marine mammal populations. The 1994 National Academy Report on Low-frequency Sound and Marine Mammals approves of the way this regime sets priorities for regulation:

> The proposed regime is designed to redirect regulation to focus on human activities with the largest impact on marine mammal populations, scaling the extent of regulation to the risk the activity poses to populations. (p 35)

However, the reports highlight two flaws in this approach: the regime ignores effects of harassment, and is not systematically organized to include takes such as vessel collision, explosions, etc.

The effect of MMPA section 118 has been to exempt fisheries from the prohibition on harassing marine mammals. The solution to this problem and to the imbalance in regulation of harassment is to develop a process to tier all sea-faring activities into categories for potential harassment takes of negligible impact, possible impact, and high probability of impact. Each kind of sea-faring activity that might take marine mammals by harassment should be required to consult with NMFS to perform an environmental assessment to evaluate the potential for impact. This kind of environmental assessment is already required under NEPA and many recent court cases have shown that NMFS and sea-faring activities must conduct additional environmental assessments. I believe that in the current climate, even harmless activities are vulnerable to legal challenge unless covered by this kind of NEPA analysis and MMPA authorization. There should be a simple streamlined process for authorizing low impact activities, with increased regulation scaling with increased probability of impact. A general authorization process is essential for activities that may affect the behavior of marine mammals, but that would have negligible impacts. Activities that are not eligible for this general authorization would need to go through an incidental take authorization process on a case-by-case basis. I urge Congress to require a consultation process to allow NMFS to tier activities by expected impact with a streamlined process for general authorization of activities with negligible impact and a requirement for regulatory effort to be directed to cases with the highest expected adverse impact.

The regime for regulating lethal takes or serious injury under section 118 of the MMPA has a flaw that may prove fatal to marine mammal populations, like right whales, where significant incidental mortality stems from activities other than fishing. The solution to this problem suggested by the NRC 2000 report is to broaden this regime to include other activities that might kill or seriously injure marine mammals. Obvious examples include vessel collision, underwater explosions, and spills of toxic compounds. Section 118 of the MMPA includes a comprehensive program to monitor takes from fisheries, but there is no such program to guarantee that stock assessments accurately estimate mortality from non-fishery activities. If

mortality caused by these non-fishing activities is not included in the PBR regime, then the regime will not work properly to protect marine mammal populations.

The MMPA as currently written specifies a process to reduce takes from fisheries whose lethal take exceeds PBR, but it is silent as to how to regulate incidental lethal takes from activities other than fishing. If vessels strike and kill a whale for example, should this be subtracted from the PBR? Or should these non-fishing activities be incorporated into a process for allocating takes? A similar situation may hold with beaked whales. About 10 beaked whales were regularly killed off the U.S. Atlantic EEZ in a pelagic drift gill net fishery. This was listed as a strategic stock because of uncertainty about the stock size relative to fishery-related mortality. This fishery has now been permanently closed. However, a correlation has recently been found between beaked whale strandings and naval maneuvers involving active sonars. The 2002 NMFS Stock Assessment for these beaked whales states "This is a strategic stock because of uncertainty regarding stock size and evidence of human induced mortality and serious injury associated with acoustic activities." If there are situations where non-fishery takes may be as significant as takes by fisheries, the MMPA must be modified to clarify how to regulate all lethal takes and serious injury, whether from fisheries or other sources.

The process for general authorizations of user groups could be similar for harassment or lethal takes. I suggest that different user groups that may take marine mammals could either voluntarily form together or be designated by NMFS. The list of user groups must include all activities that may take marine mammals. Either the user groups or NMFS should be required to prepare a Programmatic Environmental Impact Statement, an Environmental Assessment, or some simpler form of analysis depending upon NEPA criteria, including whether takes, including harassment takes, were anticipated to be frequent, occasional, or occur with a remote likelihood. After this stage, some activities might be judged so low risk that they could apply under a general authorization with simple reporting requirements. For activities where the takes are judged to have the potential for higher impact, each user group could apply for incidental take authorization similar to those currently in the MMPA, or to that used now by commercial fisheries, but including takes by harassment. Each user in a high impact activity would be required to evaluate the potential impact of each use, taking into account the animals in the specific areas and seasons of operation. All users should be required to report any takes, including level A or B harassment takes, with strict requirements for prompt and complete reporting. For activities that might cause harassment takes beyond the range of detection of the vessel, a monitoring program could be established to study animals at different ranges from the activity in order to better estimate the number of harassment takes.

The PBR process limits lethal takes to a number small enough not to threaten the population. It is more difficult to set a limit on harassment takes, since these may vary greatly in impact, and since the effect on population growth may be difficult to predict. Ultimately, the significance to the population of any take is the effect on the demography of the population, the ability of the population to grow or remain a healthy size. I strongly encourage Congress to adopt wording requiring NMFS to account for harassment takes conservatively in terms of demographic effects on growth, survival or reproduction. This is currently a challenging scientific problem, but the correct wording would stimulate the appropriate science, while focusing attention on the critical issue of keeping marine mammal populations healthy. The criteria do need to acknowledge our ignorance of the scope of harassment, and our ignorance of many of the effects harassment may have on individuals and populations. If we wait until the population has measurable declines, it is too late. Therefore it is important to include indicators of adverse impact in the criteria. These indicators may be physiological, behavioral, or ecological, but must be linked to potential to affect demography.

As I discuss more fully in the last section of my testimony, the best way to do this is to define harassment in terms of biological significance of the take. For the purposes of initiating a regime to regulate harassment takes before we know the precise effect of an activity on the population, NMFS could start by requiring complete and accurate reporting of all potential takes, including any disruption of behavior. The inclusion of any disruption of behavior should not be interpreted to signify that all of these constitute "takes" under the MMPA. Rather, accurate reporting of behavioral disruption could be used to help identify what exposures pose a risk of adverse impact.

Ultimately a demographic accounting of harassment takes would require population modeling that relates the dosage of exposure to harassment to population parameters. There has been great progress in this kind of population modeling in the past decade. However, right now the critical analyses could not be performed for

harassment takes because we know so little about exposures of marine mammals to harassment. Some mechanism to improve the accuracy of reporting and estimating harassment takes must be added to the regime. The PBR process has forced NMFS to sharpen its stock assessments for marine mammals, including summarizing all known lethal takes. A critical aspect of the PBR regime is that it exempts registered fishers from the prohibition on taking as long as they accurately and fully report any takes. A similar clause for all vessels that may be involved in harassment would ultimately give scientists the data needed to regulate harassment in terms of biological significance of impacts to populations. As in the terms of permits for scientific research, the user should report any observed disruption of behavior, but the regulations should be clear that not all of these will ultimately be considered "takes" by harassment. A timely reporting requirement may also make it easier to prosecute cases of intentional harassment, as failure to report would violate the terms of the authorization.

This kind of program would allow NMFS to identify situations where

- A stock was at risk from a particularly high number of takes.
- An area or activity caused a high number of takes for a variety of species.
- There were particular hot spots of takes.
- The cumulative takes pose a risk to the population

Where the sum of takes, lethal, injury, or harassment, pose a risk to a population, this regime should require something like the take reduction plans used to reduce the problem of fisheries takes. This kind of regulatory regime would reduce the burden on activities that pose little risk, while focusing attention on species, areas, or activities that pose the greatest risk to the most endangered populations.

Some may be concerned that the regulatory process I sketch out would lead to reduced protection. It would certainly streamline the regulatory process and make it more predictable for most activities, but I agree with the National Academy (2000) report on Marine Mammals and Low-frequency Noise that such a change would, if done correctly, increase protection from the status quo. The current MMPA has unbalanced criteria for authorization, allowing some fisheries to kill animals with no requirement beyond reporting, while having no procedure available to other activities to authorize more than a small number of insignificant harassment takes. This does not meet the conservation goals of the Act.

Suggested rewording of incidental take authorization for effects of noise

While I believe there is an opportunity to improve the MMPA by reducing the maze of take authorizations, this may not be possible to achieve this year. If Congress cannot achieve a common mechanism for authorizing incidental takes, I would advocate simple changes to the existing incidental take authorizations in sections 101.a.5.A and 101.a.5.D that I believe would make them appropriate for regulating acoustic impacts. When the MMPA was first written, it emphasized takes in commercial fisheries. Certainly no one at that time was thinking about whether the regulatory process would work for issues such as incidental harassment takes resulting from unintentional exposure to noise. Nor was there much experience with issues under NEPA of whether the impacts of entire activities needed to be evaluated together, or whether it was better to authorize each time a "take" was possible.

Since the MMPA was passed, many studies have demonstrated that marine mammals respond to ships, dredging, icebreaking and construction, and sound sources such as pingers, air guns, and sonars. Most of these sound sources are currently unregulated simply because NMFS chooses not to enforce the prohibition against taking marine mammals by harassment. I doubt that many of these activities could find a regulatory procedure under the current wording of the Marine Mammal Protection Act that would allow activities with negligible impact while controlling those that might have an adverse impact. As has been pointed out by each of the three National Academy reports on this topic, the dominant source of manmade noise in the ocean is the propulsion sounds from ships. Yet this has not been regulated by NMFS. As the National Academy 2000 report Marine Mammals and Low-frequency Sound put it:

> If the current interpretation of the law for level B harassment (detectable changes in behavior) were applied to shipping as strenuously as it is applied to scientific and naval activities, the result would be crippling regulation of nearly every motorized vessel operating in U.S. waters. (p. 69)

One response to this conundrum is for each activity to seek special exemptions if their activities become targets of regulation. However, the National Academy 1994 report Low-Frequency Sound and Marine Mammals discouraged that approach:

> "However, it seems unreasonable that an exemption from the "take" prohibitions of the MMPA should be available for some human activities, including some that kill marine mammals, without being available for other human activities whose goal may include the acquisition of information of potential value for the conservation of marine mammals." (p. 38)

The first two reports of the National Academy of Sciences on Marine Mammals and Low Frequency Sound specifically suggest a broader solution to this problem: removing the requirements for small numbers of takes, while retaining a criterion of negligible impact:

> Reword the incidental take authorization to delete references to "small" numbers of marine mammals, provided the effects are negligible. (p. 39)
>
> Low frequency Sound and Marine Mammals (1994)
>
> In addition to making the suggested change in the level B harassment definition, it would be desirable to remove the phrase "of small number" from MMPA section 1371(a)(5)(D)(i). If such a change is not made, it is conceivable under the current MMPA language there would be two tests for determining takes by harassment, small numbers first, and if that test were met, negligible impact from that take of small numbers. The suggested change would prevent the denial of research permits that might insignificantly harass large numbers of animals and would leave the "negligible impact" test intact. (p. 71)
>
> Marine Mammals and Low-frequency Sound (2000)

My understanding of the judge's ruling in the legal challenge to operation of the SURTASS LFA sonar, NRDC v Evans, is that the judge ruled against the interpretation followed by NMFS that "small" can be interpreted in terms of population size, and exactly following the fears of the National Academy panel, ruled that the current MMPA language does require both negligible impact and small numbers, where the meaning of the word small could not be interpreted in terms of size and status of populations.

The restriction in the MMPA authorizations for incidental takes to "a specified geographical region" may also rule out this authorization process for most impacts of noise. If "specified geographical region" is taken to mean areas small enough to involve the same assemblage of species and oceanographic conditions, the requirements of the incidental take authorizations would be incompatible with the NEPA requirement to consider all possible uses of a system. Many sound sources are on a large number of vessels, each of which may cross the ocean in weeks. Many marine mammals also migrate thousands of miles through very different habitats. This makes it difficult to specify a geographical region for a whale that may be in the Caribbean one day, and off New England a few weeks later. Different marine mammal populations have boundaries that differ according to the ecology and migratory patterns of the species. This makes it impossible to identify a unique region that is homogeneous for all marine mammals, much less other aspects of the marine ecosystem. If the wording specifying a geographical region is to be reconciled with the potential numbers and movements of both the animals and the noise sources, then the region must be specified in terms of the scope of the activity, not homogeneity of the ecosystem.

The propulsion sounds of ships elevate the ambient noise over the world's oceans, and this global impact is likely to reduce the ability of whales to detect calls at a distance. I see no process by which such takes could be authorized under the current wording of the MMPA. Depth sounders and fish finders have sounds that do not carry as far, but they are used by tens of thousands of vessels. These sounds have the potential to disturb marine mammals, and therefore may take animals by harassment, but did Congress intend to require authorization for each user? How far could a vessel go before its takes move out of the "specified geographical region?" Oceanographic research, much of which uses motorized vessels and uses sound as a tool to explore the ocean, also has a global scope, and may be difficult if not impossible to authorize under the current regulatory procedures.

I urge the Senate to change the wording of the incidental take provisions of the MMPA to remove the conditions of small numbers and specified geographical region. I believe that as long as a sharp focus is maintained on the issue of negligible impact, these changes would make the process work for effects of noise on marine mammals, while still protecting marine mammal populations from adverse impacts. Since millions of sound sources such as depth sounders and the propulsion noises of every motorized vessel could cause harassment takes under the current definition, I believe that it will be essential for the process to authorize general activities, rather than individual vessels or sound sources. This is incompatible with restricting the authorization to "small numbers," if this is taken literally to mean just a

few individuals, or "specified geographical region," if this is taken to mean small areas.

Definition of harassment

The current definition of level B harassment in the MMPA is:

> "has the potential to disturb a marine mammal or marine mammal stock in the wild by causing disruption of behavioral patterns, including, but not limited to, migration, breathing, nursing, breeding, feeding, or sheltering."

The 1994 NRC report on Low Frequency Sound and Marine Mammals succinctly reviewed the problem of how harassment has been interpreted under the MMPA:

> Logically, the term harassment would refer to a human action that causes an adverse effect on the well-being of an individual animal or (potentially) a population of animals. However, "the term 'harass' has been interpreted through practice to include any action that results in an observable change in the behavior of a marine mammal. . . ." (Swartz and Hofman, 1991). (p. 27)

The 1994 NRC report goes on to note that many minor and short-term behavioral responses of marine mammals to manmade stimuli are simply part of their normal behavioral repertoire. There is clearly a need for some standard of negligible effect, below which a change in behavior is not considered harassment.

The change in the definition of level B harassment proposed by the Administration and in HR 1835 is:

> "disturbs or is likely to disturb a marine mammal or marine mammal stock in the wild by causing disruption of natural behavior patterns, including, but not limited to, migration, surfacing, nursing, breeding, feeding, or sheltering, to a point where such behavioral patterns are abandoned or significantly altered."

As a biologist who has studied the behavior of marine mammals for more than 25 years, I find this wording confusing, and I do not see how it addresses the problem identified by the NRC. The last phrase added to the definition does add a criterion of significant alteration. However the point of the NRC reports was *biological* significance, a disruption that could have an adverse impact. My dictionary defines significant as "likely to have influence or effect." The addition of the word "significant' in the new definition therefore does not give the same standard as suggested by the NRC. As our techniques to study marine mammals have grown in sophistication and sensitivity, it is now possible to demonstrate statistically significant alerting or orienting responses that in my opinion fall well below the negligible impact standard.

I find the addition of the word "abandoned" particularly confusing in the new definition. It certainly makes sense to add a criterion for abandonment of critical habitat, but what does this wording mean for behavior patterns? A sperm whale or elephant seal can dive for an hour or more, but any marine mammal that abandons surfacing behavior cannot breathe. If it abandons surfacing for more than a few hours, it is certainly dead. If a sperm whale group is sheltering a young calf from a killer whale attack, even a momentary abandonment of the behavior could be lethal. Calves may be able to survive for days or weeks if their mother abandons nursing, and many whales could survive for years without feeding, but what is the time period implied by "abandon." My understanding of "abandon" is that it means a permanent change. By this definition, the "abandonment" wording turns level B harassment into a lethal take. Far from distinguishing negligible from potentially significant effects, it muddies the waters further.

Another problem with the use of the term "abandon" is that I take it to mean "giving up"—a 100 percent cessation of an activity. Yet since the definition of harassment also applies to stocks, this definition is not conservative enough for actions that may affect a large portion of a stock. For example, suppose an activity caused a 50 percent reduction in foraging rates in a majority of the population, or caused animals to be 50 percent as effective in finding a mate for breeding. Such reductions would not "alter" the form of the behavior, nor would they meet an abandonment criterion, but few populations could sustain such changes on a long-term basis.

If the Senate chooses to base harassment on the Administration definition, I urge that the definition drop the confusing use of the term "abandon," and that it define "significantly altered" in terms that parallel the usage of biological significance by the NRC.

I am also very concerned that the harassment definition proposed by the Administration retains the problematic old harassment definition for activities directed at marine mammals. This will retain the problematic definition for scientific research directed at marine mammals. While there is a process to permit such research, re-

taining the old definition for activities directed at marine mammals will hold scientific research that enhances the survival or recovery of species or stocks to a stricter standard than activities that harm marine mammals and do not help them. This does not make sense. The only case that in my opinion justifies a lower level of regulation involves takes for scientific research that enhances the survival or recovery of species or stocks. The proposed changes have the opposite effect.

NMFS has suggested retaining the old harassment definition for activities directed at marine mammals so that they can more easily prosecute cases against businesses such as those that charge people to take them to swim with wild dolphins. I believe that any of the proposed harassment definitions fit very well these cases where people intentionally pursue marine mammals and annoy them with clear disruption of behavioral patterns. It is particularly strange that NMFS suggests retaining the old broad definition, when a senior NMFS enforcement attorney stated to the 2002 Annual Meeting of the Marine Mammal Commission "the potential to disrupt behavioral patterns, at one level, it is a great definition because you go out, you know, we can get whatever we want because it is a very broad definition, but when you get down to the prosecution level, it is too broad." The real problem with harassment in my opinion is that NMFS has not shown the will to enforce the prohibition against harassment and to prosecute cases against growing industries based upon harassing marine mammals in the wild. It would be a tragedy for scientific research to be excluded from corrections in the definition of harassment as cover for NMFS' unwillingness to enforce the prohibition against harassment.

If there are problems with the definition of harassment, the solution is to reword the definition so that it can be used for all activities. I would like to take this opportunity to reiterate the suggestion of the National Academy of Sciences second report (2000) on Marine Mammals and Low Frequency Sound on the definition of level B harassment:

> "NMFS should promulgate uniform regulations based on their potential for a biologically significant impact on marine mammals. Thus, level B harassment should be redefined as follows:
>
> Level B—has the potential to disturb a marine mammal or marine mammal stock in the wild by causing meaningful disruption of biologically significant activities, including, but not limited to, migration, breeding, care of young, predator avoidance or defense, and feeding.
>
> The Committee suggests limiting the definition to functional categories of activity likely to influence survival or reproduction. Thus, the term "sheltering" that is included in the existing definition is both too vague and unmeasurable to be considered with these other functional categories." (p 69)

This definition was written by scientists and may require an additional definition of "meaningful disruption" to fit legal and legislative requirements. In particular, the definition of harassment must take into account our lack of knowledge about the ways in which behavioral changes may influence marine mammals. For example, prolonged or repeated harassment may lead to physiological changes that do not qualify as injury, but that may indicate the potential for adverse effects. Prolonged changes in behavior that are outside of the normal behavioral repertoire of a species may also trigger concern even if the effect on health is not immediately obvious. But if the definition of harassment is to be changed, it should be done so in a way that makes biological sense and that corrects the need for a negligible impact standard. I do not think that the changes proposed by the Administration and in HR 1835 for the definition of harassment succeed in this task. I urge the Senate to consider using the definition of harassment suggested by the National Research Council in any amendments to the MMPA.

Conclusion

Madam Chair, I sincerely appreciate your attention to this difficult and complex issue. There are real problems with current implementation of the MMPA in our changing environment. However, I am convinced that Congress and the responsible Federal agencies can make real progress to create permitting and authorization processes that are more predictable and efficient, while improving the protection for marine mammals from adverse impacts of human activities.

Thank you, and I look forward to your questions.

Senator SNOWE. Thank you.

Mr. Johnson.

STATEMENT OF CHARLES JOHNSON (TOMUNGNIQUE), EXECUTIVE DIRECTOR, ALASKA NANUUQ COMMISSION, ON BEHALF OF THE INDIGENOUS PEOPLES COUNCIL ON MARINE MAMMALS (IPCoMM)

Mr. JOHNSON. Thank you, Madam Chair. My real name is Tomungnique. I am the Executive Director of the Alaska Nanuuq Commission, but I am also here representing the Indigenous Peoples Council on Marine Mammals which was formed in 1994 to fight for co-management of marine mammals which coastal native people of Alaska depend heavily for subsistence.

IPCoMM also serves as a subcommittee for the Alaska Federation of Natives. Our dependence on marine mammals is more than food and the making of handicrafts. It is cultural, spiritual, and essential to our well-being. In 1994 when we first formed IPCoMM, we had a somewhat adversarial relationship with the management agencies. However, that has changed into a cooperative relationship as we have learned to trust each other.

During the last 2 years, IPCoMM has worked diligently with the U.S. Fish and Wildlife Service, the National Marine Fisheries Service, and the Marine Mammal Commission to develop mutually agreeable language that meets all of our needs for the reauthorization of MMPA. This language is contained in the administration bill that we strongly support. The key points that we have worked on will allow us to work with the agencies to develop regulations that allow management before depletion and methods for enforcement of these regulations. Alaska Natives want our descendants until at least the seventh generation to enjoy the use of marine mammals as we have. The native community in Alaska has expressed its strong support for the harvest management regulations of the administration bill as reflected in a resolution passed in the 2002 Alaska Federation of Natives convention.

The language in the administration bill also recognizes the political reality that Alaska Natives live in, but at the same time constrains disclaimer language that is intended to neither add to nor take away from or change that political situation. We have developed efficient statewide organizations for the co-management of marine mammals for subsistence purposes. We recognize that single village agreements for co-management is unrealistic and we have developed our own broad representative commissions.

From the Alaska Nanuuq Commission perspective, we would like to see a reorganization of the management of those species that Alaska Natives use for subsistence purposes. It makes no sense for seals to be managed by NMFS when polar bears are managed by Fish and Wildlife. NMFS has stated that co-management is not one of their priorities because they are constantly dealing with crisis situations. Seals, in particular ice seals, which make up 90 to 95 percent of polar bear diets, have little or no interaction with commercial fisheries. We feel it makes ecological sense for management of seals used for subsistence to be under the U.S. Fish and Wildlife Service where co-management would be more efficient. At our last meeting on July 10, IPCoMM also took this position that they would like to see a move of ice seal and harbor seal management to the Service.

Additionally, it has been very difficult to obtain a permit from NMFS to collect samples from harvested animals. The Alaska Native Harbor Seal Commission has been seeking a permit for several years and is now collecting samples under the University of Alaska permit. Obtaining a permit from the U.S. Fish and Wildlife Service is a very simple and streamlined process.

Alaska Natives have also developed a trust with the major environmental organizations who support our efforts to conserve our marine mammal resources for future generations. The progress we have made in working with them and the management agencies is reflected in the language regarding harvest management in the administration bill.

However, the administration bill took out two provisions that we feel are necessary. One would allow Alaska Natives to culturally exchange marine mammal products with native peoples of Canada, Greenland, and Russia, as we have traditionally done. Also taken out was the provision that allows Alaska Natives and natives of Canada, Greenland, and Russia to take in and out of Alaska our traditional clothing made of marine mammal products. We urge you to put this language back in. In particular, this will affect polar bear management.

Also missing in the administration language is the ban on the use of aircraft while hunting and the ban on the sale of gallbladders. We feel that these prohibitions are necessary for the conservation of marine mammals, in particular polar bears.

We thank you for this opportunity to make this statement.

[The prepared statement of Mr. Johnson follows:]

PREPARED STATEMENT OF CHARLES JOHNSON (TOMUNGNIQUE), EXECUTIVE DIRECTOR, ALASKA NANUUQ COMMISSION, ON BEHALF OF THE INDIGENOUS PEOPLES COUNCIL ON MARINE MAMMALS (IPCoMM)

Madame Chair, I am Tomungnique, Executive Director of the Alaska Nanuuq Commission, which represents the polar bear villages in Alaska on matters concerning the conservation of nanuuq, the polar bear. However you can call me Charles Johnson, which I am called in English.

IPCoMM, the Indigenous Peoples Council on Marine Mammals, was formed in 1994 to fight for co-management of marine mammals which coastal native people of Alaska heavily depend on for subsistence. IPCoMM also serves as a sub-committee of the Alaska Federation of Natives. Our dependence on marine mammals is more than for food and the making of handicrafts handicrafts, it is cultural, spiritual and essential to our well-being. In 1994 we sometimes had an adversarial relationship with the management agencies. That has changed into a cooperative relationship as we have learned to trust each other. IPCoMM represents most if not all of the Alaska Native marine mammal subsistence commissions.

During the last two plus years IPCoMM has worked diligently with the U.S. Fish and Wildlife Service, the National Marine Fisheries Service and the Marine Mammal Commission to develop mutually agreeable language that meets all of our needs for the reauthorization of the MMPA. This language is contained in the Administration bill that we strongly support. The key points that we have worked on will allow us to work with the agencies to develop regulations that allow management before depletion and methods for enforcement of these regulations. Alaska Natives want our descendents until at least the seventh generation to enjoy the use of marine mammals as we have. The Native community in Alaska has expressed its strong support for the harvest management provisions of the Administration's bill, as reflected in the 2002 AFN Resolution attached to my testimony.

The language in the Administration bill also recognizes the political reality that Alaska Natives live in, but at the same time contains disclaimer language that is intended to neither add to, or take away from or change that political situation. We have developed efficient state wide organizations for the co-management of marine mammals for subsistence purposes. We recognize that single village agreements for

co-management is unrealistic and have developed on our own these broad representative commissions.

From the Alaska Nanuuq Commission perspective we would like to see a reorganization of management of those species that Alaska Natives use for subsistence purposes. It makes no sense for seals to be in NMFS when polar bears are in Fish and Wildlife Service. NMFS has stated that co-management is not one of their priorities because they are constantly dealing with crises'. Seals, in particular ice seals, which make up 90–95 percent of polar bear diets have little or no interaction with commercial fisheries. We feel it makes ecological sense for management of seals used for subsistence to be under Fish and Wildlife, where co-management would be efficient.

Alaska Natives have also developed a trust with the major environmental organizations who support our efforts to conserve our marine resources for future generations. The progress we have made in working with them and the management agencies is reflected in the language regarding harvest management in the Administration bill.

However the Administration bill took out the provisions allowing Alaska Natives to culturally exchange marine mammal products with Native peoples of Canada, Greenland and Russia as we have traditionally. Also taken out was the provision that allows Alaska Natives and Natives of Canada, Greenland and Russia to take in and out of Alaska our traditional clothing made of marine mammal products, We urge you to put back in these provisions.

Also missing is the ban on the use of aircraft while hunting and a ban on the sale of ball bladders. We feel that these prohibitions are necessary for the conservation of marine mammals.

We urge you to consider our efforts while you contemplate reauthorization of MMPA. THANK YOU and I will answer any questions.

Senator SNOWE. Mr. Johnson, were those prohibitions removed from statute, concerning the use of aircraft and gallbladders?

Mr. JOHNSON. They were not removed. They were not in the statute.

Senator SNOWE. They were not in the statute.

Mr. JOHNSON. They are, however, in the language of the Polar Bear Treaty that we have negotiated with Russia. But the treaty only covers the polar bears in the Bering and Chukchi Seas and not in the Beaufort Sea. So we would like to see that language in the MMPA so it would be consistent all across Alaska.

Senator SNOWE. You made a recommendation that one agency should manage all the species.

Mr. JOHNSON. In particular, we would like to see ice seals and harbor seals moved to Fish and Wildlife because these are the primary species that we use for subsistence. But, however, for the Nanuuq Commission purposes, ice seals are the major diet for polar bears, and from our perspective, it does not make sense for them to be managed by another agency.

Senator SNOWE. I appreciate that. I thank you. We will look into those issues as well.

On the whole definition, again, these are difficult issues in terms of are we improving upon the definition or creating more problems. Now, you heard from the earlier panel, and those who seem to think that this is moving in the right direction by substantially changing the current legal definitions.

Do you think that if we had invested more money into research and allowed the scientific research to go forward, that we would have a better understanding of the impact of noise on marine mammals? For example, especially when it comes to low frequency active sonar, would these definitions be less troubling, or would they continue to be troubling or vexing in the permitting process? I know, Dr. Young, you feel that it is more the permitting procedures

rather than the definition, but you heard the testimony of the earlier panel. Some of those who are testifying with you recognize there should be some changes in the definitions. But if we had adequate research, an adequate scientific data base, do you think we would be in a better position today with these definitions or would it still require some change?

Dr. YOUNG. I think if we had adequate research, we would be in a better position. One of the questions that you asked earlier was should it reside with an agency to undertake that research. I think, Senator, one of the bills that you introduced several years ago, which was the Whale Conservation Fund, which recognized that there needed to be greater research for right whales and allowed the research to take place through the National Fish and Wildlife Federation administering funds and then that money could be disbursed through a competitive granting process—I think that is exactly the type of thing that we need to do, is to bring all the various sources of funding that may be out there and available for research under some type of agency or foundation or such that then can have a competitive granting process that has some oversight by a number of individuals that evaluate the grant. I think that is exactly what we need to do to improve the process in terms of scientific research.

We need to do a lot to improve the permitting process in general. As we have seen, as Dr. Tyack has said, it has increased from 3 months to 6 months to 23 months. We need better guidance for the applicants. We need better outreach. We need a more streamlined permitting process which may be both a combination of improvements within the process or surgical improvements within the statute related to the scientific permitting process.

But it stands to reason if we change the definition and we do not make the necessary changes to improve the implementation, then we are right back where we started where the scientists are unable to get their permits. So we need to look at both parts in conjunction because just changing the definition of harassment is not going to be sufficient.

As far as the definition of harassment, we are sympathetic to the problems that are associated with any act of torment, pursuit, annoyance. We understand that that creates a difficulty for enforcement and we support the change to the definition in the administration bill that refers to any act. But we believe that the Level B definition of harassment that the agency has put forward is problematic exactly for the reasons that Dr. Tyack said. To raise it to the level of abandonment is absurd. So that is why we believe that something along the lines of the NRC definition is more in keeping with the scientifically sound approach.

People can agree on what are biologically significant behaviors that you want to regulate and want to avoid changes or modification to those behaviors. Where we will probably end up debating is whether those behaviors are meaningfully disrupted, significantly altered because then that is a judgment call that is far more of a judgment call than people saying, yes, we recognize that migration, breeding, nursing are all biologically significant behaviors.

So again, something along the lines of the NRC definition we believe is more in keeping with the scientific recommendations that the NRC put forward. They are sound, scientific recommendations.

And then last, Senator, we believe that the directed provisions that are in the third part of the administration's proposal are not necessarily necessary if you include the definition or change the definition to mean any act and then pick up an NRC type definition, that that would be encompassed in there. We are sympathetic to what the agency was trying to achieve with that provision. We believe that directed acts such as feeding and swimming with animals in the wild should be prohibited and regulated to some extent in controlled situations. But we believe that the best approach would be to do it in a manner different than what they have proposed.

Senator SNOWE. Dr. Tyack, do you think the lack of scientific research and investments in research has impeded our ability in terms of the permitting process? Would it be improved substantially? How much do we need to do or make for investments, and how long would it take to get really certifiable data on which we could predicate some of these decisions?

Dr. TYACK. I do feel that the depth of ignorance was significantly worse 10, 15, 20 years ago. In fact, the Marine Mammal Commission issued a report on the issue of harassment around 1991, which specifically stated that any detectable change in behavior had in practice been determined to be harassment. That was because our techniques to study behavior were so weak that the idea was that if you saw anything, it probably was significant. Now we have much more sensitive tools for studying the behavior of animals and inferring their significance, and that is part of what raises this issue now for requiring the change in the definition. So I think that the current motion in the science has in part triggered the change.

I think that there are two areas that need significant effort. One is the connection between exposure to incidental effects like sound or chemical compounds that may be toxic and their effects on animals, just like toxicologists do. This needs to be freed from the obsession of is any exposure going to cause such an impact that you have to control it rigidly because that is what is blocking the science right now.

I think it is important to establish knowing our ignorance, a de minimis standard, to allow the research to do a better job at establishing exposure to the physiological or behavioral reaction of an individual and, equally important, the connection between that response in the individual and the effects on populations. That area, the link between effects on individuals and effects on populations, we perhaps know even less about.

I think one area that would be very useful for Congress to look at is framing terms now that recognize our ignorance but set the appropriate scientific criteria so that the science can match it. There has been amazing progress in the past 5 to 10 years, blocked primarily by regulatory and legal problems, not technical or practical issues of going to sea. I think that if Congress succeeded in setting the correct scientific goals for protecting individuals and populations and the science were freed from some of these regulatory and legal obstacles, it would make very rapid progress.

Senator SNOWE. Admiral West, do you believe that the potential change in definitions should be more consistent with the National Research Council than the administration's?

Admiral WEST. That is correct. We were concerned about addition of a couple of terms that may have made a little more ambiguity in the definition which is part of our problem now I think.

Senator SNOWE. So do you think that the administration's is more ambiguous?

Admiral WEST. The two areas that I think we specifically mentioned were the directed species and the abandonment that Peter talked about. It would be very hard to define and some more hoops to jump through that causes some of the ambiguity that we have right now.

Senator SNOWE. Dr. Tyack, you were referring to the idea of requiring all marine activities to be governed by the act. Could you give us some ideas? Are you talking about shipping? Are you talking about those type of activities? Are you talking about non-commercial fishermen?

Dr. TYACK. Yes. My general feeling is that right now the overwhelming majority of takes are ignored and nonregulated, and the regulatory structure is so awkward and so difficult that neither the regulators nor the industry want to touch coming under the act. I think this is an important fact to recognize about the real world at sea right now. I think that if there were a combination of a requirement for every seafaring activity that might be taking animals to do a consultation with some kind of programmatic environmental assessment, along with a general authorization, so that if you are having negligible impact, that you have an authorization and you do not have the delays of permitting or the unpredictable threats of lawsuit, that that combination would be very helpful.

I think it also would be important for the congressional language to require the agencies to target their regulatory effort not to the easy problems but to the cases where human activities actually are causing adverse impacts on marine mammals.

Senator SNOWE. Admiral West, you heard Admiral Moore speak earlier, that the Navy had invested money in research, especially in developing the mitigation plan. Do you think that there has been adequate research done on the issue of low frequency active sonar? I would like the others on the panel to comment as well. Is there sufficient data to date that would identify any effects of this activity on marine mammals?

Admiral WEST. I cannot speak specifically to the LFA because I have not had access to that particular data. I know that there is data within the Navy on lots of marine acoustic experiments.

I can say as a general statement, though, that we do not have enough data. I think all the decisions we make in this particular area need to be based on scientific data. It may take some while to do that, but I think we owe it not only to our country but to the marine mammals to do that.

There is a lot of data in the Navy. There is a lot of data outside the Navy. There is data in industry. I think if we had some mechanism to bring it all together and collate it, it would be a good start.

Senator SNOWE. Dr. Young? You heard Admiral Moore and we know the difficulties the Navy has encountered in implementing its

program. Ultimately you are right, that they received the permits, but it has been such a difficult process. It has the net effect of denying them the permit in many ways. So the question is how can we address this issue and accommodate its interests? This is important especially because it addresses our national readiness and our ability to do what we need to do with respect to detecting submarines.

Dr. YOUNG. I think the problem that we face is this particular issue of the impacts of acoustics on marine mammals relatively little is known. It is still in its infancy, so to speak. There are only a few experts in the area, Dr. Tyack being one of them. And we really do not know the impacts on the various species of marine mammals. In some cases we are still learning how marine mammals hear, what frequencies they hear at, what are they sensitive to, what levels, what sound levels. So it is very difficult for us to establish mitigation measures that are going to be protective of marine mammals that still allow military readiness activities to go forward. It gets right back again to the need for additional research.

I will let Dr. Tyack speak to the LFA, but we know that there are certain species, for example, like Dall's porpoise, harbor porpoise, beaked whales, that are susceptible under certain conditions to other forms of sonar, and we need to have the consultation process, the permitting process, and the mitigation measures, and the science all in line to be protective of the animals while still allowing these forms of acoustic sonars to go forward.

Senator SNOWE. Under the current circumstance for the Navy, what would you recommend? If we were just to adopt the status quo essentially on the definitions with some minor alterations, what then would the Navy do? It is a problem.

Dr. YOUNG. Right. I think we need to continue the research, but we also need to revise mitigation measures that are effective. The research arguably on LFA was on a limited number of baleen whales and then I think one of the problems was we jumped from a limited use, not necessarily under real use scenarios, to let us use it throughout all the oceans of the world, a number of ships. Arguably that made a number of organizations uncomfortable and it brought about the lawsuit.

What we need to do is continue the science very aggressively but also have mitigation measures that err on the side the precaution especially in those cases where you may not have studied the effects of LFA on a particular species of marine mammals.

Senator SNOWE. I recall that the Admiral said that they had spent $10 million in one permitting process for environmental research to develop their mitigation plan. So I just think that we have to discern what is going to be the best approach to make this the very best approach for the conservation of our marine mammals, but at the same time making compatible uses that are important to this country and to those individual sectors. That is the problem here. I think it needs to be fixed. The question is to what extent so that we do not create other unforeseeable problems down the road. Our frustration with the lack of research essentially does not allow us to design changes in this legislation with confidence. That is the problem.

Dr. Tyack.

Dr. TYACK. If I may briefly discuss this. I was one of the scientists who, when I first heard about the low frequency active sonar system, was particularly concerned about behavioral impacts. The limited data that we had from oil industry noises on low frequency baleen whales suggested that in some settings they tried to avoid exposures at levels that were so low they would have been hundreds of miles away from where the sonar operated. And I and several other scientists and people from the National Marine Fisheries Service discussed these kinds of issues with the Navy, and the Navy called a halt to their operation of the sonar and made the ship available for a year of research. I was one of the scientists who was involved in this research project.

We held workshops to select the animals. You obviously in a year can only choose a few of the more than 100 marine mammals in only a few settings. In these workshops, the consensus was to focus on low frequency specialists like baleen whales because they are the ones that use the frequencies and are most sensitive to the frequencies this particular sonar uses. That is the main thing that is different about this sonar from all the other ones. It is not louder. It does not have very different signals otherwise. It has low frequency which carries a long way in the ocean. So the issue was what was the effect over large distances.

And we selected three different settings, feeding infant blue whales, migrating grey whales, and singing humpbacks on the breeding grounds, both because these were the settings we best understood and could do a quick study, but also things like the migrating grey whales was one of the toughest situations there was. That was a case where grey whales showed this kind of avoidance response to quite low levels of oil industry sounds.

The results of this study showed that in cases, for example, when the sonar was operated very close to shore in the migration corridor of the grey whales, you got pretty much the same response. But when it was moved off shore where the Navy has proposed to operate it, this response pretty much went away. And in cases like singing humpbacks, there were some cases where they seemed to stop singing but only for tens of minutes, something that is within the normal range of their behavior.

So from our perspective as scientists, given the restriction on operating the sonar off shore, and given the kind of changes we saw with humpbacks and what we knew of their normal behavior, we felt they did not come across as highly significant, show-stopping disruptions of behavior under the current language. However, in the recent court case, I think the judge has come to another conclusion.

So I think that would make one issue that we see here is the Navy did almost as much as you can imagine. They stopped using the system. They sponsored a very, very strong research program in the current setting. I think it is probably the largest research program any of us marine mammalogists have been involved in. It may not be a large logistic program for the Navy, but for marine mammal research, this was an extremely large program.

Then the results were used in close consultation with NMFS in order to come up with predictions between particularly what kind

of exposure leads to a take by harassment. This was quite conservative where we did not know where something was happening. There was quite a strongly ramping-up expectation of prediction of this kind of take. And even with that model, the total numbers of animals that came out of the model were not sufficient to cause NMFS as a regulatory agency to say it had a significant impact.

However, again, it bounced up against the small numbers criterion that in this conservative risk criterion, if it predicted you might have hundreds of dolphins within a large population taken, that to the judge was not a small number.

So I think that my personal take is that an NRC-like definition of harassment and modifying the incidental take authorizations to not have small numbers or carefully define it to mean negligible impact and being very careful about the definition of specified geographical area, those three things were the roadblocks legally for doing what I consider sort of a test case of the way one should go about looking at the impact where there are warning flags.

Senator SNOWE. I appreciate that. That is very helpful and I will certainly take some of those issues into consideration as well as that example. I appreciate that very much.

Mr. Johnson, I just want to ask you, are there any changes in the administration's definition that either help or hinder your commission members and subsistence use?

Mr. JOHNSON. Well, we have been aware of the seismic testing that the oil industry has done and the whaling folks have expressed some deep concern about the effects that that has had on migrating whales. We have not been working on that particular issue in the administration bill where we have been concentrating primarily on the harvest management regulations.

Senator SNOWE. I appreciate that. If you have any additional comments on it, I hope you will inform the Committee as well.

Mr. JOHNSON. Yes. I will send in some additional comments.

Senator SNOWE. I appreciate that.

I thank all of you. I wish I had more time to discuss these issues. I will be working and following up with many of you on some of the issues you raised. I really do appreciate it. It has been very thoughtful testimony and very important and crucial as we go forward to see how best we can proceed on some of these key issues. So again, I thank you.

The hearing stands adjourned.

[Whereupon, at 11:34 a.m., the hearing was adjourned.]

A P P E N D I X

PREPARED STATEMENT OF HON. JOHN F. KERRY, U.S. SENATOR FROM MASSACHUSETTS

Madame Chairwoman, thank you for holding this important hearing on the Marine Mammal Protection Act (MMPA), an Act that is in need of our attention. The MMPA provides the cornerstone for protection of marine mammals in the U.S., and is a model for other countries.

The MMPA celebrated its 30th anniversary last year. Prior to its enactment, many species of marine mammals were on the brink of extinction. Commercial whaling was still commonplace in 1972 and an estimated 400,000 dolphins a year were being killed in the Eastern tropical tuna fishery. The MMPA addressed these and other threats to marine mammals, and since its enactment, many species have recovered. However, there is still more work to be done. The Act has not yet been fully implemented, and not all marine species are at the healthy levels the Act called for 30 years ago. I am particularly familiar with the example of the North Atlantic right whales, one of the most endangered species of marine mammals in the world, with a population of approximately 300 individuals.

In addition, a wide variety of stakeholders have raised concerns with respect to the effective application of the MMPA, highlighting the need for possible changes to the Act. The Department of Defense (DOD) has raised concerns with respect to the impact of the MMPA on military readiness, and I take their concerns very seriously. DOD has proposed changes to core aspects of the statute, including the current definition of "harassment" for "takings" of marine mammals under the MMPA. We need to consider these concerns and proposals carefully, and examine what changes to the MMPA might be warranted, without weakening the MMPA, nor compromising our military preparedness. I for one believe that we can have the strongest military force in the world and the best conservation laws of any country.

Many stakeholders, particularly members of the scientific community, have also highlighted the need for improvements to the permitting process. These issues must be addressed comprehensively through improvements to MMPA implementation, and perhaps through targeted changes to the statute, not just for some but for all stakeholders, to assure that such changes are comprehensive and effective.

While I acknowledge the need for changes and clarifications in the MMPA and its regulations, I am wary of undermining this well-established Act. This has been a very effective tool in marine conservation and management and I look forward to working with my colleagues on the Committee and with others to seek improvements in a thoughtful and well-informed manner.

PREPARED STATEMENT OF HON. PORTER GOSS

Good morning, Madame Chairwoman and members of the Subcommittee. I appreciate the opportunity to appear before you today as you begin your consideration of the reauthorization of the Marine Mammal Protection Act.

I have devoted much of my public life to marine conservation—as have many of you. I continue to hold the conservation of our shoreline areas and our marine environment as a compelling public trust. It is in this light that I appear here today and offer my recommendations. The MMPA is not working as it should in Florida, and it needs fixing. As you proceed with reauthorization, I urge you to take a hard look at our experience, extract the lessons from it, and make the necessary changes to improve the statutory machinery.

A major issue in Florida is the continued conservation of the Florida manatee, which is protected by both the Endangered Species Act and the Marine Mammal Protection Act. Recent events in Florida concerning manatee protection are at best a mixed blessing. On the positive side, the considerable and sustained efforts by the Florida Fish and Wildlife Conservation Commission (FFWLCC) and local jurisdictions to establish comprehensive manatee protection plans appear to be working

well. Manatee deaths or injuries from boating-related activities are decreasing dramatically.

On the negative side, on-going litigation and the various Federal rulemakings resulting from it are a source of continuing major problems. The recent efforts by the FWS to enact incidental take authorization stopped in a complete dead end street, whereby the Service was unable to conclude that such an authorization would satisfy the extremely strict requirements of the MMPA that the activities authorized by the rule would have *no effect* on manatee populations whatsoever.

More recently, the FWS has proposed enactment of sweeping new speed zones in SW Florida in the Caloosahatchee River that are overbroad in their reach. While some new speed zones are probably needed, they should be implemented in coordination with the extensive scientific and technical work of the FFWLCC now underway that is evaluating the need for new speed zones throughout the area. Decisions on the federal speed zones should not made without the benefit of this evaluation.

What we have learned over the last several years as a result of these activities is:

- First, the scope of authority under the MMPA to authorize incidental take of marine mammals by rulemaking is subject to standards that are extremely strict and far too inflexible. The Act needs to be changed to introduce the ability for local solutions to be crafted, along the lines allowed under the ESA.
- Second, the overlap of the MMPA and the ESA is causing confusion and impeding progress. Presently the MMPA is the far stricter of the two statutes, and the application of the MMPA take prohibitions renders the section 7 consultation process under the ESA very difficult. Typical consultations under the ESA anticipate some level of incidental take and authorize it by way of incidental take statements in biological opinions. In the absence of a rulemaking under the MMPA, these incidental take statements have no effect. Hence, the MMPA trumps one of the major tools under the ESA to allow otherwise permissible activities to proceed.
- Third, the conservation efforts under both statutes must stimulate a better opportunity for state and local entities to enact conservation initiatives in lieu of Federal controls. The State of Florida has done and is doing far more on-the-ground conservation for the Florida manatee than the FWS. The Service simply will not ever have the resources to devote to the issue that the state is able and willing to bring to bear. In this circumstance, both statutes must provide effective and meaningful opportunities for states to assume primary responsibility for the conservation mission without the redundancy or the bureaucratic baggage of the very cumbersome federal permitting regimes. They do not currently provide that opportunity.

I recognize that this Subcommittee does not have primary jurisdiction over the ESA or the activities of the FWS. However, it does have plenary authority over the MMPA, and as you take up the issue of reauthorization with the Senate Environment Committee, I wish to encourage you to take a very hard look at these issues.

My staff and I stand ready to review what has happened in Florida and how we think the reauthorization process can achieve some real improvements in the operation of an important marine environmental protection statute. Thank you again for the opportunity to begin this dialogue with you.

PREPARED STATEMENT OF COLLEEN M. CASTILLE, SECRETARY, DEPARTMENT OF COMMUNITY AFFAIRS, STATE OF FLORIDA

Thank you for providing the State of Florida, Department of Community Affairs (Department) the opportunity to provide comments on the reauthorization of the Marine Mammal Protection Act (MMPA or the "Act"). My responsibilities as Secretary of the Department of Community Affairs and experience as Florida Governor Jeb Bush's lead staff person on manatee protection issues afford me a unique perspective. Part of my responsibilities includes the continued review of the Act and the implementation and enforcement methods used by the U.S. Fish and Wildlife Service. The State of Florida appreciates the efforts of the U.S. Fish and Wildlife Service to protect manatees and supports the reauthorization of the MMPA, but with needed corrections and adjustments. These are necessary to address the fact that the MMPA, with regard to manatees, is duplicative and its interpretation and implementation have been problematic in Florida.

The MMPA is duplicative of the protections afforded the manatee under the Endangered Species Act (ESA), the Florida Endangered and Threatened Species Act, and, most importantly, the Florida Manatee Sanctuary Act. Under the Florida Man-

atee Sanctuary Act, Florida has created extensive manatee protection zones. Moreover, the ESA, with its recovery plans, is specifically designed to protect species such as the manatee and to authorize incidental take when necessary to allow otherwise lawful activities, such as boating, to take place under proper regulation. Instead of attempting to use portions of the ESA to implement sections of the MMPA, consideration should be given to exempting any marine mammal species from the incidental take requirements of the MMPA, if such species is listed under the Endangered Species Act and has a Recovery Plan. In such circumstances, the incidental take provisions of the Endangered Species Act would govern.

The MMPA establishes a moratorium, with certain exceptions, on the taking of marine mammals in U.S. waters by any person and by U.S. citizens in international waters. As currently drafted the MMPA can be interpreted to provide for a complete moratorium on docks, boat access facilities and other water related activities. In fact, as acknowledged in the *Record of Decision,* issued by the U.S. Fish and Wildlife Service, North Florida Field Office, regarding the revocation of proposed rulemaking (67 *Federal Register* 69078–69104, November 14, 2002) for the incidental, unintentional take of small numbers of Florida manatees, "[t]o date, there is no authorization for the incidental, unintentional death, injury, or harassment of Florida manatees caused by these otherwise legal activities [*i.e.,* operation of watercraft and watercraft access facilities]. Thus, there is a need to examine the issue of take of Florida manatees and determine whether the incidental, unintentional take of manatees may be authorized." The suggestion of the need to examine the issue of takes in Florida is based upon the historic assumption of a rational nexus between the permitting of docks and boat access facilities and manatee mortality. However, this historic assumption is not based in fact.

The State of Florida articulated its concerns about the proposed incidental take rule and worked in collaboration with the U.S. Fish and Wildlife Service and numerous stakeholders to resolve its concerns through a conflict resolution process. We commend the U.S. Fish and Wildlife Service for its willingness to continue to work with the State of Florida on this important issue. Additionally, the State of Florida is committed to the safety and future of manatees and will continue to work with its Federal partners in ensuring the success of the manatee population. We recommend a similar conflict resolution process be used to develop consensus regarding the proposed reauthorization of the MMPA.

In addition to the protections afforded above, through the growth management process, the state provides incentives for the use of boat facility siting plans. These plans, which must include provisions addressing manatee protection, are adopted into the county or municipal comprehensive plan—the local blueprint for growth. Further, over the past 3 years, the State of Florida has invested $4.5 million for manatee protection resulting in 75 more full-time enforcement officers. In total, twenty-two percent of the inshore waters of our state's most manatee-significant counties have now been designated as manatee protection zones. These efforts have been the most successful in reducing manatee deaths due to watercraft. The state's manatee population count has increased from a low of 750 in 1974 to 3,113 in 2003.

Further, the state, in conjunction with our Federal partners, continues to explore additional methods to protect the manatee. Efforts, such as winter-photo identification in the Ft. Myers and Tampa Bay areas and expanded photo-identification in southwest Florida, will aid in determining adult survival rate analyses. Methods to identify and quantify the proportion of females and calves in the waters of southwest Florida also should be explored. Creating an individual-based spatial simulation model to quantify the relative risk of alternatives, such as different speed zone arrangements or seasonal variations in manatee behavior and boating patters, will be extremely useful in exploring the effectiveness of management actions. Such measures, in conjunction with the protections afforded through the ESA, are more favorable to the future protection of the manatee than that afforded through the current interpretation and implementation of the MMPA.

The State of Florida is in a somewhat unique position in that there is an estimated 834,000 registered boaters supporting the Florida Marine Industry, which, in the year 2000, had a total statewide economic value of approximately $14 billion. The recreation and boating industry provides direct and indirect employment that equates to approximately 180,000 jobs in the state. It is anticipated that these figures will continue to grow as a direct result of the increase in population and the resulting growth of the state as a whole. Most importantly, boating is a healthy family activity that strengthens the fabric of families.

The uncertainty over whether incidental or unintentional takes will be allowed has the potential of having a deleterious effect on the state's economy—for example, the U.S. Fish and Wildlife Service estimated a 37 percent reduction in the number of permits for docks and boat access facilities as a result of its proposed incidental

take rule. Assuming a concomitant reduction in the marine industry in Florida would result in a loss of $5.2 billion and 67,000 jobs. Additional losses would occur as a result of reduced property values. This is especially so in the southern portion of the State. More directly, any specific limitation that would result in an automatic moratorium on future activity could have a catastrophic impact to the State's marine industry and the economic value associated therewith. Deferring manatee protection regulations to the ESA would help eliminate the duplication and other concerns associated with the MMPA.

Again, thank you for the opportunity to provide comments on the reauthorization of the MMPA. If I can be of further assistance, I would be happy to answer any questions you may have on the Administration's MMPA reauthorization bill or any other related matters.

PREPARED STATEMENT OF TERRANCE STEWART, CITY MANAGER, CAPE CORAL, FLORIDA

On behalf of the City of Cape Coral, Florida, I appreciate the opportunity to provide for the record a statement for consideration by the Committee concerning the reauthorization of the Marine Mammal Protection Act. My name is Terrance Stewart and I am the City Manager for the City of Cape Coral.

Manatee protection is an important issue to the State of Florida, but is especially important to the City of Cape Coral. Our experiences in dealing with a series of new manatee protective actions being taken by the Federal government have resulted in some suggestions we would like to offer the Committee as it considers reauthorizing the Marine Mammal Protection Act.

Cape Coral is located on a large peninsula in Southwestern Florida. The City is bordered by the Caloosahatchee River on the east and Matlacha Pass on the west. The City is built on 400 miles of freshwater, estuarine, and marine canals. The City is, quite literally, built around open and available access to coastal waterways. Our property values, our economic base, and our ability to continue growing as a city that can provide waterfront living to people of moderate means all depend on the City's unique waterfront access.

Because of the City's dependence on the marine environment, we are especially concerned about the protection of the manatee population that enjoys many of the waters that are so important to the City. We have enacted speed zone regulations, posted and maintain over 90 signs in our canals on protective requirements, conducted education sessions for boaters, formed a cooperative law enforcement unit, supported volunteer patrols, and recently doubled our city's marine law enforcement staff, to name a few of the efforts we have undertaken.

We have shown our commitment to manatee protection in both word and deed. We have increased the amount of city funds to manatee protection even in current times of shrinking city budgets. And our efforts have been successful. There have been no manatee deaths in the Caloosahatchee River by watercraft for more than eight months.

Manatee protection is a Florida issue. It is a prime example of where the President's emphasis on "cooperative conservation" can and should be implemented. Fundamental principles of federalism support a cooperative approach to designing solutions to decisions that have major environmental and economic consequences. We urge the Committee to amend the Marine Mammal Protection Act to require greater consultation and coordination with state and local manatee protection efforts.

Let me give you a few examples of why we believe greater reliance on a cooperative approach to conservation measures makes sense:

- First, the U.S. Fish and Wildlife Service ("FWS") recently proposed new speed zones on the Caloosahatchee River, our primary access to the coastal waterways of Florida. But the Florida Fish and Wildlife Conservation Commission last year completed a scientific study of manatees in this area and recommended in November that no change be made to the speed zones.
- In addition, the state has underway another study of the need for additional speed zones in Lee County, the county in which the City is located. This study is due to be completed in the Fall of 2003. But the Federal Government will be proposing its own new speed zone rules by July 31.
- Finally, working cooperatively with state and local officials would have avoided the Federal speed zone rule being proposed without acknowledging that a major new bridge had been built over the Caloosahatchee River.

Uncoordinated efforts lead to confusing and ineffective solutions. Greater coordination and consultation can make the best use of resources and develop greater support for the steps being taken.

I would also urge the reauthorization process to consider carefully the overlapping jurisdiction for manatees under the Endangered Species Act and the Marine Mammal Protection Act. I do not pretend to be an expert in either act. What I do know, however, is that the complexity of the laws and their interactions have resulted in significant delays in required governmental actions that are important to the economic future of the City of Cape Coral.

Hundreds of citizens in Cape Coral and in Lee County have been waiting for as much as two years for answers to dock construction applications. Dock construction is central to the water access that defines the economic base of our community. Permit applications were submitted to the Army Corps of Engineers, which in turn sent these applications to the FWS for consultation. At that point the process came to a complete halt even though Congress specifically included deadlines for agency action. Answers are supposed to be provided within 90 days, or with the permission of the applicant, 150 days.

The reasons for this delay are, I am certain, numerous. But one of the major factors is the overlap between the Endangered Species Act and the Marine Mammal Protection Act and the differing provisions of the two statutes. These delays are not merely inconveniences to those who wish to build docks and other marine facilities. These dock applications are the lynchpin of the marine industry that is the economic foundation of the City of Cape Coral. Each day's delay threatens another dock builder, boat retailer, and the many other businesses that depend on an active marine-based community. People are losing their businesses and their jobs.

I do not pretend to know what needs to be done to simplify and improve the overlapping laws that are intended to achieve protection of this important marine mammal. What I do know is that the current situation is counterproductive, causing substantial harm to the citizens and businesses of Cape CoraL I urge you, as a part of your reauthorization of the MMPA to examine carefully the overlap between the two statutes and to consider appropriate changes.

I would be happy to answer any questions you or your staff may have and I appreciate this opportunity to submit a statement for your consideration.

EARTH ISLAND INSTITUTE
San Francisco, CA, August 7, 2003

Hon. JOHN MCCAIN, Chairman,
Senate Commerce Committee,
Washington, DC.

FOR THE RECORD: REAUTHORIZATION OF THE MARINE MAMMAL PROTECTION ACT.

Dear Chairman McCain:

On behalf of the International Marine Mammal Project of Earth Island Institute, Defenders of Wildlife, International Wildlife Coalition, Sierra Club, Humane Society of the U.S., American Society for the Prevention of Cruelty to Animals (ASPCA), and the Society for Animal Protective Legislation, we would like to provide the following additional comments on reauthorization of the Marine Mammal Protection Act (MMPA). We request our comments be added to the record of the Subcommittee's deliberations.

We oppose the proposal by the Bush Administration to weaken the provisions in 1997's International Dolphin Conservation Program Act that specify that Sundown Sets cannot begin after one-half hour BEFORE sunset in the Eastern Tropical Pacific tuna fishery.

The Bush Administration proposes to change the Sundown Set provision to one-half hour AFTER sunset, providing tuna fishermen with an additional hour of potential fishing.

However, the National Marine Fisheries Service has stated that Sundown Sets, wherein tuna nets are deployed deliberately on schools of dolphins at the end of the day, as light is fading, cause dolphin mortality three to four times higher than regular net sets on dolphins during daylight hours.

Furthermore, the late Dr. Kenneth Norris of the University of California Santa Cruz stated, in his book *Dolphin Days* (1991), that he served in the early 1980s on a scientific committee for the National Marine Fisheries Service which originally proposed that Sundown Sets end one-half hour BEFORE sunset. It was due to tuna industry pressure, not science, Dr. Norris writes, that Congress originally set the timing of Sundown Sets back one hour to one-half hour AFTER sunset.

Since the Sundown Set provision was revamped by Congress in 1997 back to t9e original form recommended by Dr. Norris and his fellow scientists, the Bush Administration wishes to turn back the clock on dolphin protection, and actually promulgated a Rule arbitrarily changing the clear Congressional language on Sundown Sets. This matter is in litigation with several of our organizations involved in opposing this arbitrary effort to lengthen the fishing day at the expense of dolphins by the Administration.

Thank you for your consideration of our views in this matter.

Sincerely yours,

DAVID PHILLIPS,
Director.

Cc Senator Olympia Snowe
Senator John Kerry
Senator Barbara Boxer

JEAN-MICHEL COUSTEAU'S OCEAN FUTURES SOCIETY
May 29, 2003

Hon. OLYMPIA SNOWE, Chairwoman,
Hon. JOHN KERRY, Ranking Member,
U.S. Senate Commerce, Science, and Transportation Committee,
Subcommittee on Oceans, Atmosphere and Fisheries.
Washington, DC.

Via Facsimile: 202 228 2339

Dear Chairwoman Snowe and Senator Kerry:

I thank you for holding a hearing on the reauthorization of the Marine Mammal Protection Act this Congress, and ask that you accept my comments in the form of this letter for the record. I write on my behalf as an ocean explorer and advocate, and on behalf of the members of my organization *Jean-Michel Cousteau's* Ocean Futures Society—a group that is deeply concerned about protecting the world ocean.

As you and the members of the Subcommittee review the Marine Mammal Protection Act, we would like to emphasize the continued importance of further refining such a powerful and effective statute. Since originally passed in 1972 and through subsequent amendments, the Marine Mammal Protection Act continues to protect America's most adored and charismatic wildlife-our diverse populations of marine mammals. The Act has also become a formidable international model for effective conservation and protection of marine mammals, a fitting tribute to one of the world's leaders in marine resource conservation.

We applaud the Administration's initiative in several areas of the proposed bill to amend the Marine Mammal Protection Act (MMPA); most notably the increase in authorized appropriation levels for both the Departments of Commerce and Interior to enhance MMPA implementation.

In addition, we generally support the fishery interactions provisions found in Title IV Section 402, and the expansion language (Title IV, Section 403) to include non-commercial fisheries in the incidental take permit program. We would like the subcommittee to emphasize the need for increased observer coverage in order to truly understand marine mammal-human interaction, and hence we support increased funding for the observer program. To this end, we appreciate the language that authorizes the development of alternate observer system programs, and also the Title V Section 516 directive for fisheries gear development to decrease marine mammal interaction with commercial and non commercial fisheries.

We also support the Administration's proposed amendment to section 102 of the Act, dealing with captive release prohibition (Title V Section 502), however, the proposal would benefit from language that clarifies that the prohibition applies to any person subject to the jurisdiction of the United States and to any marine mammal maintained in captivity at a facility in the United States or on the high seas.

Included in Title V of the Administration bill are various authorizations dealing with health and stranding response, as well as stranding and entanglement response, and unusual mortality event funding; there are also specific suggestions for (Title V, Section 512) Marine Mammal Research Grants. As a dedicated producer of environmental education films, I would like the Subcommittee to consider the importance of funding public education and outreach on strandings and entanglement-given the often dramatic and highly charged atmosphere surrounding such events, adequate education and outreach to the public are vital for both marine mammals and the Federal Agency charged with ameliorating the situation.

Finally, and perhaps most importantly, we are very concerned by changes to the definition of "harassment," and by a proposal that would allow the Department of Defense to grant itself a categorical exemption to the Marine Mammal Protection Act. We believe the definition of harassment as determined in the 1994 reauthorization is sound, and should not be weakened as proposed by the Administration. The use of the term "significant" only further obfuscates the issue, and will undoubtedly lead to drawn out battles over the robust nature of the data in question.

The U.S. military has all the power it needs in times of emergency to achieve its mission, and does not need a separate incidental take permit process or an exemption due to national safety concerns. Military readiness has not been impacted by the current implementation of marine mammal protection laws. The Department of Defense routinely makes use of year-long authorizations for projects that require exemptions from the moratorium on taking of marine mammals. The agency responsible for granting the permits (usually the National Marine Fisheries Service) has a streamlined mechanism in place which sets a process in motion that cannot exceed 120 days. Further, although it has never been invoked with regard to the MMPA, the Department of Defense currently has the authority and flexibility to seek special accommodation and relief from any decision that would have an adverse impact on military readiness.

Respectfully yours,

JEAN-MICHEL COUSTEAU,
President.

PREPARED STATEMENT OF THE ALLIANCE OF MARINE MAMMAL PARKS AND AQUARIUMS

The Alliance of Marine Mammal Parks and Aquariums ("Alliance") is an international association of marine life parks, aquariums, zoos, research facilities, and professional organizations dedicated to the highest standards of care for marine mammals and to their conservation in the wild through public education, scientific study, and wildlife presentations. Collectively, the members of the Alliance represent the greatest body of experience and knowledge with respect to marine mammal care and husbandry.

Almost ten years ago, this Committee worked closely with the Alliance to create a fair regulatory regime for the public display of marine mammals under the Marine Mammal Protection Act ("MMPA"). The goal was to end duplicative government oversight, reduce the enormous time spent on needless paperwork requirements, ascertain that education programs meet professional standards, and simplify transport and export procedures. The 1994 Amendments were intended to accomplish these goals and assure the continued well-being of the magnificent animals in our facilities.

Notwithstanding the goals of the 1994 Amendments, in the last decade, the National Marine Fisheries Service ("NMFS") has produced "interim guidelines" and proposed regulations that ignore the Amendments and resurrect most of the costly and duplicative programs and requirements Congress rejected in 1994. NMFS' proposed MMPA amendments (known as the "Administration Bill") provide a new legislative foundation for the agency's interim guidelines and proposed regulations, which would have the effect of creating a legislative structure that would enable NMFS to revert to its pre-1994 regulatory regime. The Alliance has previously commented on the many problems associated with NMFS' proposed regulations, problems which will be resurrected by NMFS' proposed legislation. We are attaching a copy of those comments for ease of reference.

The 1994 MMPA amendments, as they affect public display facilities, were, in large part, Congress' response to NMFS' 1993 plan to "simplify" the existing five pages of regulations with a 263 page proposal. Not only would this proposal have needlessly complicated aspects of marine mammal conservation and management such as public display and breeding, but an Arthur D. Little study showed that this "simplification" would cost approximately $32.2 million over five years. After reviewing NMFS' proposal, Congress determined it was inconsistent with Congressional intent and with the Act. In enacting the 1994 Amendments, Congress rejected the burdensome approach proposed by NMFS and clarified the authority of the Secretary of Commerce and the Secretary of the Interior.

To place NMFS' 2003 legislative proposal into context, it may be helpful to review the 1994 Amendments. Those Amendments authorized the taking or importation of marine mammals for public display by a person: (1) offering a program for education or conservation based on professionally recognized standards, (2) registered or holding a license under the Animal Welfare Act, and (3) maintaining facilities that are

open to the public. 16 U.S.C. § 1374(c)(2)(A). The 1994 Amendments then provided that a person granted a permit there under would have "the right, without obtaining any additional permit or authorization" to take, import, purchase, offer to purchase, possess, or transport the marine mammal that is the subject of the permit; and to sell, export, or otherwise transfer possession of the marine mammal. 16 U.S.C. § 1374(c)(2)(B). The receiving person would have the same rights. 16 U.S.C. § 1374(c)(2)(C). The 1994 Amendments also made it clear that the authority to establish care and maintenance standards for marine mammals rests solely with the Department of Agriculture, thus ending the bureaucratic overlap and costs associated with NMFS' view that the MMPA authorized it to establish a separate set of care and maintenance standards.

The legislative proposal that NMFS has now sent to Congress, the Administration Bill, reverses the 1994 Amendments. The proposed amendments:

1. eliminate the restriction in current law that the Secretary may only require permits for the taking or importation of marine mammals, and expands the Secretary's authority to also require a permit or other authorization for export or transport. See generally § 302(a) and (b) of the Administration Bill; and
2. open the door for a specific "public display" permit which in turn raises the potential for NMFS to regulate the care and maintenance of marine mammals in zoological "public display" settings—the exact opposite result intended by the 1994 Amendments under which the Animal Plant Health Inspection Service within the Department of Agriculture is exclusively responsible for captive marine mammals.

The above proposed expansion of NMFS' jurisdiction is exacerbated by NMFS' further proposal to allow it to promulgate regulations encompassing the "export, transport, purchase, or sale of a marine mammal or a marine mammal product." See § 303 of the Administration Bill. All this is reminiscent of, and attempts to reinstate, the extensive regulatory system Congress rejected in 1994 in which even negotiations to sell or purchase marine mammals which are owned by public display facilities might need NMFS' blessing.

The Administration Bill also includes a section (§ 513) that would ban "traveling exhibits." This provision is unnecessary in that it addresses a non-existent situation in the U.S. Moreover, it duplicates APHIS' existing regulatory authority.

There is merit to § 510 of the Administration Bill which extends the stranding provisions of the MMPA to include entanglement. Indeed, entanglement is properly viewed as another form of stranding. The effect of the amendment would be to authorize NMFS to enter into agreements to allow assistance to both stranded and entangled animals.

Likewise, the Alliance supports § 515 of the Administration Bill which amends the definition of "harassment." The Alliance agrees this change would improve the enforceability of the harassment prohibition without compromising conservation measures.

The Alliance has long argued that NMFS' implementation of the 1994 Amendments, through its interim guidelines, flaunts Congressional intent and can only be rectified by clarifying amendments to the MMPA. The first such amendment the Alliance recommends addresses the export of marine mammals. The MMPA currently provides that exports may occur without additional authorization from NMFS provided the receiving facility meets standards comparable to those for U.S. facilities.

Unfortunately, NMFS has applied these provisions to prohibit exports unless the foreign government signs a letter of comity binding that government and the foreign facility to meeting the precise requirements of the MMPA as interpreted by NMFS. The U.S. Fish and Wildlife Service ("FWS") also employs NMFS' comity requirements.

Through these requirements, NMFS effectively has repealed the MMPA's comparability standard and replaced it with its own mandate. Notwithstanding the fact that the courts have held that the MMPA does not apply outside U.S. jurisdiction and although Congress has said that the receiving facility need only meet comparability standards, NMFS has insisted that no export can occur without a letter of comity binding the foreign nation and its facilities to compliance with the MMPA and NMFS' regulations. In some instances, the agency has required that the country have laws similar to the Animal Welfare Act and the MMPA.

Under NMFS' interpretation of its authority, if a marine mammal is to be transferred from a U.S. public display facility to a public display facility in Canada in 2003, NMFS can block the export unless Canada signs an agreement stating the Canadian facility will meet each of NMFS' regulatory requirements. Curious issues arise when the MMPA requirements applicable to U.S. facilities are suddenly treated as if they are a binding international treaty. For example, in the above illustra-

tion, if the Canadian facility does not continue to meet NMFS' regulatory conditions, the letter of comity acts as NMFS' authority to order seizure of the animals. If the Canadian facility continues to meet the regulatory requirements but, in 2013, decides to transfer the animal to a public display facility in Spain, the Canadian facility must ensure that the Spanish facility also meets NMFS' regulatory requirements, including that NMFS receive a fifteen day advance notice of the transport from Canada to Spain and that the facilities in both countries provide NMFS with complete inventory reports. And if the animal at the Spanish facility gives birth five years later, the Spanish facility must notify NMFS. And if the progeny is transferred to a public display facility in Denmark ten years thereafter, the Spanish facility is to ensure the Danish facility meets NMFS regulatory requirements, including that NMFS receive a fifteen day advance notice of transport and that both facilities provide NMFS with complete inventory reports. And, if fifteen years from now, now forty years after the original 2003 export from the U.S., the marine mammal originally transferred, now in a Spanish facility dies, NMFS is to receive a notice of that event. If the progeny, now in Denmark, dies in 2063, sixty years after the parent left the United States, NMFS is still to receive notification, including the cause of death.

Not surprisingly, foreign governments are reluctant to agree to subordinate their national sovereignty to the U.S. MMPA and to NMFS' regulations and enforcement decisions. In an unusual exercise of logic, NMFS justifies its position by first recognizing that it has no authority to apply the MMPA outside of the U.S. and then arguing that because it has no such authority, NMFS must have letters of comity to give it that authority.

In addition to these legal issues, there are several practical policy problems with securing a letter of comity. As already noted, NMFS' policy infuriates foreign governments. For example, in a letter to NMFS dated May 14, 1996, the director of the Department of Agriculture and Fisheries of Bermuda stated in response to NMFS' demand for a letter of comity that "[t]he [G]overnment of Bermuda does not have the authority to segregate its regulatory duties over persons in Bermuda to any other Government or Governmental agency. In short, the Government of Bermuda cannot issue a letter of comity to NMFS."

Recognizing this reality, NMFS often abandons its own policy. Thus, after NMFS successfully offends a foreign nation by demanding that it subordinate its national sovereignty to NMFS, and after forcing U.S. facilities to incur enormous transactional costs, NMFS often settles for a "letter of comity" which does not even comply with its own policy. In one case, the foreign government refused to sign a letter of comity and NMFS accepted a letter from the foreign facility saying that it would give comity to NMFS' regulations. The situation with FWS is the same. In one case, FWS deemed a letter from the mayor of the town as an appropriate letter of comity. The Alliance is unaware of any nation in which the mayor of a city has the authority to bind the national government.

There are other significant policy reasons for Congress to prohibit NMFS from insisting on these letters of comity. First, the policy has broad ramifications for marine mammal breeding programs and for the animal exchanges which are necessary for international species management. Institutions in foreign nations that object to letters of comity and to U.S. infringement on their sovereignty will be unable to participate in these important programs to the detriment of the animals and the maintenance of the genetic diversity.

Second, before issuing CITES permits, FWS, which administers CITES, requires NMFS' concurrence with respect to CITES listed marine mammal species under NMFS' jurisdiction. NMFS will not provide that concurrence without a letter of comity. The net effect is that persons are precluded from receiving CITES permits because of NMFS insistence on letters of comity.

Third, when NMFS relents and accepts something less than a letter of comity, it does so only after the United States and the foreign public display facilities have expended huge amounts of time or money attempting to bridge the gap between NMFS and the foreign government. These excessive transactional costs are wholly unnecessary. In one case, the export of eight sea lions was delayed for months, and involved at least three government agencies and numerous government officials, during which the owner of the sea lions had to address unfounded accusations about a simple transport overseas.

Finally, there is no precedent for letters of comity. No other law or regulation for any other species of wildlife provides that foreign facilities are subject to U.S. law and shall be treated as if they are U.S. facilities following the exportation of the animal. Even under the Endangered Species Act, once an export is approved and occurs, U.S. jurisdiction ends.

The reality is that NMFS continues to ignore the law, the courts, and the Congress with adverse consequences for stranded marine mammals, responsible animal management, and international breeding programs. This issue must be addressed in any MMPA reauthorization.

Congress should also clarify the statutory requirements relating to the inventory of marine mammals held at public display facilities. First, Congress should clarify that this is an inventory of facilities subject to NMFS jurisdiction, not an inventory of facilities that NMFS would like to have subject to its jurisdiction through letters of comity. Second, this is an inventory of living marine mammals. Stillborn animals, or animals not surviving birth, need not be included in the inventory. Finally, the inventory can, and should, be updated on an annual basis as was the case prior to passage of the 1994 amendments. Currently, NMFS requires that there be multiple forms submitted, each providing the exact same information, every time there is a change in an animal's status.

Last year, Alliance members helped save the lives of hundreds of stranded dolphins, whales, manatees, seals, and sea lions found sick, injured, or orphaned on beaches and shorelines around the world. Efforts to recover and study stranded marine mammals are broadly recognized as a major asset in the conservation of these animals in the wild, as well as being an important humanitarian practice. Stranded marine mammals are a significant source of information on the natural history, health, and status of wild populations. The ability to attach tracking devices to rehabilitated stranded animals has afforded important glimpses into their worlds and behaviors in the oceans' depths. Government agencies often request Alliance members to care for stranded endangered animals that cannot be released as a result of illness, injury or age. In doing so, Alliance members accept the financial burden of keeping these animals healthy and well cared for the remainder of their lives. For endangered species, NMFS and FWS are then requiring the facility to go through a time-consuming and costly permitting process for animals housed at government request. Congress should clarify that government agencies have the ability to place endangered stranded marine mammals that are not releasable in public display facilities without requiring additional, needless permitting.

In summary, Congress agreed in 1994 that export permits where not needed, but NMFS instituted letters of comity. Congress additionally agreed that transport permits also were not needed and recommended a simple, 15-day notice of transport, but NMFS now requires six forms every time an animal is moved. Congress never changed the requirement for an *annual* inventory report to a daily inventory report, but NMFS, without notice, simply stopped circulating an inventory once a year for updating. The burdensome, time-consuming six forms now function as the update to the inventory on a day-to-day basis.

The Alliance has brought the above concerns before Committee and Congressional staff each year in expectation that reauthorization of the MMPA would occur. However, a careful review of NMFS' 2003 recommended amendments to the MMPA in the Administration Bill have exposed a number of additional issues of concern. The Alliance is presently considering how to address these problems within the context of the MMPA reauthorization.

There is no more appropriate time to remind Congress why it exempted marine life parks, aquariums, and zoos from the moratorium on the collection of marine mammals when the Marine Mammal Protection Act was passed in 1972. The collective, global efforts of Alliance members have had stunning results in educating the public about the need to conserve marine mammals; funding important research that benefits not only the animals in facility collections but also those in the wild; and helping to save the lives of thousands of stranded dolphins, whales, manatees, seals, and sea lions found sick, injured, or orphaned on beaches and shorelines around the world.

Almost everyone (97 percent) who participated in a 1998 Roper Starch opinion poll at Alliance member facilities said their experience with living marine mammals had a positive impact on their appreciation and knowledge of the animals. In fact, two-thirds of the visitors said their experience with living marine mammals had a "great deal" of impact on their appreciation and knowledge of the marine mammals. The impact was even greater in those facilities where the park visitors actually had an opportunity to personally interact with the marine mammals.

These findings mirror a 1995 Roper Starch poll which found that 92 percent of the public believes that marine life parks are essential in teaching the public about marine mammals and giving them opportunities to learn, which they would not have otherwise. More than 3 in 4 people acknowledged that having marine mammals on public display is helpful to nature and the environment because it enables people to see and learn about these animals.

The marine mammals in Alliance facilities are well-loved, live as long or longer than their counterparts in the world's oceans, and receive state-of-the-art care. The Alliance's Accreditation Program, and the Standards and Guidelines on which accreditation is based, demonstrate the commitment of all Alliance members to optimize the psychological and physical health and environmental conditions of all marine mammals in the care of these zoological institutions, as well as to maximize the educational and scientific efforts of the public display community.

Alliance education standards, for example, have been published in the Federal Register by NMFS and are recognized worldwide as excellent "professional standards" on which to base marine mammal educational programs. Additionally, these standards are among those that serve as the basis for one of the three criteria U.S. facilities must meet to display animals under the MMPA. Non-U.S. institutions wishing to import marine mammals from the U.S. must also meet professional education standards.

As a recent article in the "Outlook" section of the *Washington Post* stated: "More Americans go to zoos every year than go to all professional football, basketball, hockey and major league baseball games combined. . . . The reason people go to zoos is to see the animals up close. . . ." Alliance members focus the power and popularity of their live marine mammals on providing guests an awareness of the need to preserve these wonderful marine mammals.

The Alliance appreciates the opportunity to present this testimony and looks forward to working with the Subcommittee in developing appropriate amendments to the MMPA.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. OLYMPIA J. SNOWE TO DR. REBECCA LENT

Question 1. Ocean Noise and Research—The 2000 NRC report on Marine Mammals and Low-Frequency Sonar and other underwater sounds illustrates the great need for further research in this area, and it says, specifically, that NMFS has supported very little research aimed at determining the potential effects of man-made sound on marine mammals. The report further recommends that "mission agencies with responsibilities related to marine mammals (such as NOAA) should provide increased funding for marine mammal research and improve the ways that research is identified, funded and conducted." The NRC's 2003 report on this topic lists dozens of specific research initiatives that still need to be undertaken. Their lead recommendation is, in fact, to have a single Federal agency take a leadership role on this research.

(a) Does NOAA agree with the research findings and recommendations in the 2000 and 2003 reports, including their lead recommendation to have a single Federal agency take the lead on this research? If so, should that agency be NOAA, the Navy, the Marine Mammal Commission, or some other agency?

(b) Since the noise research issue does not seem to be fully addressed in the administration's proposed bill, exactly what is NOAA doing to better assess, understand, and regulate the impacts of low frequency sonar and other man-made underwater noise on marine mammals, as recommended by the NRC?

(c) Would it be productive to have more of NOAA's marine mammal research conducted by the external academic community? If so, should such activities be awarded through a competitive process or through directed grants to institutions?

(d) What are the major obstacles to advancing research on marine mammals and noise? What legislative action would be needed on this topic, if any?

Answer. (a) NOAA Fisheries generally agrees with the recommendations and findings in the 2000 and 2003 reports, but has concerns about the recommendation regarding assigning a single Federal agency with lead responsibility for research. Each agency that currently funds research (Navy, MMS, NSF, USGS, NOAA Fisheries, etc.) has its own mandate related to noise, and prioritizes its research needs based on its mission responsibilities. Although a single agency could take the lead on all research, it would be unclear how one agency could address the various agencies' needs and ensure that the science conducted supports the specific management and mission responsibilities of the agencies. It would be feasible for one agency to coordinate among the research efforts so as to identify gaps and avoid redundancies. Of the existing agencies, NOAA Fisheries would be the best suited to coordinate and track research needs on all sources of human sound because it has regulatory authority to monitor and protect marine mammal populations.

(b) To better assess and regulate the effects of noise on marine mammals, NOAA Fisheries is developing draft Acoustic Guidelines, which will undergo NEPA review.

These guidelines, similar to OSHA standards for humans, will provide guidance to the regulated community and the public on noise exposure of marine mammals. These guidelines are currently undergoing internal review prior to peer review. In association with these guidelines, the NOAA Fisheries' Acoustics Team has proposed a full program of research that responds to the NRC's recommendations on (1) the global monitoring of ocean noise, (2) the creation of a single database to house all available data on ocean noise, and (3) research on the effects of noise on marine mammals.

(c) NOAA Fisheries presently spends less than $200,000 annually on research. To date, all of it has been directed to academic institutions. Even with increased funding, a significant portion would go to directed grants or contracts to the academic community, either for deployment of monitoring stations or research on the effects of noise. Much of the research needed is very specialized and can only be conducted by a few laboratories. We have begun to develop additional expertise within NOAA that could be expanded to address specific management needs.

(d) One major obstacle is the lack of research infrastructure in this field. Few researchers are trained in the special techniques needed for marine mammal hearing research, and new researchers have not entered this field. Only three laboratories in the U.S. have captive marine mammals to study for noise exposure. None of them has the facility to study hearing or noise effects in large whales. In general, NOAA Fisheries sees no legislative changes that are needed on this subject at the present time. However, congressional interest on this international conservation challenge is welcomed. NOAA Fisheries would like to work with the Committee on ways to prioritize research in this area.

Question 2. Harassment Definition—I understand from your written testimony that NOAA has experienced difficulties with interpretation, implementation, and enforcement of the current MMPA harassment definition. The administration MMPA bill proposes a new definition. How will NOAA's proposed definitions change what activities do and do not need a permit? Please give me some examples of activities that need permits now that would not need permits under the proposed NOAA definitions, as well as activities that do not need permits now that would need permits.

Answer. The Administration's MMPA reauthorization bill proposes amendments to section 3(18) to clarify in Level A and B harassment (as defined in section 3(18)(A) and section 3(18)(B)(i)) that those activities that would likely result in biologically significant, harmful effects on marine mammals would constitute harassment while those that have the potential for *de minimus* effects on marine mammals would not. The proposed definition also clarifies by adding proposed section 3(18)(B)(ii) that those activities directed at marine mammals in the wild that are likely to disturb them would constitute harassment. All activities would continue to be evaluated on a case-by-case basis to determine whether or not they would constitute harassment and require authorization.

The Administration's proposed definition of harassment, consistent with similar legislative proposals from the previous administration, would clarify that activities that could have very minor incidental behavioral effects on marine mammals might not require an incidental take authorization, depending on circumstances such as duration of the activity and the location of its occurrence. Examples of activities for which we have issued authorizations over the last 10 years that would likely not need a permit under the new definition include non-explosive dock construction or repairs; removal of oil storage tanks; minor maintenance dredging; repairs to coastal walls; installing a floating dock; and oceanographic research using low intensity acoustic sources.

We do not foresee that there are activities that do not now need permits that would need them under the new definition. For example, some directed research that currently requires a permit because it has the "potential to injure" (current definition of Level A harassment) might not meet the threshold of "*significant* potential to injure" (as defined in the proposed harassment definition) and would instead qualify for a Letter of Confirmation under the General Authorization (GA). The GA is a streamlined process for authorizing research activities involving only Level B harassment, such as photo-identification, behavioral observations, and vessel and aerial population surveys. Currently, the GA does not apply to intrusive research, which has an inherent potential to injure. However, under the proposed definition, there might be a change in type of authorization needed. Some intrusive procedures that can be shown not to injure or not to have the significant potential to injure a marine mammal, may qualify under the GA instead of requiring a research permit. For incidental activities, some may not reach the significant potential to injure standard and would fall under Level B, going from the incidental take authorization process under MMPA section 101(a)(5)(A) to the more streamlined process for incidental harassment authorization under MMPA section 101(a)(5)(D).

Question 3. DOD Exemption from the MMPA—The House version of the National Defense Authorization Act proposes giving the Department of Defense the ability to exempt themselves from "compliance with any requirement of the [MMPA], if the Secretary determines that it is necessary for national defense." Although NOAA does not seek this DOD exemption in their proposed bill, from NOAA's perspective, how would such an exemption, if invoked, likely affect whale conservation efforts and related social conflicts? Considering these possible impacts, would the benefits of this exemption outweigh the costs?

Answer. We note that this provision was enacted in the National Defense Authorization bill.

If invoked, this provision could result in reduced protections for marine mammals. Given that such an exemption has never been invoked by the Secretary of Defense, NOAA cannot reasonably predict the costs and benefits of a possible use of the exemption. A similar exemption is provided in the Endangered Species Act (ESA) for national security reasons. Such an exemption to the MMPA would, therefore, be in line with exemptions to protections for threatened and endangered species when the Secretary of Defense deems it necessary for national defense. NOAA Fisheries supports such an exemption that would only be exercised in extraordinary situations for reasons of national defense, and in which DOD would first be required to confer with the Secretary of Commerce about the rationale for an exemption.

Question 4. Small Numbers Definition—Many groups, including the Navy, the Consortium for Oceanographic Research and Education, and much of the scientific community has recommend deleting the term "small number" from the incidental take language. Even the National Research Council, in their 2000 report, said "it would be desirable to remove the phrase 'small number' from [the] MMPA" (P. 71). Still, this is not a change that the administration is proposing in its bill.

(A) Why has the administration, contrary to the advice of the NRC in 2000, decided to keep the phrase "small numbers" unchanged in its proposed bill? What are the benefits of keeping the phrase, and what are the costs of deleting it?

Answer. Beginning in 1999, NOAA Fisheries worked closely with the Department of Defense, the Department of the Interior, the Marine Mammal Commission, and other entities to develop an administration MMPA reauthorization proposal. NOAA Fisheries (and the other agencies) did not then propose removing the term "small numbers" from the statute because the agency had not encountered any difficulties with its regulatory definition (a joint regulation with the USFWS), which has been in effect for more than twenty years (47 FR 21248, May 18, 1982). That regulation defines small numbers as "a portion of a marine mammal species or stock whose taking would have a negligible impact on that species or stock." Like Congress, NOAA Fisheries recognized that the concept of small numbers is not capable of being expressed in absolute numerical limits. Rather, the agency deemed it necessary to link the definition of small numbers to a biologically meaningful concept, *i.e.,* impacts of an activity on the affected species and stocks. Therefore, this definition considers the impact of an activity on the reproduction and survival of the affected marine mammal species or stocks.

The Administration's MMPA reauthorization proposal was transmitted to Congress in February 2003, a date that preceded the U.S. District Court's August 2003 final decision, which found that the regulatory definition is contrary to law.

NOAA Fisheries does not believe that retaining the phrase in the statute has any benefits. This is because the agency must still make a determination that the activity will have no more than a negligible impact on affected species or stocks. The regulations define "negligible impact" as "an impact resulting from the specified activity that cannot be reasonably expected to, and is not reasonably likely to, adversely affect the species or stock through effects on annual rates of recruitment or survival." From a resource management perspective, this is the crucial determination for incidental take authorizations, not whether the number taken is absolutely or even relatively small. The cost of retaining the phrase is that it is unnecessary from the perspective of sound resource management principles and it creates another regulatory hurdle that the agency must overcome and subsequently defend in litigation.

Another important consideration is that the term small numbers, if it must be defined in quantitative terms rather than being linked to population level impacts, could lead to the illogical result that as marine mammal populations improve and increase in abundance, it increases the possibility that NOAA Fisheries may have to deny an incidental take application solely on the basis that the numbers of takes are not small. This scenario would be particularly possible where the takes anticipated are Level B harassment, such that a negligible impact determination can be made despite the relatively large numbers of take.

(B) If we were to maintain a sharp focus on the "negligible impact" standard, would that provide enough protection for marine mammals, thereby making the phrase "small numbers" standard unnecessary?

Answer. NOAA Fisheries believes that focusing on the negligible impact standard provides the necessary protection for marine mammals, and in practice that is already the case. Because the MMPA and its legislative history give no substantive guidance on the meaning of small numbers—except to say the concept cannot be expressed in absolute terms—NOAA Fisheries considers small numbers in relative terms, meaning that the authorized taking must be limited to that which has a small (negligible) impact on the affected species or stocks of marine mammals. Since a robust population (such as California sea lions) could easily sustain the take of more individuals than a small, declining population (such as North Atlantic right whales or Hawaiian monk seals), the determination of small numbers could vary widely depending on the stock in question and type of take (*e.g.,* harassment vs. mortality), making it difficult to establish one definition that applies in all situations. For both, the negligible impact determination is the governing principle. Neither the Administration's MMPA reauthorization proposal nor the National Defense Authorization bill eliminates the negligible impact determination; therefore, neither would affect this aspect of NOAA's incidental take authorization process. Thus, determinations that an activity would have only a negligible impact on affected marine mammal stock(s) provide sufficient protection for marine mammals.

Question 5. Scientific Permits—According to many marine mammal scientists, the procedure for issuing permits for the taking of marine mammals, especially those that are endangered or threatened, is time consuming and complex. While some, including the NRC, recommend streamlining the multiple permit processes (*e.g.,* MMPA, NEPA, etc.), it appears that the administration's bill does not address any such changes. Still, we need to better understand if and how this can be improved. Why did the administration lose the case resulting in the court injunction of Dr. Tyack's research? Even though his case was based on a NEPA permit, what overall changes is NOAA making to better deal with similar scientific research permit issues in the future?

Answer. In the case of Dr. Tyack's research permit, the court determined that NOAA Fisheries should not have categorically excluded the action from the requirement to prepare an EA or EIS.

The Administration did not propose any changes to the MMPA regarding scientific research permits because NOAA Fisheries does not feel any statutory changes to the MMPA permitting process are needed at this time. The perceived delays are experienced by a small minority of applicants and are primarily related to the capacity to complete complex environmental analyses required under NEPA and ESA for permit issuance with available resources. To clarify, no permits are specifically required or issued under NEPA, but NOAA Fisheries must comply with NEPA requirements for environmental analyses and public disclosure in issuing MMPA and ESA permits.

The MMPA provides for, and NOAA Fisheries Office of Protected Resources currently offers, a streamlined authorization process. For research activities not related to ESA-listed species that have the potential to disturb but not injure a marine mammal or marine mammal stock in the wild (Level B harassment), the General Authorization is an expedited (30-day) process for researchers to obtain authorization for scientific research on marine mammals. For those activities that have the potential to injure a marine mammal or marine mammal stock (Level A harassment), researchers can obtain a Scientific Research Permit. For proposed research activities that do not involve ESA-listed species or do not require separate NEPA analyses, the expected timeline for a Scientific Research Permit is 90 days. When research is on threatened or endangered marine mammals, NOAA Fisheries Office of Protected Resources issues a joint MMPA/ESA permit, rather than two separate permits. In addition, all required NEPA and ESA analyses are done concurrently within the permit process to the maximum extent possible. To process these more complex requests for permits dealing with ESA-listed species and requiring separate NEPA analyses, an additional 135 days (in addition to 90 days) is needed for consultations under the ESA.

In 2001, 88 percent of the scientific research applications for activities directed at ESA-listed species were processed in less than the 225 day time frame. The 12 percent that were over 225 days resulted from complex analysis in connection with the biological opinion. Sixty percent of the applications for non-ESA listed species were completed in less than 90 days. For the 40 percent of the applications processed in greater than 90 days, in most cases the delay was the result of incomplete information provide by the applicant. In some cases it took the applicant 275 days to provide us with the proper information.

To further streamline the permit process, NOAA Fisheries Office of Protected Resources is preparing programmatic NEPA documents and ESA analyses on various research activities. Therefore, many future permit applications will have a reduced processing time. We are also preparing new application instructions to assist applicants with the process. Having all of the required information provided electronically should further expedite application processing, as well as maintain a high level of applicant involvement in the process.

Question 6. Right Whales Issues—To date, it seems like most of NOAA's and the Take Reduction Team's attention on reducing right whale mortality has focused on reducing fishing gear entanglements. This is certainly important, but it's important for NOAA to devote attention to ship strikes, the other leading cause of right whale mortality. What are the tools, authorities, and funding that NOAA needs to combat the ship strike problem? Are these necessary elements now in place, or do they need to be provided to NOAA?

Answer. Indeed, available data suggest that ship strikes account for more right whale mortalities than entanglements in fishing gear or any other human-related activity. More than 50 percent of confirmed right whale mortalities have been attributed to ship strikes, and there is clear evidence that this impact is one of the principal causes of the slowed recovery in this population. The areas where right whales occur lie in or are adjacent to major shipping corridors on the U.S. eastern and southeastern Canadian coasts, and the carcasses of most whales struck by ships have been recovered in or near major shipping lanes.

NOAA Fisheries recognizes that this is a complex problem requiring additional, more pro-active measures than those currently in place, and that more attention to the problem worldwide is needed. The agency's ongoing program over the last decade to reduce ship strikes to right whales includes: aerial surveys to notify mariners of right whale sighting locations; operation of the northeast U.S. and southeast U.S. mandatory ship reporting systems to provide information to mariners entering right whale habitat; working with the U.S. Coast Guard (USCG) to issue periodic notices to mariners regarding ship strikes; support of Recovery Plan Implementation Teams that provide recommendations to NOAA Fisheries on recovery activities; support of shipping industry liaisons; and Endangered Species Act (ESA) section 7 consultations.

The Mandatory Ship Reporting System (MSR) went into place in 1999. This was the first step in understanding more specifically the ship strike problem. It has taken 2 years to collect the data to understand areas for improvement. In late 2001, NOAA Fisheries formed a working group to address the issue of ship strikes. This process culminated in the agency's development of a Ship Strike Reduction Strategy, approved by NOAA in May 2003. The Strategy is a multi-year blueprint of specific steps to be taken to reduce or eliminate the threat of ship strikes that incorporates regional differences in oceanography, commercial ship traffic patterns, and navigational concerns. Since interagency collaboration is key to the Strategy's success, NOAA established an Interagency Working Group on the Reduction of Ship Strikes to Right Whales to aid in the Strategy's implementation and enforcement. The Working Group is expected to meet for 6–8 months. Initial steps have been made toward NEPA analysis, and economic impacts are being evaluated for potential regulation. Further, a ship strike outreach and education plan has been developed as an integral part of the NOAA Ship Strike Reduction Strategy; at present, the Northeast and Southeast Right Whale Recovery Plan Implementation Teams are helping NOAA Fisheries begin to implement this plan.

We look forward to working with Members of Congress on support for and implementation of this Strategy.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. JOHN F. KERRY TO DR. REBECCA LENT

Question 1. Harassment Definition—Three of the witnesses appearing today raise concerns with the Administration's proposal to only require an incidental take authorization for harassment under the MMPA if the activity can be shown to lead to "abandonment" or to "significantly alter" a natural behavior. Given our lack of knowledge about the likely impacts of various activities on marine mammals, won't it be impossible to know in some cases at the time an activity is proposed whether such activity would "cause disruption of natural behavioral patterns", such as migration, "*to a point where such behavioral patterns are abandoned or significantly altered*"?

Answer. The question underscores the limitations inherent in the current definition, as well as in any proposed definition. The fact is that we have to make deci-

sions on impacts of various activities even though we are limited in our knowledge of marine mammal behavior. We do know that when an activity causes disruption of a natural behavioral pattern to a point where the behavioral pattern is abandoned, either temporarily or permanently, or to a point where the behavioral pattern is significantly altered, then the activity has risen to the level of harassment. These effects can be measured, monitored, and mitigated. The Administration's proposal clarifies that harassment means biologically significant, harmful changes to behavior patterns rather than the remotest potential to disturb.

Question 2. Since even a momentary abandonment of sheltering a young calf from a killer whale attack could be lethal, wouldn't the use of this term in some cases raise Level B harassment to impacts that are the equivalent of non-harassment lethal takes?

Answer. Such a scenario presumes that the cause of the adult whale's disturbance did not similarly affect the killer whale, that the killer whale was already in close proximity to the adult whale and its calf, and that the female's maternal instinct to protect her young from this already detected predator was somehow compromised by the disturbance. Almost all second level impacts due to a marine mammal being disturbed cannot be predicted and are, therefore, too speculative for analyzing whether an activity will result in taking a marine mammal. However, if we determined that an activity is likely to incidentally cause death, as in the example, then the activity would require authorization under section 101(a)(5)(A) rather than the more streamlined process for incidental harassment authorization under MMPA section 101(a)(5)(D).

Question 3. Isn't it the case that many activities that have the potential for serious impacts on marine mammals simply go unregulated?

Answer. NOAA Fisheries has been regulating the impacts of human activities on marine mammals to the extent that the MMPA provides NOAA Fisheries with regulatory authority, and within the constraints of the current definition of harassment. Generally, it is incumbent upon applicants to seek authorization under MMPA section 101(a)(5)(A) or 101(a)(5)(D) if the applicant thinks his or her proposed activity will constitute a certain level of harassment. NOAA Fisheries works with agencies and members of the public to educate them about the authorization requirements under Section 101 of the MMPA. But, it is possible that applicants are not always seeking authorization for some activities that constitute harassment. Once NOAA Fisheries becomes aware that an activity (other than commercial fishing) might result in incidental take of marine mammals it works with the applicant proposing the activity to ensure that takings, if negligible, are authorized under section 101(a)(5)(A) or 101(a)(5)(D) of the MMPA. Often this involves establishing mitigation measures to ensure that a proposed activity will have a negligible impact on marine mammals.

Question 4. The House passed a DOD authorization bill without the third prong of the Administration's proposed definition, aimed at activities "directed at" marine mammals. Do you have any concerns with dropping this part of the definition, and if so, why?

Answer. Yes. The Administration's bill for MMPA reauthorization included this language to address activities such as chasing or touching marine mammals in the wild that may not overtly lead to significant alteration of the marine mammal's natural behavioral pattern at the time, but that are likely to cause disruption of natural behavioral patterns that are associated with cumulative, long-term harm to marine mammals. By including the third prong of the harassment definition, the administration bill seeks different language for regulating harassment *incidental to* a particular activity and harassment that is *directed at* individuals or groups of marine mammals in the wild. As such, in an enforcement proceeding for harassment described in the Administration bill's proposed section 3(18)(B)(ii), the agencies would not need to show that disruption of a behavior was significant. In addition to enhancing enforcement of the harassment standard, this paragraph will help agencies better educate members of the public about avoiding marine mammal harassment when recreating in waters used by the animals.

We would like to emphasize that this language will not adversely affect the scientific research community since there is already a process in place under Section 104 of the MMPA and its implementing regulations regarding General Authorizations for bona fide scientific research on marine mammals that results in no more than Level B harassment. This provides the scientific research community with a streamlined process to conduct such research.

Question 5. Your written testimony states that NMFS devotes resources to addressing biologically insignificant impacts, and that the statute could now be interpreted to prohibit activities such as "humans walking along a pier near a group of

sea lions causing them to stop feeding and raise their heads." Has NMFS ever issued a permit for walking on a pier, or for similar activities? Has it ever enforced against a failure to seek such a permit?

Answer. NOAA Fisheries has never issued an incidental harassment authorization for a single individual walking on a pier. We provided this scenario as an example of the types of activities that the Administration bill's proposed definition of harassment seeks to clarify are not harassment. The agency is also not aware of an enforcement action against an individual that has not sought an authorization for walking along a pier and causing sea lions to raise their heads and stop feeding. However, a similar activity that results in the "flushing" of a large number of marine mammals into the water, causing them to abandon their feeding, might constitute harassment and might be subject to enforcement action.

Question 6. Question: Has NMFS actually been sued for failing to prohibit activities such as walking on a pier, or for dolphins swimming in the wake of a boat? Has any court decision stopped a project on this basis?

Answer. To the best of our knowledge, NOAA Fisheries has not been sued for failing to prohibit these activities nor has a project been stopped on this basis. This does not mean that those challenges cannot be brought in the future.

Question 7. Why hasn't NMFS clarified the current standard through regulation in terms of the types of activities that would rise to the level of concern?

Answer. NOAA Fisheries has promulgated regulations in order to clarify the current harassment standard. For example, NOAA Fisheries promulgated regulations to prohibit the feeding of wild marine mammals under Department of Commerce jurisdiction, approaches of closer than 100 yards to humpback whales in Hawaii and Alaska, and approaches closer than 500 yards to North Atlantic right whales. NOAA Fisheries issued an Advance Notice of Proposed Rulemaking (ANPR) in January 2002 (67 FR 4379) seeking the public's input on what measures, if any, we should take to further address the issue of harassment from human activities that seek to interact with or elicit a response from wild marine mammals. However, within the broad framework and terms in the current statutory language, the agency is limited in how much we can clarify in regulations.

Question 8. Your written testimony states that "As interpreted by some courts, the current definition does not distinguish biologically significant, harmful events from activities that result in *de minimis* impacts on marine mammals." What lawsuits are you referring to? Isn't it the case that the only court to have actually dealt with the issue, the Northern District of California in the LFA case, found that NMFS did have discretion under the current definition to distinguish between *de minimis* and actual disruptions of behavioral patterns?

Answer. Although the Northern District of California found in favor of NOAA Fisheries' interpretation of the definition of harassment, this is the only court decision on the subject of which we are aware. At this time, neither party to this case has made a final decision as to whether to appeal the decision, and this recent opinion of one district court would not preclude anyone from making a similar argument in other courts and contexts.

Question 9. NMFS approved the Navy's request for an incidental take authorization for the LFA-sonar program. A number of mitigation measures were included. Could you describe some of the more important mitigation measures included in the NMFS authorization for the LFA-sonar program?

Answer. While there are several mitigation measures to protect marine mammals and other marine life, two are predominant. First, in order to eliminate to the extent practicable the potential for injury to marine mammals from the LFA source, the Navy designed and had constructed an active high-frequency sonar system that is capable of detecting marine mammals to about 2 km (1.25 land miles) from the source. This distance is significantly greater than the distance in which scientific information indicates marine mammals would be injured. Under the regulations, if the LFA sonar is operating when the high frequency sonar detects a mammal within 2 km buffer zone, the Navy must terminate LFA sonar operations immediately. LFA sonar transmissions may not resume until at least 15 minutes after all marine mammals have left the area and there are no further detections of such animals within 2 km of the LFA vessel. A court injunction ensures that these mitigation measures apply as well to sea turtles and other marine species.

Second, to reduce the incidental harassment of marine mammals to the lowest level practicable, NOAA Fisheries requires that the Navy to limit LFA sonar transmissions to no more than 180 dB within 12 nm of any coastline (including offshore islands), within any offshore area designated as biologically important for marine mammals, and within the offshore boundaries of national marine sanctuaries that

extend beyond 12 nm from the coast, all of which are areas where marine mammals are generally more abundant.

Question 10. Do you believe the incidental take process for this authorization worked, overall, given the complexity and scope of the new technology?

Answer. Yes. NOAA Fisheries worked closely with the Navy over a number of years to evaluate impacts on marine mammals from operation of this new sonar. The evaluation involved scientific research, developing and applying new models to estimate effects, developing new mitigation measures and requirements, etc. The process resulted in a sensible approach to testing new marine technologies. Previous to LFA sonar, no other activity has required the investment of such a significant amount of resources to assess and mitigate impacts to marine mammals.

Question 11. Does DOD come to NMFS and FWS to seek authorizations for all of its activities? Isn't it the case that training exercises in the Gulf of Maine, in right whale habitat, were conducted without any authorization? And was the recent use of sonar by the Navy in Haro Strait conducted under an authorization?

Answer. We would not expect DOD to request authorizations for all their activities, but only for those that are anticipated to result in the take of marine mammals. The Navy did not request an authorization for training exercises in the Gulf of Maine nor for their activities in Haro Strait. We are unaware of any marine mammal takes by injury or harassment incidental to training in the Gulf of Maine. NOAA Fisheries is continuing necropsy studies on the harbor porpoise that stranded in Haro Strait to determine the cause of the mortality.

Question 12. If DOD were to decide, pursuant to the proposed new definition, that it did not need to come to NMFS for an authorization, does that mean that NMFS would have no role in developing any mitigation measures for such activities?

Answer. This is currently the case for all agencies. It is incumbent upon the action agency or individual to initially determine whether to seek an authorization since NOAA Fisheries cannot know all the planned activities. If an agency determines that its activity will not meet the harassment threshold, then they will not seek an authorization and therefore NOAA Fisheries would have no role in developing mitigation, unless otherwise requested by the agency.

Question 13. At last year's House Armed Services Committee hearing on environmental issues, Dr. Hogarth testified that "to the extent the Navy and other action agencies can plan sufficiently far in advance of activities and provide us with adequate time to work them at the earliest possible stages, the implications of the permit process should be minor." What steps have been taken in the past twelve months to increase your resources and initiate more advanced planning to foster a more efficient permit application and review process?

Answer. At this time we have three FTEs and two contract employees working on the issuance of incidental take authorizations (for activities other than commercial fisheries) and the closely related subject of acoustic noise impacts on marine mammals. At the time of last year's hearing, there were only two FTEs handling that work (although we were actively recruiting for additional staff at that time). We have hired two additional biologists to work on consultation under ESA Section 7. We have also continued to foster a close working relationship with various DOD components so that NOAA's program staff are involved in early planning under the National Environmental Policy Act (NEPA). We are currently working with a number of DOD components including the Navy, the Army, and the Air Force as they complete various NEPA analyses and Section 7 consultations to ensure the impacts of future proposed activities on marine mammals are adequately assessed.

Question 14. If the Administration's proposed definition of harassment were to be adopted, would an activity such as LFA-sonar still constitute harassment?

Answer. For most foreseeable circumstances, yes.

DOD Provisions: Impacts from Use of Mid-range Sonar

Question 15. Would the use of the mid-range sonar in the Haro Strait be likely to require an authorization under the Administration's proposed new definition of harassment?

Answer. Based on information we have regarding mid-frequency sonar and impacts on marine mammals, NOAA Fisheries encourages prospective applicants intending to use mid-frequency sonar in the marine environment to contact our agency to help them determine whether an incidental take authorization or changes in their operating procedures are advisable given the specifics of their activity. This applies to the Haro Strait situation under both the current definition and the proposed new definition of harassment.

Question 16. Had the Navy sought an authorization from NMFS under MMPA for this activity?

Answer. No, the Navy had not sought an authorization for this activity under the MMPA.

Question 17. Did the Navy have an authorization from NMFS under MMPA for the use of mid-range sonar in the Bahamas? In the Canaries? For dropping live ordnance in the Gulf of Maine? If not, what is NMFS doing to enforce the MMPA?

Answer. The Navy did not apply for incidental take authorizations for any of the listed activities. NOAA Fisheries will continue to work with the Navy, which has the responsibility either to ensure that its activities do not take marine mammals or to seek an authorization for the taking of marine mammals. Based on the investigation of strandings of beaked whales in the Bahamas and with input from NOAA Fisheries, the Navy agreed that it would change its operating procedures for use of sonar in areas where oceanographic features and sensitive marine mammal species may result in harassment of marine mammals. NOAA Fisheries is unaware of any takes occurring due to Navy training in the Gulf of Maine. NOAA Fisheries is strongly committed to continue working with the Navy to help it comply with the Marine Mammal Protection Act.

Question 18. What other Navy activities that have the potential to disrupt natural behaviors of a marine mammal or marine mammal stock in the wild—the current statutory standard—for which Navy has not sought an incidental take authorization under the MMPA?

Answer. This question is more appropriately addressed to the Department of the Navy since NOAA Fisheries is unaware of many of the activities undertaken by the Navy.

DOD Provisions: Deletion of "Small numbers," "Specified Geographical Area"

Question 19. Could you explain how the "specified geographical area" standard is currently applied? Could it be applied to an activity like LFA-sonar, which could potentially be used anywhere in the globe?

Answer. "Specified geographical region" is defined in regulations as "an area within which a specified activity is conducted and that has certain biogeographic characteristics." There is no requirement that the area be small. For all incidental take applications prior to the Navy's application for SURTASS LFA sonar, incidental take authorizations were for single, discrete projects fixed in either location or time, so the limits of the term "specified geographic region" were never tested. However, NOAA Fisheries believes that this standard can and does apply to the Navy's current SURTASS LFA activities as they were described in the Navy's application and accompanying EIS.

NOAA Fisheries issued regulations governing its incidental take authorizations for SURTASS LFA. Through the rulemaking process, NOAA Fisheries ultimately identified, based on published scientific literature, a biogeographic system comprised of 15 biomes and 54 provinces (with subprovinces) therein. Although the LFA sonar system could theoretically operate in much of the world's oceans, under the regulations it would still be used within the geographic areas specified, and not outside of them. Furthermore, the rulemaking contemplated take incidental to operations of only two ships, which, because of their number and the speed at which they travel, are significantly limited as to the number of geographic regions in which they can operate. Moreover, the Navy is required to obtain annual letters of authorization (LOAs) for each ship, and those annual LOAs specifically limit each vessel to operating in the few areas requested by the Navy in its LOA application.

The U.S. District Court in *NRDC* v. *Evans* (SURTASS LFA case) ruled that the specified geographic regions identified in NOAA Fisheries' final regulations were not arbitrary and capricious, provided that the agency takes the additional step of carving out locations within those regions, during particular seasons, where known high concentrations of marine mammal activities would otherwise render the effects on marine mammals throughout the region very disparate. However, the Court also found that NOAA Fisheries regulations as written do not limit the Navy's operations to a specified geographic region, and therefore violated the MMPA. The Court ordered that the regulations must authorize the Navy to operate in only a limited number of geographical regions at any given time.

Scientific Permitting Issues—There is a lot of discussion concerning the need to fix the permitting process.

Question 20. Is the process at fault or do these cases highlight the need for a higher level of awareness from those seeking and issuing the permits?

Answer. NOAA Fisheries does not believe there is a problem with the MMPA process for issuance of scientific research permits. However, there is a general lack of understanding among the research community about the complexity of the permit

process, especially for research that may affect threatened or endangered species and requires consultation under the ESA. There is also a lack of knowledge about the requirements for environmental analyses under NEPA and, perhaps, some unrealistic expectations about how quickly such complex analyses can be completed, particularly given the limited human and fiscal resources within the Office of Protected Resources. To raise the level of awareness among those seeking permits, the Permits Division has conducted workshops and seminars at professional conferences to explain the permitting process to our constituents. These outreach activities have been well received and worthwhile.

Question 21. What aspects of the permitting process are being or could be changed to improve this situation?

Answer. In a number of cases, permit processing has been delayed because applicants supplied insufficient information on their proposed research, resulting in an incomplete application. When applicants have to be contacted for additional information needed to complete their application, processing time is increased. The Permits Division is preparing new instructions for applicants seeking scientific research permits that will make more explicit the information needed to determine whether the proposed activity complies with the MMPA and to enable the agency to conduct environmental analyses as required under NEPA and, where applicable, the ESA. NOAA Fisheries is also developing an online application system that would allow researchers to apply electronically, as well as view the status of their application throughout the application process. In addition, to help applicants prepare more complete applications, the Permits Division has been conducting education and outreach about scientific research permits to facilitate the process.

Question 22. How many FTEs does your agency have for processing authorization requests under the MMPA? How would increased staffing help expedite this process thus addressing some of the concerns raised by the scientific community and the Navy?

Answer. The Permits Division has nine FTEs, all of whom are dedicated to processing applications for permits under the MMPA and ESA. This includes processing applications for scientific research or enhancement permits for all marine mammals under NOAA Fisheries' jurisdiction, requests for Letters of Confirmation (LOC) under the General Authorization (GA) for scientific research that may result in only Level B harassment, applications for commercial/educational photography permits, applications for import of marine mammals for public display and collection from the wild, and applications for permits for scientific research or enhancement on shortnose sturgeon, smalltooth sawfish, white abalone, and six species of sea turtles. As part of processing permit applications, Permits Division staff prepare any analyses required under NEPA and draft analyses of effects for consultations under Section 7 of the ESA. The staff also spend considerable time communicating with permit holders, issuing additional amendments and authorizations under the permits, reviewing and analyzing permit annual reports, maintaining permit-related information on the website, and conducting general education and outreach (as time and funding allow). In addition to duties directly related to processing permits, staff must also respond to controlled correspondences and requests for information under FOIA, including a large number of requests for information maintained in NOAA Fisheries' inventory of marine mammals held at public display facilities.

The Permits Division currently receives about 80 applications per year for research and enhancement permits or permit modifications and amendments, and 10 requests per year for LOCs under the GA, in addition to more than 60 requests per year for various other permits and authorizations under the MMPA and ESA. In the past eight months, Permits Division staff have prepared about 40 NEPA documents related to issuance of research and enhancement permits. Having additional resources to dedicate to the complex NEPA and ESA analyses, which we have requested in the President's budget, would facilitate the more routine aspects of processing permit applications and authorizations and allow more complex applications to be issued in a more timely manner. In addition, more programmatic NEPA and ESA analyses could be completed as appropriate to streamline analyses for some complex applications resulting in issuance in a more timely manner.

NOAA Fisheries has two full-time employees and one full-time contractor currently completing incidental take authorizations. Two of these positions were recently filled; they have already helped significantly with expediting review of applications for incidental take authorizations. On average, program staff analyze and process 17 incidental harassment authorizations and two major Letters of Authorization per year. We have one FTE and one contractor providing technical advice on ocean noise. NOAA Fisheries has six ESA section 7 biologists to conduct analysis

on these authorizations, among the 60+ consultations they carry out each year for a range of Federal activities, some extremely complex.

Question 23. Are most of the applications processed within the statutory time frame?

Answer. Most requests for Letters of Confirmation under the General Authorization (for Level B harassment-related research on non-ESA listed marine mammals) are processed within the 30-days allowed. The majority of other applications for MMPA scientific research, public display or commercial/educational photography permits are also processed within 90 days, including a mandatory 30-day public comment period. The MMPA allows 30 days from the close of the public comment period for issuance or denial of a scientific research permit under MMPA. However, when ESA-listed species are involved, Section 7 of the ESA allows 135 days for consultation and preparation of a Biological Opinion. These joint MMPA/ESA permit applications also require more extensive NEPA analysis.

The same can be said of processing incidental take authorizations under the MMPA. Where analyses under ESA Section 7 and NEPA are required, it is difficult to meet the statutory deadline of 120 days for incidental harassment authorizations.

Question 24. How will requirements under NEPA be integrated with those of MMPA, and will the interaction between these two statutes lead to any difficulties in getting authorization requests processed in a timely manner?

Answer. NEPA requirements are already integrated into the MMPA permit process in regulations and NOAA Administrative Orders (NAO) applicable to permit applications and issuance. For most applications, this "interaction" of statutes does not result in any delays in getting a permit. Pursuant to NAO 216–6, most permits for scientific research on marine mammals are categorically excluded from the requirement to prepare an EA or EIS. However, when the research will adversely affect an endangered species, when the potential risks or environmental impacts are uncertain or unknown, where there may be cumulative significant impacts, or where the impacts on the environment are controversial, preparation of an EA or EIS is required. Depending on the complexity of the analyses and the nature of any controversy, as well as staff workload and office resources, preparation of an EA/EIS can substantially extend the processing time for a research permit application.

Question 25. Could general authorizations be one approach? How would that work?

Answer. General Authorizations are in effect for scientific research and they work well. We wish to reiterate that there is not a problem with the MMPA scientific research permitting process but rather with applications that require more extensive analysis under the ESA and NEPA.

Enforcement

Question 26. Is it accurate that you have not been enforcing the MMPA provisions against intentional interactions with marine mammals by individuals? Why not?

Answer. NOAA has successfully enforced against violations for human activities involving feeding or that cause observable injuries to marine mammals in the wild. For example, NOAA has been relatively successful in prosecuting violations involving observable injury of marine mammals, such as a recent case involving the shooting of a sea lion with an arrow. In the past, we have successfully prosecuted a commercial tour operator found to be feeding wild dolphins.

Activities such as swimming with, touching or petting marine mammals in the wild have been more difficult to regulate and prosecute. Deleting "pursuit, torment, or annoyance" and adding the proposed new second tier of the definition of "Level B harassment" makes explicit that activities directed at individual or groups of marine mammals are considered harassment if they are likely to disturb the animals. This will greatly improve the ability to enforce against harassment violations by individuals or organizations who approach marine mammals too closely or engage in inappropriate activities such a s swimming with, chasing or touching the animals.

Question 27. Please give examples of activities, such as the "swim with the wild dolphin" programs, of which NMFS is aware, and why the MMPA ban on takes has not been enforced against such programs.

Answer. As previously explained, NOAA has been relatively successful in prosecuting violations involving observable injury of marine mammals, such as a recent case involving the shooting of a sea lion with an arrow. Activities such as swimming with marine mammals in the wild have been more difficult to regulate and prosecute because of the impediment to establish that acts were ones of pursuit, torment or annoyance. Also important, swim with the dolphin programs may not result in immediately observable disruption of natural behavioral patterns, but are likely to cause disruption of natural behavioral patterns that are associated with cumulative

long-term harm to marine mammals, which is difficult to prove in specific cases. In addition to concentrated education and outreach efforts focused on these activities, the agency is working to determine if additional regulatory and enforcement measures will more effectively address the issue.

Over the past several years, swimming with wild dolphins has significantly increased in the Southeast U.S. and Hawaii, and is beginning to expand to other U.S. coastal areas and to other species of marine mammals. In the Southeast, swimming with bottlenose dolphins appears to be facilitated by illegal feeding activities, which have been prohibited since 1991 when NOAA Fisheries amended the definition of "take" under 50 CFR 216.3 to include feeding or attempting to feed a marine mammal (56 FR 11693, March, 20, 1991). In Hawaii, where feeding of wild dolphins has not been a concern, swim with activities primarily target Hawaiian spinner dolphins and take advantage of the dolphins' use of shallow coves and bays during the day to rest and care for their young. In the Southwest, tour operators are offering opportunities to dive and swim with gray whales, pilot whales, Pacific white-sided dolphins, harbor seals, and sea lions.

Additional activities of concern include the use of motorized or non-motorized vessels (*e.g.,* outboard or inboard boats, kayaks, canoes, underwater scooters, or other types of water craft) to interact with marine mammals in the wild by: (1) tightly circling or driving through groups of dolphins in order to elicit bow-riding behavior (via large vessels or personal watercraft); (2) using non-motorized vessels to quietly approach (sometimes resulting in a startle response when the vessel is not detected by the animal until it is too close); (3) petting gray whales in California; and (4) using underwater "scooters" to closely approach, pursue and interact with the animals. Public interactions with marine mammals on land have also increased in recent years. Elephant seals, harbor seals and sea lions in the Southwest, and monk seals in Hawaii, are closely approached by people for the purpose of observing them, posing with them for pictures, touching, petting, poking, throwing objects at them to elicit a reaction, or simply strolling among them. These activities can be harmful to animals and to humans—a number of injuries and even deaths have resulted from individuals trying to swim and interact with wild marine mammals.

NOAA Fisheries has been regulating the impacts of human activities on marine mammals to the extent that the MMPA provides us with regulatory authority, within the constraints of the current definition of harassment and as allowed by the availability of resources. As these activities have grown exponentially worldwide, more research has been focused on impacts of these human activities, and the agency is now able to begin synthesizing these research findings into management decisions.

Question 28. How will the Administration's proposed change to the harassment definition fix this concern? If this change is made, should we expect to see NMFS and FWS increase their enforcement activities?

Answer. The proposed new definition of "Level B harassment," which is consistent with the previous Administration's position, makes explicit that activities directed at individual or groups of marine mammals in the wild that are likely to disturb them are considered harassment. This will greatly improve the ability to regulate and enforce against individuals or organizations who approach marine mammals too closely and engage in inappropriate activities that are likely to disturb the animals such as swimming with, chasing or touching the animals. The proposed harassment definition will also improve the ability to regulate and enforce against activities that may not overtly lead to abandonment or significant alteration of the marine mammal's natural behavioral pattern at the time, but that are likely to cause disruption of natural behavioral patterns associated with cumulative, long-term harm to marine mammals.

NOAA Fisheries intends to implement the new language in several ways. First, the agency will continue its long-term outreach efforts to educate the public and commercial operators about safe and responsible marine mammal viewing practices by continuing to produce outreach materials (*e.g.,* brochures, posters, signs, public service announcements, etc.), holding community workshops, and continuing its partnership with the Watchable Wildlife program. Second, the agency intends to develop regulations as follow-up to the Advance Notice of Proposed Rulemaking published in January 2002 (67 FR 4379) that would further clarify specific activities directed at marine mammals that can cause harassment of the animals. Third, the NOAA Office of General Counsel intends to work with its Office for Law Enforcement and NOAA Fisheries to develop strategies for enforcement.

Question 29. To be able to use the "dolphin-safe" label for tuna caught in the ETP pursuant to 16 USC 1385(d)(2), a tuna product exported to the U.S. either must be accompanied by a written certification that the tuna was not caught by setting on

dolphins, or the vessel must be of a size and type that the Secretary of Commerce has determined "is not capable of deploying its purse seine nets on or to encircle dolphins." NOAA has defined this size vessel to be less than 400 short tons, yet vessels in this category have been observed setting on dolphins. Does NOAA plan to revise its regulations defining what size vessel is capable of setting on dolphins? Is NOAA allowing tuna caught by vessels less than 400 short tons to be labeled "dolphin safe," despite these observations?

Answer. Currently, several actions are being taken, both within NOAA Fisheries and the international community, to address the issue of purse seine vessels less than 400 short tons (st) that intentionally set on dolphins in the eastern tropical Pacific (ETP). First, we note that vessels of 400 st or less carrying capacity are divided into five classes—Classes 1–3 contain vessels of 200 st or less carrying capacity and Classes 4–5 contain vessels between 201 and 400 st carrying capacity. Only Class 4–5 vessels contain sufficient horsepower to chase and set on dolphins. Some of these vessels have been observed deploying purse seines on dolphins in the ETP.

NOAA Fisheries and the Parties to the Agreement on the International Dolphin Conservation Program (AIDCP) are aware of the problem of Class 4–5 vessels setting on dolphins in the ETP. At the 33rd Meeting of the Parties to the AIDCP in June 2003, a plan to enhance the success of the AIDCP, originally proposed by the U.S. in February 2003, was discussed and approved. Among other things, the plan tasks the Parties with further investigating the equipment and other indicators of observed cases of Class 4–5 vessels setting on dolphins in the ETP; exploring methods to ensure compliance within those two size classes; and evaluating the effectiveness of the requirement that observers be placed on Class 4–5 vessels that have been alleged to set on dolphins. Currently, any Class 4–5 vessels observed setting on dolphins are required to carry an observer on all subsequent trips. At upcoming Meetings of the Parties, the United States delegation plans to follow-up on this issue and actively pursue the formal adoption of a resolution requiring all vessels capable of setting on dolphins to carry observers.

Regulations pertaining to tuna tracking and imports currently only address purse seine vessels in excess of 400 st carrying capacity (50 CFR 216.91–216.93). Therefore, under current regulations, a small amount of tuna caught by Class 4–5 vessels that intentionally set on dolphins in the ETP, could potentially be imported to the U.S. Therefore, the NOAA Fisheries Tuna Tracking and Verification Program is carefully monitoring and checking the trip records for these vessels when they appear on import documents. Thus far, import shipments of canned tuna originating from small vessels fishing in the ETP have been minimal. Nevertheless, NOAA Fisheries is disturbed by this caveat in the dolphin-safe labeling standard, which is why we are spearheading the effort to extend observer coverage to all vessels capable of setting on dolphins.

We also note the importance of accurately characterizing the potential impact of tuna imports originating from Class 4–5 vessels that intentionally set purse seines on dolphins in the ETP. Specific tunas, types of processing, and nations from which tuna is being imported are indicative of fish caught by purse seining in the ETP. For example, imports in this category would include frozen yellowfin, and not fresh yellowfin (caught by pole-and-line fishing) or other tuna (caught by methods other than purse seining). By querying the NOAA Fisheries, Foreign Trade Information database (*http://www.st.nmfs.gov/st1/trade/trade_cmprsn_by_product.html*) one can determine the relative impact of imports of yellowfin tuna caught in ETP purse seine operations as a percentage of overall yellowfin tuna imported to the U.S.

In 2002, a total of 24,949,546 lbs of yellowfin tuna were imported to the U.S. Of that total, a maximum of 42,197 lbs of yellowfin tuna (0.169 percent) could have come from the ETP purse seine fishery. It is possible that a portion of the 42,197 lbs could have originated from Class 4–5 vessels, of which some smaller percentage of yellowfin tuna might have come from Class 4–5 vessels setting on dolphins. Results from available 2003 data are similar to those for 2002. A total of 250,219,896 lbs canned tuna was imported to the U.S. in 2002, of which 44,482,354 lbs (18 percent) could have originated from purse seine operations in the ETP. (Available data for 2003 are similar to those for 2002.) However, NOAA Fisheries views these figures as extremely conservative relative to the question of tuna imports originating from small boats setting on dolphins in the ETP. First, the bulk (approximately 96 percent) of these canned tuna imports come from Costa Rican and Ecuadorian canneries, where imports are closely scrutinized. The remainder of the canned tuna imports come from Mexico. If there were a problem, it would comprise some fraction of this small percentage of canned tuna imports.

NOAA Fisheries is concerned about the fraction of tuna imports that may have been caught by Class 4–5 vessels setting on dolphins in the ETP, and the misinformation this small number of imports would provide consumers. It also notes that

available data indicate that the magnitude of this problem is very small relative to all tuna imports. Still, the agency is currently addressing this issue and dedicated to rectifying it through international channels, as well as through its domestic regulations.

Question 30. Section 3003(b) of Public Law 102–587, enacted in 1992, directed the Secretary of Commerce, by November 1994, to develop and implement objective criteria to determine at what point a marine mammal undergoing rehabilitation is returnable to the wild. Would you update the Committee on the status of those criteria and the agency's plans for finalizing them?

Answer. A draft NOAA Technical Memorandum entitled, "Release of Stranded Marine Mammals to the Wild: Background, Preparation, and Release Criteria" was posted in the *Federal Register* for public comment in 1997. This document was produced by NOAA Fisheries and the Fish and Wildlife Service (FWS) based on comments generated in a workshop sponsored by the Marine Mammal Commission (St. Aubin etal. 1996). Based on the public comments received, NOAA Fisheries convened two working groups in 2001 to specifically address issues raised by the 1997 review. NOAA Fisheries has taken the recommendations from the working groups and from the FWS and generated a draft final document, which NOAA Fisheries plans to provide for public review within the next few months.

Co-Management

Question 31. Under the Administration's proposed bill, Alaska Natives would be included in the management process of depleted stocks, and in making depletion findings. What is the rationale for bringing Alaska Natives into the management of depleted marine mammal stocks when this has been a Federal agency role in the past?

Answer. The rationale behind bringing Alaskan natives into the process is 1) to try to prevent depletion proactively, 2) to bring the expertise and input of Alaskan natives into the process of managing depleted stocks, and 3) to provide a more cooperative, enforceable process of regulating subsistence harvest for both non-depleted and depleted stocks that would be in addition to and more timely than the current, cumbersome formal rulemaking process for regulating subsistence harvest, which is only applicable if a stock is already depleted.

Question 32. Do you think the current methods of consultation and opportunity for notice and hearing by interested members of the public are not adequate for the Alaska Natives to contribute to the process?

Answer. The current methods of consultation and opportunity for notice and hearing by interested members of the public are adequate for the Alaska Natives to contribute to the process. However, the current process for regulation of subsistence harvest is not effective in that it does not provide an enforceable mechanism to regulate subsistence harvest prior to depletion and it only provides a cumbersome, formal rulemaking process for regulation of subsistence harvest after a stock is designated as depleted.

Question 33. If this public consultation process is not adequate, why aren't other interested parties being included in the management consultation?

Answer. See the answer to the previous question. In addition, the Administration bill's proposal for harvest management agreements would provide opportunity for input by others who, although they are not directly affected by the process, are still interested parties or individuals.

Animal and Plant Health Inspection Service (APHIS)

Question 34. Currently, wild marine mammals fall under the authority of NMFS and FWS in the wild. However, the primary authority gets passed to APHIS if the marine mammals are placed in public displays. Does NMFS play any role in the oversight of marine mammals in public displays?

Answer. The 1994 Amendments to the MMPA removed NOAA Fisheries' authority to oversee captive care and maintenance of marine mammals under the MMPA and shifted that responsibility to APHIS under the Animal Welfare Act. However, NOAA Fisheries has authority under the MMPA for those species of marine mammals under its jurisdiction to issue permits for importation and capture from the wild and to ensure that marine mammals held for public display purposes are held in accordance with the three public display criteria outlined in Section 104 (c)(2)(A). The three public display criteria require holders of marine mammals to (1) offer a program of education or conservation based on professionally recognized standards, (2) be registered or hold a license issued under the Animal Welfare Act (7 U.S.C. 2131 *et seq.*), (3) maintain facilities that are open to the public on a regularly scheduled basis and to which access is not limited other than by charging an admission fee.

In addition, Section 104 (c)(10) requires NOAA Fisheries to maintain an inventory of all marine mammals under its jurisdiction held in captivity.

Question 35. Does APHIS ever consult with NOAA on issues regarding the care and maintenance of captive marine mammals? Would that be useful?

Answer. Jurisdiction over marine mammal care and maintenance issues was transferred to APHIS under the Animal Welfare Act in 1994. NOAA Fisheries has no authority to oversee care and/or handling of marine mammals held for public display under the MMPA. NOAA Fisheries is available to offer any assistance requested by APHIS, but NOAA Fisheries' role would be limited under the MMPA .

Question 36. Concerns have been raised over the years with respect to the capabilities of APHIS to ensure adequate care for marine mammals on display (*e.g.,* with respect to Suarez Circus and the dolphin "petting pools"). What additional role might NMFS play to ensure the well being of these animals?

Answer. Under the MMPA, NOAA Fisheries currently does not have authority over the captive care and maintenance of marine mammals held for public display. Nevertheless, NOAA Fisheries maintains interest in the humane care and handling of marine mammals. However, without specific regulatory authority defined in the statute, it is difficult to identify what role(s) NOAA Fisheries could play to ensure the well being of these animals given its limited authority under the MMPA.

Fishery Interactions

Question 37. NMFS can require vessels in Category I and II fisheries to take observers on board. Funding to provide adequate observer coverage has been found to be lacking. NMFS reportedly has not actively enforced this requirement when captains refuse to take an observer on board. Do you consider the observer program necessary to help the Take Reduction Plans achieve their goals? If so, how should observer capabilities be improved?

Answer. Yes, observer programs are essential to NOAA Fisheries in terms of obtaining high-quality information for estimates of serious injuries and mortality of marine mammals incidental to fishing operations. Observer programs currently provide the most representative assessment of serious injury and mortality rates in fisheries. In addition, take reduction teams and plans require good observer information to develop sensible regulations.

Increased observer coverage in Category I and II fisheries is needed in general to improve data on marine mammal bycatch. Currently, approximately 30 percent of Category I and II commercial fisheries have some level of observer coverage (<1–100 percent). In addition to more extensive coverage across fisheries, NOAA Fisheries needs higher levels of coverage in certain fisheries to improve precision of marine mammal bycatch estimates. In an effort to increase observer coverage in the future, NOAA included a request for $2.8 million in the President's FY'04 budget to support efforts to reduce bycatch, which includes additional observer coverage in U.S. fisheries.

Question 38. Is NMFS actively enforcing the requirement for observers to be taken on vessels in Category I and II fisheries? If not, why not, and what can be done to improve this situation?

Answer. For the most part, NOAA Fisheries has not had difficulty when we have requested participants in Category I or II fisheries to take observers onboard their vessels. In a few cases in some regions, however, we have had problems with fishermen refusing to take observers to monitor interactions with marine mammals.

Nonetheless, we have recently re-doubled our efforts to engage enforcement officers in these matters and to more widely educate fishermen about the requirements in Section 118 for Category I and II vessels to take observers onboard when requested and the potential consequences of non-compliance with these requirements. Specifically, we have developed and distributed outreach and education materials about observer program requirements, stationed a staffed kiosk at trade and industry shows to talk to fishing industry members directly about MMPA observer requirements, and assigned permanent staff to specific geographic areas of responsibility to provide outreach to fishermen. We also have a presence at fishery management council meetings and have made presentations to them about MMPA observer program requirements and its goals.

Enhancing enforcement of the MMPA is an area the agency is working to improve. For example, the administration's MMPA reauthorization bill contains several provisions to enhance enforcement of the Act, including increasing civil penalties and clarifying that individuals who interfere with investigations or submit false information are in violation of the MMPA.

Question 39. Many problems have been cited with the effectiveness of the Take Reduction Team process. Given the limited number of Take Reduction Teams estab-

lished, Take Reduction Plans developed and implemented, difficulties in meeting statutory and regulatory deadlines and other concerns, is the TRT process an adequate tool to reduce the interactions of marine mammals and fisheries?

Answer. MMPA Section 118 provides a sound framework in which to address marine mammal bycatch concerns. While mortality and serious injury of marine mammals incidental to fishing continues to be a problematic source of marine mammal mortality nationwide, NOAA Fisheries has achieved bycatch reduction successes as a result of the take reduction team (TRT) and take reduction plan (TRP) development process outlined in Section 118 of the MMPA.

Since the first Take Reduction Team was enacted, we have seen significant success and have worked to overcome problems. Namely, the Pacific Offshore Cetacean Take Reduction Plan (POCTRP) has successfully reduced incidental mortality and serious injury of beaked whales, pilot whales, pygmy sperm whales, sperm whales, and humpback whales in the swordfish/shark drift gillnet fishery off California and Oregon. The POCTRP has achieved the MMPA's short-term goal of reducing incidental takes below the potential biological removal (PBR) level for all species covered under the Plan and has further reduced takes of some marine mammal stocks to below 10 percent of the PBR level (which is the level that NOAA Fisheries currently uses in its Stock Assessment Reports to determine whether the total fishery-related mortality and serious injury level for the stock can be considered to be insignificant and approaching a zero mortality and serious injury rate). Additionally, take reduction plans (TRPs) in the Gulf of Maine and Mid-Atlantic have successfully reduced bycatch of harbor porpoise to levels below the stock's PBR. While we have experienced management challenges related to preventing entanglement of large whales in the Atlantic in certain gear types, we are currently working closely with the Atlantic Large Whale Take Reduction Team to develop viable alternatives to address these challenges and feel that Section 118 provides an effective framework in which to meet these challenges. The Bottlenose Dolphin Take Reduction Team is the newest TRP. We think the process, given the range of issues and stakeholders, came out well and the plan when implemented, will work.

NOAA Fisheries plans to implement a final TRP for Western North Atlantic coastal bottlenose dolphins in early 2004. Modeling efforts show that the anticipated management measures will reduce incidental serious injury and mortality of bottlenose dolphins to levels below the stock's PBR. Over the next several years, NOAA Fisheries plans to convene TRTs to address bycatch of common dolphins and pilot whales in Atlantic longline and trawl fisheries. Thus, the agency has plans to address the instances in which incidental mortality and serious injury of marine mammals exceed PBR for a particular stock.

While Section 118 has provided a sound framework in which to address these issues in a stakeholder-inclusive process, there are still improvements that can be made in the program itself. We encourage Members of Congress to consider amendments to Section 118 proposed in the Administration's bill that would include non-commercial fisheries that have frequent or occasional incidental serious injury or mortality of marine mammals in the TRT and TRP development process, as well as other amendments aimed at providing monitoring alternatives and gear innovation initiatives.

Question 40. How accurate is our information with respect to numbers of marine mammals "taken" as bycatch in commercial fisheries?

Answer. Our information is generally good enough to identify in which fisheries incidental mortality and serious injury of marine mammals is a problem. In that sense, the information on bycatch is accurate. Where we have problems is the specifics of the interaction to help develop targeted regulations. Nonetheless, precision of information varies from fishery to fishery depending on a variety of factors, including, but not limited to, the size of the fishery, the nature and incidence of marine mammal bycatch in the fishery, and the level of observer coverage in the fishery. There are few instances in which marine mammal bycatch estimates are associated with high precision; in most fisheries, the lack of observer coverage and the rarity of the interactions, characteristic of fishery interactions with protected species, makes it difficult to achieve a high degree of precision in marine mammal bycatch estimates.

Question 41. How effective is the current linkage between TRTs and the Regional Fishery Management Councils with respect to bycatch reduction efforts?

Answer. The agency has taken steps to improve the linkage between TRTs and regional fishery management councils given the overlap in their functions and objectives. For instance, both the Atlantic Large Whale Take Reduction Team and Bottlenose Dolphin Take Reduction Team include representatives from Federal fishery management councils as well as state and interstate fishery commissions. These

TRT members are routinely asked to track and present information about fishery management decisions so that the TRT is aware of the effects of management decisions on efforts to reduce incidental mortality and serious injury of marine mammals under a particular TRP.

Additionally, the Protected Resources Division of NOAA Fisheries' Southeast Regional Office recently filled the new position of liaison with the Caribbean, South Atlantic, and Gulf of Mexico fishery management council meetings. We are aware of the need for close collaboration between TRTs and fishery management entities and are taking steps to improve the connection between them.

Question 42. The Atlantic Large Whale TRT appears to be struggling in achieving their objectives. Could you comment on why they are having such problems and how these might be overcome or avoided in the future?

Answer. The Atlantic Large Whale Take Reduction Plan (ALWTRP) was developed pursuant to section 118 of the MMPA to reduce serious injury and mortality of three endangered species of whales (north Atlantic right, humpback, and fin). As estimated in the most recent Stock Assessment Report (2002), PBR for humpback and fin whales is estimated at 1.3 and 4.7, respectively, while PBR for right whales is zero. Therefore, the Atlantic Large Whale TRT is tasked with reducing incidental mortality and serious injury of the critically endangered north Atlantic right whale stock to zero, and the plan cannot satisfy its objectives if even one right whale is killed or seriously injured by becoming entangled in commercial fishing gear.

This is a complicated problem with a broad range of stakeholders. One of the problems is being able to clearly link gear to entanglements to specifically identify appropriate management measures to reduce take. During 2002, 8 right whales were documented as entangled in fishing gear. Of these 8, only 1 was subsequently linked to a specific fishery or gear type. Thus far in 2003, 4 right whales have been documented as entangled; gear modifications and methods for marking gear are being explored. The ALWTRP relies on a combination of fishing gear modifications and time/area closures to reduce risk of entanglement in commercial fishing gear. However, without knowing exactly which specific fishery or gear type is causing entanglements, the TRT must strive to reduce risk from all the fisheries regulated under the plan. Finding an appropriate effective way to mark gear is needed.

In light of these entanglements, NOAA Fisheries convened a TRT meeting in April 2003 to obtain feedback on modifications needed to improve the plan. One of the outcomes from the meeting was the establishment of a gear marking subgroup that will develop a plan to assist in determining which fisheries and, more importantly, which components of fishing gear, are entangling whales. The TRT and NOAA Fisheries is striving to achieve its goals by continuing to modify commercial fishing gear as new information becomes available, directing funds toward additional gear research, expanding gear modifications and time/area closures, and continuing to include and regulate under the plan additional fisheries that may be interacting with these three stocks of whales. A limiting factor is the lag time between implementing new regulations and knowing whether those regulations have been effective. NOAA Fisheries is presently working on a proposed rule and draft environmental impact statement to modify the ALWTRP. NOAA Fisheries plans to arrange for the TRT to meet again in February 2004 to review new information and further discuss proposed modifications to the plan.

Question 43. The Administration's bill proposes to let the Secretary only develop take reduction plans for the strategic stocks that interact with Category I and II fisheries. NMFS would no longer be required to develop plans for stocks that are listed under the Endangered Species Act but do not have a high fishery-related mortality.

It is understandable that the agency has to focus their limited resources. However, is it necessary or advisable to address limited resources in this way, instead of placing such stocks at a lower priority for plan development? Isn't this particularly an issue as new fisheries are developing, and our knowledge of marine mammals and fishery interactions increases?

Answer. Stocks that are listed as either endangered or threatened under the Endangered Species Act are automatically considered "strategic" under the MMPA. For many of these stocks, endangered or threatened status has little or nothing to do with interactions with fisheries, but rather, other historical or non-fishery-related threats. Therefore, convening TRTs and developing TRPs for these stocks does not always constitute the best use of resources or the best approach to recovering these stocks. We do have the ability to prioritize convening TRTs and developing TRPs, and we do. Nonetheless, the Administration bill's section 402(c) provides a reasonable process to determine that a TRT/TRP process is not just a lower priority, but,

it is unnecessary because fishery-related mortality and serious injury is having a negligible impact on a strategic marine mammal stock.

The language proposed in Section 402(c) of the Administration bill merely provides NOAA Fisheries with some flexibility in dealing with strategic stocks where fishery mortality/serious injury is not an issue. Nonetheless, having this flexibility hinges on being able to determine that fishery-related mortality and serious injury is having a negligible impact on such stock(s). Therefore, as the question suggests, in the event that information shows new or even old fisheries are beginning to result in incidental mortality or serious injury of a strategic stock at a level that NOAA Fisheries determines is more than negligible, the agency would be subject to the requirement to convene a TRT and develop a TRP.

Question 44. Section 402(a) of the Administration bill is intended to clarify that it is a violation of the MMPA to engage in a Category I or Category II fishery without having registered. Would you explain why such a clarification is needed? That is, is it not already clear that section 118(c)(3)(C)(i) establishes such a prohibition by stating—"An owner of a vessel engaged in a fishery listed under paragraph (1)(A)(i) or (ii) who . . . fails to obtain from the Secretary an authorization for such vessel under this section . . . shall be deemed to have violated this title . . ."?

Answer. These amendments were meant to streamline Sec. 118 provisions detailing requirements of Category I and II fisheries. Section 402(a) would amend section 118(c)(3)(A) of the Act to clarify that it is a violation to engage in a Category I or II fishery without having registered under paragraph (2) of that subsection. Although such a prohibition seemingly exists under current section 118(c)(3)(C), the proposed amendment would eliminate any ambiguity regarding this important aspect of the incidental taking regime. NOAA Fisheries has been informed that there are those who interpret this provision to mean that if they do not interact with mammals then they do not need to register. Further, the requirement that owners of registered vessels carry an observer if requested to do so by the Secretary would be amended to clarify that this requirement applies to all participants in Category I and II fisheries. The proposed amendment would also place all of the prohibitions currently in subsection (c) into a single subparagraph to eliminate the possible confusion caused by having them set forth in three separate subparagraphs.

Recreational Fisheries

Question 45. The Administration bill proposes to make the MMPA's commercial fisheries' requirements applicable to certain recreational fisheries as well. What is the problem you are trying to fix with these proposed changes? Are there specific fisheries or categories of fishers that are the target of this proposal?

Answer. The Administration bill proposes these changes because certain non-commercial fisheries, including recreational and personal use fisheries, are known to incidentally take marine mammals. Of particular concern are situations where non-commercial fishermen use the same type of gear as commercial fishermen and deploy it in a similar manner such that it results in interactions with marine mammals. Some examples include crab pots, gillnets, trawls and seines in the Southeast and Gulf; personal use set gillnets, crab pots and trollers in Alaska; recreational shoreline casting in Hawaii; and Atlantic highly migratory recreational fishing. Currently, individuals in these non-commercial fisheries who take marine mammals are in violation of the take prohibitions of the MMPA. We would provide a take exemption to certain non-commercial fisheries consistent with that for commercial fisheries. The MMPA currently does not authorize NOAA Fisheries to actively monitor marine mammal bycatch in non-commercial fisheries or address it via the TRT or TRP development process. Amending the MMPA to include non-commercial fishing activities that result in frequent or occasional marine mammal bycatch would enable NOAA Fisheries to address all important sources of mortality and serious injury incidental to fisheries and rectify an inequitable provision of the MMPA, which, in some cases, requires NOAA Fisheries to address marine mammal bycatch in the commercial fishing sector while ignoring the same problem in the non-commercial fishing sector. This inequity undermines NOAA Fisheries' ability to work collaboratively with the commercial fishing industry. Additionally, it results in management solutions that do not fully address the problem.

Question 46. Reportedly, there are 2.2 million anglers who fish in salt water, on an average of 10 times a year. How can these proposed changes be implemented when there are so many fishers?

Answer. NOAA Fisheries acknowledges the large number of recreational anglers that fish in coastal and marine waters. This is precisely why the proposed amendments to Section 118 contained in the administration bill are focused on "listed fisheries," and do not specifically mention non-commercial or recreational fisheries in the proposed statutory language. This is also why the agency proposed to retain the

requirement for listing only commercial fisheries under Category III. This way, when the agency identifies a non-commercial fishery that results in frequent or occasional incidental mortality and serious injury of marine mammals, we would first list the fishery as Category I or II before we would incorporate them under a TRP or into a TRT. The agency does not anticipate the need to address marine mammal bycatch across the board in non-commercial fisheries, only in limited cases. This language would give us the flexibility to address marine mammal bycatch from all the problem sources, but is only expected to be applied to recreational fisheries in limited circumstances.

Question 47. Are there not more narrowly focused solutions that could target select groups of recreational fishers rather than making such broad changes?

Answer. There may be other approaches that would allow NOAA Fisheries to work with non-commercial fisheries that result in frequent or occasional incidental mortality and serious injury of marine mammals, but the proposal in the Administration bill would provide for a narrowly focused solution within the framework of section 118 and the processes that are used to address similar problems with commercial fisheries.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. FRANK R. LAUTENBERG TO DR. REBECCA LENT

Question 1. Regarding the definition of "harassment," it appears to me the Administration is abandoning the precautionary approach embedded in the MMPA. The Administration has set the bar pretty high, and its definition will allow unregulated activities with the potential to harm marine mammals. Why didn't you take the National Research Council's recommendation for a definition of harassment?

Answer. The Administration used the NRC recommendations as a starting point for revising the current harassment definition to clarify that the harassment definition should focus on those activities that result in biologically significant, harmful effects on marine mammals. The administration's bill achieves this goal. Certain additional agency concerns affected some of the specific language choices in the administration's proposed amendments to the definition.

Specifically, the definition of harassment proposed by the administration would:

(1) Make the definition more enforceable by eliminating the need to prove first that activities involve "pursuit, torment, or annoyance," terms that are currently undefined in the MMPA, before they can qualify as Level A or B harassment;

(2) Make explicit that those activities directed at marine mammals that are likely to disturb the animals, such as closely approaching, swimming with, touching or feeding marine mammals in the wild, are considered harassment; and,

(3) Clarify that Level B harassment generally means those acts that are likely to have biologically significant, harmful effects on marine mammals, rather than those that result in *de minimus* effects, which is an interpretation that some people have advocated and that could unnecessarily constrain the agency's resources and overburden the regulated community.

The Administration's definition of harassment differs from the NRC definition in three ways:

- The Administration's definition includes Level A harassment (not addressed by the NRC) and differs from the current definition in the MMPA solely by adding the term "significant potential."
- The Administration's definition changes the Level B threshold from "potential to disturb" to "likely to disturb" which provides a more appropriate delimitation concerning what activities should be covered under this part of the harassment definition. The NRC definition perpetuates an overly broad standard of Level B harassment, inasmuch as it would include even a very remote possibility that disturbance might occur.
- The NRC recommended the phrase "meaningful disruption of biologically significant activities." While the Administration definition differs, it captures the same concept of clarifying that Level B harassment means those acts that exceed a *de minimus* threshold. The NRC phrase may be too constraining if the term "biologically" is interpreted too narrowly. For either case, regulation or guidance could provide a clearer definition of terms.

While there are differences between the two definitions, the intent of the changes is similar—to clarify that Level B harassment means those acts that are likely to

result in biologically significant, harmful effects on marine mammals rather than those that result in *de minimus* effects. NOAA Fisheries does not believe the precautionary principles of the MMPA are undermined by this proposed definition or that the definition sets the bar too high.

Question 2. I am concerned about the inconsistencies in implementation of MMPA permitting requirements for marine mammal "takings." In an op-ed by a National Research Council scientist, Kenneth Brink, from Woods Hole Oceanographic Institution, NOAA's marine mammal protection policies were described as "wildly inconsistent." Will the Administration's proposed language address those inconsistencies, and if so, how?

Answer. The statement made by Dr. Brink was that "existing policies regarding marine mammals and sound in the ocean are well-intentioned, but they are wildly inconsistent." However, previously, Dr. Brink notes, "[research] permits are hard to obtain and researchers are subject to a lengthy review process. But when commercial operators, or even other scientists, actually run ships producing exactly the same sounds in the same location, they do not need research permits." Dr. Brink's statement indicates that he is unaware of the incidental harassment authorization program under section 101(a)(5) of the MMPA wherein those individuals who indirectly harass marine mammals also must obtain authorization, for example, for oceanographic research or commercial resource extraction.

Therefore, NOAA Fisheries does not see an inconsistency in the application of the MMPA or agency policy. NOAA Fisheries is currently drafting acoustic criteria for ensuring consistency for all activities, including scientific research that is directed toward marine mammals and maritime activities that might incidentally harass marine mammals while in the process of conducting research, commerce, or defense.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. JOHN F. KERRY TO MARSHALL JONES

Harassment Definition

Question 1. Three of the witnesses appearing today raise concerns with the Administration's proposal to only require an incidental take authorization for harassment under the MMPA if the activity can be shown to lead to "abandonment" or to "significantly alter" a natural behavior. Given our lack of knowledge about the likely impacts of various activities on marine mammals, won't it be impossible to know in some cases at the time an activity is proposed whether such activity would "cause disruption of natural behavioral patterns," such as migration, "to a point where such behavioral patterns are abandoned or significantly altered"?

Answer. At the outset, it should be noted that a large part of the Administration's proposed definition of "harassment," as applicable to military readiness activities, was enacted as part of the Defense Authorization Bill for Fiscal Year 2004 that was signed by President Bush and became Public Law No. 108–136 on November 24, 2003. We also continue to support a full reauthorization of the MMPA through passage of the Administration's proposal.

With this in mind, it is true that, while U.S. Fish and Wildlife Service (Service) continues to improve its ability to identify activities that could result in a significant negative response versus those that may have insignificant effects on marine mammals, there will continue to be instances where we cannot be certain of potential impacts. The Service believes the definition contained in Public Law No. 108–136 provides enough guidance to address military readiness activities where there is uncertainty regarding the effects of those activities, and note that further direction may be requested from the agencies on whether harassment may occur and whether an incidental take authorization would be recommended. This should help the implementing agencies focus on activities that may have biologically significant negative impacts.

Question 1a. Do you foresee any situations in which the use of the term "abandonment" could raise Level B harassment to impacts that are the equivalent of non-harassment lethal takes?

Answer. Activities that cause an animal to abandon an important behavioral pattern (either temporarily or permanently) could be considered harassment (*e.g.,* causing a female not to nurse or care for her young). If the activity were such that abandonment of the behavior resulted in death, the Service would consider that a "take" by killing under the MMPA. However, we recognize that the MMPA definition of "take" includes both kill and harass; harassment is considered "take," regardless of whether the harassment is Level A or Level B.

Question 1b. Isn't it the case that many activities that have the potential for serious impacts on marine mammals simply go unregulated?

Answer. It is possible that such activities occur. The Service makes every effort to work with Federal agencies, industry and the public to identify and regulate those activities that harass individual marine mammals and marine mammal stocks.

Question 1c. The House passed a DOD authorization bill without the third prong of the Administration's proposed definition, aimed at activities "directed at" marine mammals. Do you have any concerns with dropping this part of the definition, and if so, why?

Answer. As noted in the answer to the first part of this question, the Defense Authorization Bill for Fiscal Year 2004, Public Law No. 108–136, makes much of the Administration's original proposed definition applicable to military readiness activities, and the Department supports this definition. However, as we work toward a full reauthorization of the MMPA, we recommend that the Committee include the language aimed at activities that are directed toward specific marine mammals. The cumulative effects of repeated interactions between humans and marine mammals could result in negative impacts to an individual, group, or stock of marine mammals. Such activities should be regulated through appropriate permitting terms and conditions. This language will help enhance enforcement and education efforts by making it clear that activities directed at individuals or groups of marine mammals may be considered harassment without requiring the Service to demonstrate that the resulting disturbance of the animals was biologically significant.

DOD Provisions: Deletion of "Small numbers," "Specified Geographical Area"

Question 2. Could you explain how the "specified geographical area" standard is currently applied in the context of the Fish and Wildlife Service?

Answer. The Service has promulgated regulations authorizing the incidental taking of polar bears and Pacific walrus for oil and gas activities conducted in the Beaufort Sea and adjacent coast along the north slope of Alaska. The geographic area is specifically described to overlap the existing and projected area of oil and gas activities and the range of the Beaufort Sea polar bear population. Pacific walrus are not common in this area but do occur and are, therefore, included in the rule. The "specified geographical area" standard is used to define the boundaries within which the effects of the "specified activities" are analyzed to determine whether any taking that could result from those activities will be within the negligible impact level.

Scientific Permitting Issues—There is a lot of discussion concerning the need to fix the permitting process.

Question 3. Is the process at fault or do these cases highlight the need for a higher level of awareness from those seeking and issuing the permits?

Answer. The Service believes that the scientific research permitting process, though potentially rigorous, sets appropriate conservation standards while recognizing the need for research that may negatively affect marine mammals. However, we think that the process would benefit from better outreach and communication with the regulated public. We are working to address this issue, and discuss some of our efforts in our responses to subsequent questions.

Question 3a. What aspects of the permitting process are being or could be changed to improve this situation?

Answer. The Service is in the process of reviewing all of its permitting activities to determine how well they serve the public and provide for the conservation of the resources in question. We have sought public comment and developed a permits strategic vision and action plan (*Leaving a Lasting Legacy: Permits as a Conservation Tool,* a copy of which is enclosed for your reference and which can also be found at *http://permits.fws.gov*) to improve permitting services, while still ensuring species conservation.

One of our goals is to simplify and streamline the permitting process. For example, we have developed guidelines with the National Marine Fisheries Service (NOAA Fisheries) to consolidate review of joint applications and enable the agencies to issue a single permit in situations where proposed research activities include marine mammal species under both agencies' jurisdiction. In addition, the Service is reviewing and updating permit application forms to ensure a clearer information request from the public. We believe this will decrease the number of incomplete applications we receive.

The Service makes available to the public, via our website at *http://international.fws.gov/permits/marinemammals.html,* downloadable versions of permit

applications, fact sheets, and a list of frequently asked questions. One of the improvements of the permitting process that we are currently investigating is the online submission of permit applications and the acceptance of credit cards for application fee payments. In addition, we are developing better outreach materials for the public by updating and expanding our existing fact sheets on marine mammals to better address specific activities such as scientific research.

Question 3b. How many FTEs does your agency have for processing authorization requests under the MMPA?

Answer. The Service does not assign FTEs exclusively to the processing of scientific permit applications for MMPA species. Instead, it relies on program staff with knowledge of various scientific and administrative disciplines for technical review and processing of applications. The Service estimates that it has 10 staff persons who each spend a small portion of their time on MMPA scientific research permits in addition to their other responsibilities.

Question 3c. Are most of the applications processed within the statutory time frame?

Answer. The Service makes every effort to process applications received within the statutory time frame. However, as described below, most of these applications are complex and include a substantial consultative process. Given these factors, we estimate that 65 to 70 percent of the final determinations on a permit application extend beyond the statutory time frame (30 days after the close of the public comment period).

Permit applications for scientific research undergo a four-stage review process. Following initial submittal, an application is reviewed for completeness and, if necessary, the researcher is contacted to provide additional information. As required under the Act, we transmit the complete application to the Marine Mammal Commission (MMC) for its review and concurrently publish a notice of receipt of application in the *Federal Register* for public review and comment.

The Service consults with its appropriate Regional Offices for review and comment, and, when proposed research activities involve live animals, the Service consults with the Animal and Plant Health Inspection Service (APHIS) of the U.S. Department of Agriculture to ensure that any involved facility is registered for scientific research under the Animal Welfare Act (AWA). After the close of the 30-day public comment period, the researcher may be contacted to provide additional information to address recommendations by the MMC or other commenters.

The Service reviews all permit requests for compliance with the National Environmental Policy Act (NEPA), and must consider whether the issuance of a permit affects non-targeted species listed under the Endangered Species Act (ESA). Also, for research targeting southern sea otters and manatees, both ESA-listed species, the Service must also review the permit for compliance with the requirements of the ESA; these assessments –often add to the processing time frame. Finally, after consideration of all the information, the Service makes a decision to issue or deny the permit.

Question 3d. How will requirements under NEPA be integrated with those of MMPA, and will the interaction between these two statutes lead to any difficulties in getting authorization requests processed in a timely manner?

Answer. As mentioned in our previous response, to the extent possible, all consultation and review requirements are addressed concurrently during the processing of an application for a scientific research permit. In certain instances, the preparation of an environmental assessment or impact statement under NEPA may lengthen the process.

Question 3e. Could general authorizations be one approach? How would that work?

Answer. Any proposed research activities that may result in death or serious injury are probably better served through the existing permitting process. However, general authorizations could possibly be developed for: (1) certain generic categories of research activities; (2) species-specific research; or (3) non-intrusive research involving captive animals. Under such a mechanism, the applicant should still be required to provide information that shows that the proposed activities would further a bona fide scientific purpose. Similarly, regulations implementing such authorizations should provide an opportunity for the public to review and comment on such overarching activities and their anticipated effects as well as address any possible take occurring in the context of obtaining scientific information beneficial to the conservation of the species.

Enforcement

Question 4. Has the FWS been enforcing the MMPA provisions against intentional interactions with marine mammals by individuals? If not, why not?

Answer. The Service Office of Law Enforcement upholds the MMPA and enforces its prohibitions on the hunting, killing, capture, or harassment of marine mammals. Service special agents investigate individuals and organizations that violate this law. Many marine mammal species, however, live in geographically remote areas that are relatively inaccessible, making it difficult to apprehend violators in the act of lethal take or harassment. Even when such violations are reported and investigated after the fact, officers may be unable to obtain sufficient evidence to support MMPA charges.

The Service, however, works diligently to safeguard marine mammal species. In the Southeast, for example, the Office of Law Enforcement protects manatees by addressing both "intentional" take (*e.g.,* tourists who harass the animals by attempting to feed, handle, or touch them) and "unintentional" take (*e.g.,* boat collisions).

As previously noted, changes to the definition of harassment contained in the Administration's proposed MMPA reauthorization, which add clarity and make explicit that activities that are directed at marine mammals in the wild that are likely to disturb them constitute harassment, will help enhance the Service's ability to enforce these provisions.

Question 4a. Are there examples of activities that constitute "incidental takes" that are not being regulated under the MMPA?

Answer. The Office of Law Enforcement attempts to investigate all known instances of MMPA violations, including "incidental takes." Although only those who "knowingly" violate this law are subject to criminal penalties, charges can be brought under civil procedures against those involved in incidental or unintentional take.

However, incidental take may not always be readily apparent. For example, we are also concerned about the potential for incidental takes associated with activities related to air taxi operations and air transport companies operating either point to point flights or charter flights in the vicinity of marine mammal high use areas. We are working with air taxi operators and air transport companies and the Federal Aviation Administration to identify these areas and appropriate routes and flight altitudes to minimize potential disturbance. We have distributed this information directly to companies and pilots and have also worked with the FAA to have this information included on flight navigation charts.

Co-Management

Question 5. Under the Administration's proposed bill, Alaska Natives would be included in the management process of depleted stocks, and in making depletion findings. What is the rationale for bringing Alaska Natives into the management of depleted marine mammal stocks when this has been a Federal agency role in the past?

Answer. The model for the Administration's proposed bill is the existing agreement between NOAA Fisheries and the Alaska Eskimo Whaling Commission that governs the taking of bowhead whales. While this agreement is conducted under a separate authority, it is a successful harvest management agreement for an endangered species. As demonstrated by that agreement, subsistence harvest of a depleted stock can be cooperatively managed in an effective manner.

By including the Alaska Native community in the management process, cooperative harvest management agreements would provide an additional management tool that could play an important role in effective conservation and management of depleted species or stocks without the requirement for a formal rule-making. Under current law, the only way to manage subsistence harvest of depleted stocks or species is through regulation. Regulations for subsistence harvest can only be developed for depleted species (including those that are depleted because they are listed under the ESA) if the managing agency finds that subsistence harvest is detrimental to population recovery. These conditions have only been met for one stock (beluga whales in Cook Inlet). The Administration's proposal would provide a mechanism to manage harvest of depleted stocks without having to meet the existing restrictive criteria.

For all species, regardless of status, the ability to manage subsistence harvest through cooperative harvest management agreements provides an additional management tool that can be useful whether or not harvest levels are related to population status. In addition, the community supports "management prior to depletion" through regulation of subsistence harvest in order to prevent depletion. It is committed to and engaged in conservation measures for depleted and non-depleted stocks. The Administration's harvest management proposal is designed to enhance

the achievement of the conservation goals of the MMPA by providing a way for the community to more effectively focus its commitment and expertise.

Question 5a. Do you think the current methods of consultation and opportunity for notice and hearing by interested members of the public are not adequate for the Alaska Natives to contribute to the process?

Answer. Our experience through the implementation of Section 119 shows that the Alaska Native community is an interested and knowledgeable partner in gathering information about subsistence harvested species. For many on the coast, their lifestyle depends upon the continued availability of these species, which is recognized in Section 101(b)—an exemption specifically to support subsistence take, providing it is done in a non-wasteful manner. Explicit inclusion of the community in the management process recognizes their unique status and capability to contribute information and insights potentially outside of the traditional western approach to science and management.

Question 5b. If this public consultation process is not adequate, why aren't other interested parties being included in the management consultation?

Answer. The Alaska Native community has a unique role due to the subsistence exemption under section 101(b) and has the potential to contribute significant conservation actions through support of regulation of subsistence harvest. As the potential management actions relate to subsistence harvest and a limitation of that harvest, it is appropriate to limit the consultation to subsistence hunters and their representatives who are directly affected by such proposals. However, once a management approach has been developed and a management plan drafted, our proposed process appropriately includes an opportunity for public review and comment.

Animal and Plant Health Inspection Service (APHIS)

Question 6. Currently, wild marine mammals fall under the authority of NMFS and FWS in the wild. However, the primary authority gets passed to APHIS if the marine mammals are placed in public displays. Does FWS play any role in the oversight of marine mammals in public displays?

Answer. The Service does play a role in the oversight of marine mammals in public displays. Under the authority of Sections 107(a) and 112(c) of the MMPA, the Service entered into an agreement with APHIS, as well as NOAA Fisheries, to facilitate and promote the consistent, effective and cooperative implementation of all standards governing the humane care, handling, treatment, and transportation of marine mammals, both pursuant to their take or import, and during their captivity. Additionally, under the authority of Section 104(c)(1) of the MMPA, the Service issues permits for the take or import of marine mammals for public display purposes. Such public display permits include conditions on the care and humane maintenance of the animals. Finally, while APHIS has primary responsibility for ensuring that public display facilities maintain marine mammals consistent with the requirements of the AWA, Service regulations under 50 CFR 13 Subpart D require permit holders to allow for Service inspection of records, facilities, etc. Thus, the Service does have an active role in the oversight of publicly displayed marine mammals.

Question 6a. Does APHIS ever consult with FWS on issues regarding the care and maintenance of captive marine mammals? Would that be useful?

Answer. APHIS and the Service frequently consult on issues regarding the care and maintenance of captive marine mammals. The Service also meets with APHIS, MMC, NOAA Fisheries, and Department of State representatives on a regular basis to ensure broad-spectrum oversight of captive-held marine mammals. Finally, the Service and APHIS consult on an *ad hoc* basis whenever queries or concerns arise regarding a specific facility's maintenance of publicly displayed marine mammals. These types of consultations are an essential part of the Service's oversight of marine mammals in public displays.

Question 6b. Concerns have been raised over the years with respect to the capabilities of APHIS to ensure adequate care for marine mammals on display (*e.g.,* with respect to Suarez Circus and the dolphin "petting pools"). What additional role might FWS play to ensure the well being of these animals?

Answer. The Service believes that the veterinarians at APHIS have the expertise necessary to oversee marine mammals held in captivity. As stated in our responses above, the Service currently plays an active role in ensuring the healthful maintenance of publicly displayed marine mammals. Therefore, the Service believes an additional role is not necessary at this time to ensure the adequate care of these animals.

With regard to the Suarez Circus, mentioned in the question above, the Service determined that the circus was not maintaining marine mammals, *i.e.* polar bears,

consistent with the requirements of the Act or consistent with the conditions of the Service issued permit and, therefore, took appropriate actions.

Sea Otters

Question 7. Southern sea otters (found in California), listed as threatened under the ESA, were steadily increasing until their population began to decline in 1995; record numbers of dead otters have washed ashore in California this year.

Answer. It is correct that the southern sea otter population began to decline in 1995; however, from 2000 to 2003, southern sea otter population counts were stable or increasing with a record high of 2,505 sea otters counted in spring 2003. Beginning in April 2003, we noted a dramatic increase in the number of sea otter carcasses washed ashore. We are currently investigating the possible causes of mortality.

Question 7a. Do you agree with Ms. Young's written testimony that proposed changes could result in the authorization of incidental take of these otters?

Answer. No, we do not agree with Ms. Young's testimony that proposed changes could result in the authorization of incidental take of southern sea otters. There appears to be some confusion with respect to Section 118(a)(4) of the MMPA and Public Law 99–625. Section 118(a)(4) excludes southern (California) sea otters from provisions of section 118 of the MMPA with respect to authorization of incidental take in commercial fisheries, and the Administration's proposal would not alter the provision. In addition, Section 101(a)(5)(E)(vi) makes clear that incidental take of southern sea otters during commercial fishing cannot be authorized under the MMPA.

Question 7b. Was that the intention of these proposed changes?

Answer. The Administration's proposal is narrowly tailored to cover only the information and monitoring provisions of Section 118. The intent of our proposed changes is to allow for collection of information on southern sea otter/fishery interactions. Regardless of current prohibitions on incidental take of sea otters in fisheries, there continues to be a concern that interactions between sea otters and fisheries are occurring. Without data on the nature and magnitude of these interactions it is difficult for state and Federal agencies to manage fisheries in a manner that is consistent with sea otter conservation and recovery as well as equitable for the fishing community.

Question 7c. Do the proposed changes still make sense, given the recent decline of this species?

Answer. The proposed changes clearly benefit recovery of the southern sea otter. Incidental take in fisheries continues to be a concern. With better information, we can work together with fisheries interests to eliminate the potential for negative interactions with sea otters.

Action Deadlines

Question 8. The 1994 MMPA Amendments established several specific deadlines for agency action. For example, section 104(c)(3)(C) directed the Secretary, within 120 days of enactment, to issue a general authorization and implementing regulations allowing bona fide scientific research involving taking by Level B harassment. Also, section 113(c) directed the Secretary of the Interior to review the effectiveness of U.S. implementation of the Polar Bear Agreement and submit a report of its findings to Congress by April 1995. Neither of these actions has been completed. What are the agency's plans for carrying out these statutory mandates?

Answer. Although the Service is aware of the General Authorization for scientific research under Level B harassment (Section 104(c) (3)(C) of the Act, we have as yet not developed the implementing regulations. As we discuss below, considerable time has been spent by staff addressing issues related to developing our polar bear trophy import regulations. Our next priority is to develop the regulations on the general authorization for scientific research under Level B harassment. We anticipate that the scientific research permitting process will be less cumbersome once regulations are developed to implement the Level B Harassment provision.

Review of the effectiveness of the U.S. implementation of the Polar Bear Agreement is still in progress. A major component of the U.S. implementation is the development of an agreement with the Russian Federation on the conservation of the Alaska-Chukotka polar bear population. That agreement was formally signed in October of 2000, and the Senate recently gave its advice and consent for the ratification of the agreement. Domestic legislation necessary to give effect to the agreement is being developed by the Administration.

Question 8a. Other actions to implement the 1994 amendments also have yet to be taken. Please describe the status of the following actions and the agency's plans to complete them:

- *the issuance of deterrence guidelines under section 101(a)(4);*

Answer. For species under the jurisdiction of the Service and managed under MMPA, we believe that the small amount of interactions do not necessitate the development of deterrence guidelines at this time. Lacking specific issues or types of activities that could be used to define and develop appropriate regulations, we have chosen to use other mechanisms to address specific issues that have arisen and meet overall conservation goals of minimizing disturbance.

- *revision of small-take regulations to reflect the addition of section 101(a)(5)(E);*

Answer. The Service understands that NOAA Fisheries is developing uniform, national standards, and a process for issuing authorizations under 101(a)(5)(E) of the MMPA for takes of endangered and threatened marine mammals in commercial fisheries. The Service will engage with NOAA Fisheries and make sure the needs of species under our jurisdiction are addressed. Although we believe the incidental take of southern sea otters may be occurring in the California fisheries, these mammals are not subject to section 101(a)(5)(E).

- *revision of regulations to reflect the numerous changes to the Act's permit provisions (section 104); and*

Answer. The Service has not yet fully implemented all of the 1994 Amendments to Section 104 of the Act. Based on congressional and public interest, the Service has used available resources to develop our polar bear trophy import regulations. Considerable time has been spent by staff in gathering and analyzing data, working with the Canadian Wildlife Service, and resolving a number of complex technical issues concerning the amendments, other sections of the MMPA, and the 1973 International Agreement on the Conservation of Polar Bears. We are currently working on a proposed rulemaking to review new information received from Canada to approve an additional polar bear population, the Gulf of Boothia, for the importation of sport hunted trophies. As noted above, our next priority is to develop the regulations on the general authorization for scientific research under Level B harassment. Once those regulations are finalized, we will assess priorities to revise and update current regulations for the processing of other types of permit applications.

- *the multi-party review of the Polar Bear Agreement called for under section 113(b).*

Answer. Preparation of the multi-party review is in progress. Initial preparation involved formal contact with the other signatory nations. Initial report preparation began with the receipt of information from the other parties and will be completed with limited information provided by the Russian Federation.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. OLYMPIA J. SNOWE TO VADM CHARLES W. MOORE, JR.

Question 1. Ocean Noise, Harassment, and Permit Issues—Due to a court injunction on the Navy's use of low frequency active sonar, the Navy is only allowed to train with this sonar in a very limited area. In fact, I understand that the Navy has only been able to operate this sonar four times since the court action. What kind of research, if any, is the Navy doing on marine mammals in conjunction with its limited operation of LFA sonar?

Answer. Pursuant to the terms of regulation governing the Taking of Marine Mammals Incidental to Navy Operations of Surveillance Towed Array Low Frequency Active Sonar, set forth in 50 CFR 216.185, the Navy is obligated to conduct all monitoring and research required under the Letter of Authorization. The current Letter of Authorization requires that Navy research must include one of the following: (1) the behavioral reactions of cetaceans to sound levels that were not tested during the research phase, specifically between 155 dB and 180 dB, (2) the responses of sperm and beaked whales to LF sonar signals, (3) the habitat preferences of beaked whales, (4) passive acoustic monitoring for the possible silencing of calls of large whales using bottom-mounted hydrophones, and (5) long term, cumulative effects on a stock of marine mammals that is expected to be regularly exposed to LFA and monitor it for population changes throughout the five-year period. Currently the Navy is funding research studies on the bio-acoustic impacts of low frequency sounds upon marine mammals.

Question 2. If the Administration's proposed definitions of harassment were enacted, what other naval activities, besides LFA use, would and would not qualify as Level A and Level B harassment? Please provide specific examples.

Answer. The current statutory definition of "harassment" focuses on the "potential" to injure [Level A harassment] or the "potential" to disturb [Level B harassment] marine mammals. This sweeping statutory language has caused regulatory agencies to opine in the past that Level B harassment "is presumed to occur when marine mammals react to the generated sounds or visual clues"—in other words, whenever a marine mammal notices and reacts to an activity, no matter how transient or benign the reaction. Thus, any naval activity to which marine mammals react potentially can be viewed as Level B "harassment." The strictness of this interpretation caused the National Research Council, in its 2000 report, entitled *Marine Mammals and Low Frequency Sound,* to state, "If [this] interpretation of the law for Level B harassment (detectable changes in behavior) were applied to shipping as strenuously as it is applied to scientific and naval activities, the result would be crippling regulation of nearly every motorized vessel operating in U.S. waters." The NRC then went on to say, "It does not make sense to regulate minor changes in behavior having no adverse impact; rather, regulations must focus on significant disruptions of behaviors critical to survival and reproduction, which is the clear intent of the definition of harassment in the MMPA."

The change in the definition of Level B "harassment' that DOD is proposing would do exactly as the NRC suggests. It would exclude transient, biologically insignificant effects from regulation while retaining regulation of biologically significant effects. Not only death and injury would be regulated, but also the abandonment or significant alteration of behaviors critical to survival and reproduction. Thus, naval activities such as ship shock testing, the use of SURTASS LFA, and certain military research activities associated with probable Level B harassment (under the proposed modification) would still require small take authorizations, while routine movement of ships, over-flight of missiles across beaches occupied by pinnipeds, and certain military testing activities would not.

As for Level A harassment, DOD already exercises extraordinary care in its worldwide activities, resulting in fewer than 10 deaths or injuries annually (as opposed to 4800 deaths annually from the commercial fishing industry). These deaths and injuries are associated with accidental ship strikes of marine mammals. The proposed modification of the definition of Level A harassment would not substantially alter the list of naval activities subject to regulation.

Question 3. As a government branch that frequently seeks MMPA permits, does the Navy recommend other changes to the overall NOAA process for issuing permits?

Answer. The Administrations' MMPA proposal was carefully coordinated with NOAA, DOD, and other relevant agencies. With respect to the change in the definition of "harassment," the proposal adopts verbatim a reform proposal developed during the prior Administration by NOAA, U.S. Fish and Wildlife Service, Marine Mammal Commission, and the Navy and applies it to military readiness activities. Additionally, the ruling on the Preliminary Injunction in the SURTASS LFA litigation revealed other structural deficiencies in application of the MMPA to military readiness activities that are addressed in the Administration's MMPA proposal. Finally, a national defense exemption provision was added to bring the MMPA in line with other environmental laws, which contain similar provisions. The main focus of the Administration's proposal seeks narrow, targeted modifications to the MMPA and its permitting processes. The recent Summary Judgment ruling in the SURTASS LFA litigation is being reviewed to determine if any additional changes are required. If changes are required, DOD will coordinate these changes with NOAA and other interested agencies.

Question 4. What does the Navy do that would not qualify as an activity that is "necessary for national defense?" Couldn't the Navy argue or a judge interpret that—in some way or another—everything the Navy does is necessary for national defense?

Answer. The modifications to the MMPA that DOD is seeking, including the national defense exemption, are designed to address encroachment associated with the application of the MMPA to military readiness activities. This term is currently defined by section 315(f), Pub. L. No 107–314 as: "(A) all training and operations of the Armed Forces that relate to combat; and (B) the adequate and realistic testing of military equipment, vehicles, weapons, and sensors for proper operation and suitability for combat use." The definition then provides a list of administrative, support, and logistical activities that are not considered "military readiness activities." Given the focus of DOD's proposed MMPA modifications on military readiness activities, relation of that term to training, operations, and testing associated with combat or combat use, and limitations placed on the term regarding administrative,

support and logistical activities, DOD does not intend to argue that all its activities are "necessary for national defense."

Question 5. How can you assure me and the general public that the privilege to obtain an exemption would be limited to the cases of only the most critical defense needs?

Answer. Although DOD believes that it is unacceptable as a matter of public policy for indispensable readiness activities to require invocation of emergency authority—particularly when narrowly tailored modifications of the MMPA would enable both essential military readiness activities and protection of marine mammals to continue, DOD also believes that every environmental statute should have such an authority as an insurance policy. DOD further believes that it would only be necessary to invoke such an emergency authority as a failsafe mechanism.

Question 6. Why is two years, as the House bill proposes, an appropriate maximum length for an exemption?

Answer. Existing statutory and regulatory exemption authorities are usually renewable and limited to between one and three years. A two-year exemption period, with appropriate extensions would allow for sufficient time in which to resolve any underlying statutory or regulatory obstacles, monitor impacts to marine mammals and operations to determine if mitigation measures are required, and implement appropriate mitigation measures or statutory/regulatory mechanisms that preserve necessary operational flexibility.

DOD provisions: Impacts from Use of Mid-frequency Sonar

Question 7. Describe all current Navy activities that have the potential to disrupt natural behaviors of a marine mammal or marine mammal stocks in the wild—the current statutory standard-for which the Navy has not sought an incidental take authorization under the MMPA. Which of these does the Navy believe would not constitute harassment under the Administration's proposed definition?

Answer. The current statutory definition of "harassment" focuses on the "potential" to injure [Level A harassment] or the "potential" to disturb [Level B harassment] marine mammals. This sweeping statutory language has caused regulatory agencies to opine in the past that Level B harassment "is presumed to occur when marine mammals react to the generated sounds or visual clues"—in other words, whenever a marine mammal notices and reacts to an activity, no matter how transient or benign the reaction. Thus, any naval activity to which marine mammals react potentially can be viewed as Level B "harassment." The strictness of this interpretation caused the National Research Council, in its 2000 report, entitled *Marine Mammals and Low Frequency Sound,* to state, "If [this] interpretation of the law for Level B harassment (detectable changes in behavior) were applied to shipping as strenuously as it is applied to scientific and naval activities, the result would be crippling regulation of nearly every motorized vessel operating in U.S. waters." The NRC then went on to say, "It does not make sense to regulate minor changes in behavior having no adverse impact; rather, regulations must focus on significant disruptions of behaviors critical to survival and reproduction, which is the clear intent of the definition of harassment in the MMPA."

The change in the definition of Level B "harassment" that DOD is proposing would do exactly as the NRC suggests. It would exclude transient, biologically insignificant effects from regulation while retaining regulation of biologically significant effects. Not only death and injury would be regulated, but also the abandonment or significant alteration of behaviors critical to survival and reproduction. Thus, naval activities such as ship shock testing, the use of SURTASS LFA, and certain military research activities associated with probable Level B harassment (under the proposed revision) would still require small take authorizations, while routine movement of ships, over-flight of missiles across beaches occupied by pinnipeds, and certain military testing activities would not.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. JOHN F. KERRY TO VADM CHARLES W. MOORE, JR.

Question 1. Isn't the LFA-sonar situation somewhat of an outlier situation in terms of DOD's overall experience with getting incidental take authorizations under the MMPA?

Answer. The permitting challenges associated with LFA highlight similar problems we have previously encountered. In DOD's overall experience, discrete challenges to obtaining take authorizations presented themselves and at times caused delay, added expense, and reduction in training fidelity. LFA is significant in that it exposes the Marine Mammal Protection Act as possessing not a discrete chal-

lenge, but a variety of problems stemming from provisions that are vague, impractical from a scientific basis, and responsible for preventing the Navy from deploying mission-essential platforms notwithstanding the completion of a $10-million scientific research project conducted by leading independent scientists. The challenges posed by the vague definition of harassment and other technical flaws in the MMPA will, if left unamended, only lead to increased restrictions on training, scientific research, and exploration due to the decision handed down in August 2003 by the Federal District Court of Northern California that will issue a permanent injunction on employment of LFA.

Diesel Submarine Capabilities

Question 2. In your written testimony, you note that "new ultra-quiet diesel-electric submarines armed with deadly torpedoes and cruise missiles are proliferating widely." You also state that of the 380 submarines owned by 41 countries, more than 300 are quiet diesel submarines. Are these "fast" or "slow" submarines? Especially for the slower submarines, are there other ways to detect them besides use of LFA sonar, such as global satellite and other methods of detecting them when they must surface?

Answer. All diesel submarines can travel "fast." Nominal top speed underwater is 17 to 20 knots (19.6 to 23 mph). High speeds deplete their batteries and make them more vulnerable to passive sonar detection. Standard diesel electric practice is to operate at slow speeds (three to five knots) or to loiter in the vicinity of the projected track of a target or targets. At slow speeds and when "hovering" underwater, the stealth of advanced diesel submarines makes them essentially undetectable by passive sonar at the ranges required for cueing tactical platforms. The only reliable method of long-range detection is low frequency active sonar. LFA provides long-range active detection, such that a surface ship emitting an active LFA signal would be aware of the presence of an enemy submarine before it was within the submarine's effective weapon range. As for other methods of detecting submarines, the SURTASS LFA Environmental Impact Statement provides a detailed analysis of other options for the surveillance and detection of submarines. This includes the Sound Surveillance System (SOSUS), other passive and active sensors, and non-acoustic alternative underwater detection technologies such as radar, laser, magnetic, infrared, electronic, electric, optical, hydrodynamics, and biologics. Satellite detection of a surfaced submarine would be hit or miss, with the odds of a satellite track intersecting the surfaced submarine's track being very low.

Foreign Diesel Submarine Numbers

Question 3. In your written testimony, you note that "new ultra-quiet diesel-electric submarines armed with deadly torpedoes and cruise missiles are proliferating widely." You also state that of the 380 submarines owned by 41 countries, more than 300 are quiet diesel submarines. How many of these 300 quiet submarines are owned by our allies? Of the ones that are not, how many of these have been built in the last ten years?

Answer. There are currently more than 150 submarines in the navies of potentially unfriendly countries other than Russia. Approximately 45 of these are modern, non-nuclear boats. About 45 more are on order worldwide, principally from German and Russian shipyards. Jane's Underwater Warfare Systems 2003–2004 indicates that as of 2002 at least 60 diesel submarines have been built by our non-allies in the last 10 years. In the future, it is projected that 75 percent of the submarines in the rest of the world will have advanced capabilities, most likely including air-independent propulsion that allows 30 to 50 days of submerged operations without surfacing or snorkeling. When these units are in a defensive mode, that is, not having to travel great distances or at high speed, they have a capability nearly equal to that of the modern nuclear submarine. Quieting technology is expected to proliferate, which will render these submarines difficult to detect, even with the latest anti-submarine warfare passive sonar equipment; and they may be armed with highly capable weapons.

In the March 2003 declaration of the Commander of the U.S. Seventh Fleet (which includes the Western Pacific, Indian Ocean, and Persian Gulf), Vice Admiral Robert F. Willard stated, "On 3 June 2002, China placed a $1.6-billion order with Russia for eight additional Kilo-class diesel submarines to augment the four they already have. India is negotiating with Russia for two diesel attack submarines to be built in Russia (with as many as ten more to be assembled in India later) and up to 12 French Scorpene-class submarines in the coming years. India's updated Kilo-class submarines have been fitted to launch four subsonic Russian anti-ship missiles, and India is working with Russia to develop an anti-ship and land-attack missile, a 300-kilometer supersonic weapon that India plans on producing by 2004

for use on surface ships and Indian-built nuclear-powered submarines. Pakistan launched its first indigenously assembled submarine, a French Agosta 90B-class diesel boat; and the next unit in this class will have air-independent propulsion. In addition, Malaysia, Republic of Korea, Japan, and Australia are taking delivery of or have ordered advanced, stealthy submarines armed with state-of-the-art missiles and torpedoes capable of striking targets at sea or on land far from their homeports. Although smaller numbers of Russian ballistic missile and nuclear attack submarines remain a priority, they are continuing to maintain some of their most modern and highly capable Kilo-class diesel submarines. When all these submarines come into service, Asia's key waterways could become more crowded—and more dangerous—below the surface than they were at the height of the Cold War."

Use of LFA Sonar

Question 4. One potential downside of using LFA sonar that some experts have raised is whether its use could alert other countries as to the location of the submarine sending out the LFA sonar signal. Is there any merit to this concern?

Answer. The SURTASS LFA system is deployed and operated from a surface ship, submarines do not have this capability. Although it is true that the SURTASS LFA ship cannot remain undetected while operating and has no defensive systems, its strengths far outweigh these deficiencies. LFA transmits a varying signal designed to maximize detection, thereby making countermeasures and evasive actions by threat submarines unlikely. The SURTASS LFA sonar system provides a long-range detection operating with other naval forces and under the protective arm of the combined air, surface, and submarine combatant units. While hostile submarines will detect LFA, they will not be able to close and neutralize the SURTASS ship without being detected and targeted by combatant units.

Question 5. If the Administration's definition of harassment were adopted, would the Navy need to seek an authorization for LFA-sonar?

Answer. Yes.

Question 6. Isn't it the case that the use of mid-range sonar by the Navy and/or NATO forces has been connected to strandings of beaked whales and other species in the Bahamas?

Answer. A combination of factors acting together, including the presence of a strong surface duct, unusual underwater bathymetry, intensive active use of multiple sonar units over an extended period of time, a constricted channel with limited egress, and the presence of beaked whales that appear to be sensitive to the frequencies produced by these sonars has been established as the most likely cause of the 15–16 March 2000 stranding event in the Bahamas. The interim results of the investigation into this event are described in the *Joint Interim Report, Bahamas Marine Mammal Stranding Event of 15–16 March 2000,* issued by the Navy and National Marine Fisheries Service in December 2001.

For additional granularity the following is an excerpt from that report:

> "Based on the way in which the strandings coincided with ongoing naval activity involving tactical mid-range frequency sonar use in terms of both time and geography, the nature of the physiological effects experienced by the dead animals, and the absence of any other acoustic sources, the investigation team concludes that tactical mid-range frequency sonars aboard U.S. Navy ships that were in use during the sonar exercise in question were the most plausible source of this acoustic or impulse trauma. This sound source was active in a complex environment that included the presence of a strong surface duct, unusual underwater bathymetry, intensive active use of multiple sonar units over an extended period of time, a constricted channel with limited egress, and the presence of beaked whales that appear to be sensitive to the frequencies produced by these sonars. The investigation team concludes that the cause of this stranding event was the confluence of the Navy tactical mid-range frequency sonar and the contributory factors noted above acting together. Combinations of factors different from this one may be more or less likely to cause strandings."

Question 7. Haven't there been other similar strandings in connection with the use of this sonar, for example in the Canary Islands?

Answer. The Canary Islands stranding occurred coincident with a naval exercise sponsored and controlled by the Spanish Navy from 16–26 September 2002. This Spanish invitational exercise involved over 50 naval assets, and was conducted in the Strait of Gibraltar and Eastern Atlantic (in and around the Canary Islands).

The tactical exercise included the following types of ships: aircraft carrier, frigate, amphibious assault, mine warfare, survey, and auxiliary, as well as aircraft and submarines from Spain, Turkey, Poland, Italy, Greece, Germany, France, United

Kingdom, and the United States. During this exercise, hull-mounted, mid-frequency sonars were activated. In addition, there were similar factors in this stranding to those in the Bahamas:

a. extended use of numerous hull mounted sonars;
b. deep to shallow water bathymetry; and
c. the nature of the ship configuration used during the exercise and its possible impact on whale movements.

Shortly after the stranding both the Assistant Secretary of the Navy for Installations and Environment and the Commander in Chief, U.S. Naval Forces Europe, offered the assistance of U.S. scientists to assist in the examination of the whale carcasses that was not accepted. To date, neither the U.S. Navy nor NOAA Fisheries have received the final report of the Anathomo-Pathologic Study made by scientists on the Canary Islands relating to the cause of the stranding event.

DOD Provisions: Impacts from Use of Mid-range Sonar

Question 8. With respect to the recent incident in the Haro Strait, was similar technology being used?

Answer. Yes, USS SHOUP's AN/SQS–53C(V)4 Hull Mounted Sonar with Kingfisher avoidance was used as an integral component of a Swept Channel and Surface Ship Small Avoidance exercise. The object of this exercise is to navigate in a confined area, in a condition of heightened readiness, coordinate the use of and reporting of sensor information, and to detect and avoid other submerged objects. The impetus for this training was the damage done to USS PRINCETON (CG 59) and two other ships by mines in the Arabian Gulf during Operation Desert Storm in 1991. All U.S. Navy ships are required to conduct a Swept Channel exercise at least once every three months to maintain this basic readiness skill.

DOD Provisions: Impacts from Use of Mid-range Sonar

Question 9. Did Navy seek an authorization for this activity? Why not?

Answer. Navy did not seek a Letter of Authorization under the MMPA, as there was at no time prior to conducting this routine exercise, any indication that any statutory threshold would be crossed.

DOD Provisions: Impacts from Use of Mid-range Sonar

Question 10. What are the findings of the necropsies of the dead porpoises found in the area?

Answer. The necropsies are being carried out under the authority of National Oceanic and Atmospheric Administration (NOAA) Fisheries. Results are not expected until mid to late October. I cannot overstress the importance of waiting for the results of the necropsies before drawing any final conclusions regarding the effect, if any, of USS SHOUP's use of sonar. The necropsies should help experts better determine whether there was any direct causal link between sonar usage and the deaths. We support NOAA Fisheries' retention of Dr. Darlene Ketten, one of the world's foremost experts in this field of study, to oversee these scans and necropsies. Dr. Ketten played a similar key role in the inquiry into the Bahamas stranding event to which you refer above. However, please note that at least six of these seventeen reported strandings occurred prior to USS SHOUP getting underway on May 5, 2003. Two of the strandings were discovered on May 6, 2003, and the remaining five were discovered seven to fifteen days after May 5, 2003. Pending release of the necropsy findings, strandings such as these are a known and expected annual occurrence in the Puget Sound region as a result of known disease pathogen and normal mortality.

DOD Provisions: Impacts from Use of Mid-range Sonar

Question 11. A Navy report issued on May 13 notes that "natural behavioral patterns were not abandoned or significantly altered." Does this mean that the Navy does not believe this activity would require an authorization under the Administration's proposed new definition of harassment, even though similar sonar has been connected to the deaths of other marine mammals?

Answer. Commander, U.S. Pacific Fleet has not yet issued any formal report on the May 5, 2003 Haro Strait allegations. The final report of the inquiry by Commander, U.S. Pacific Fleet will be released shortly after completion of NOAA Fisheries' report on the necropsies of 16 stranded harbor porpoises. The Pacific Fleet cannot complete its report until the necropsy results are known. Navy has been advised that NOAA Fisheries should make its findings available mid to late October, although the release date could slip into November.

Prior to May 5, the Navy did not believe that potential environmental effects of the SHOUP exercise would require authorization under the MMPA. It is the Navy's position that an activity that does cause marine mammals to strand would be regulated under the Department of Defense's proposed amendment to the MMPA. The outcome of the SHOUP inquiry will provide more information on the Navy's determinations for authorizations for future exercises. The instance in which sonar was implicated in the strandings of marine mammals—the Bahamas incident—involved a particular type of animal, the beaked whale, and a different set of environmental and operational circumstances than that found during the SHOUP exercise.

Impacts from Use of Mid-range Sonar

Question 12. Did the Navy have an authorization from NMFS under MMPA for the use of mid-range sonar in the Bahamas? In the Canaries? For dropping live ordnance in the Gulf of Maine? If not, why not?

Answer. The MMPA prohibits the "taking" of marine mammals without a permit. The Navy did not seek a Letter of Authorization or a "take" permit for the March 2000 Bahamas training, as there was no indication, historic or scientific, prior to the event that there would be any takings or adverse affect on marine mammals or any other species; in effect, there was no reasonable way to foresee that the statutory threshold requiring such an authorization would be crossed.

Navy implements a number of measures to protect species of concern during ordnance training in the Gulf of Maine. We believe such measures are sufficiently protective to avoid the "taking" of marine mammals and, consequently, that a Letter of Authorization under the MMPA is not required. Allegations that Navy was responsible for the death of a partially decapitated right whale proved to be unfounded when a team of scientists from the New England Aquarium, who examined the carcass, found no evidence linking Navy training to the death of the right whale.

The Navy did not have an MMPA permit for the Canary Islands exercise. The U.S. Navy units participating were doing so as part of a multi-national exercise, which was sponsored by, and under the command of Spain. To date, neither the U.S. Navy nor NOAA Fisheries have received the final report of the Anathomo-Pathologic Study made by scientists on the Canary Islands relating to the cause of the stranding event.

DOD Provisions: National Security Exemption

Question 13. In 1998, Congress amended the U.S. Armed Forces Code to give the military an opportunity to suspend administrative actions pending consultation between the Secretary of Defense and the head of the agency involved. How many times has the Secretary of Defense used the provisions in Section 2014 for activities that fall under the scope of the Navy?

Answer. Exemption authorities do not work well in addressing those degradations in readiness that result from the cumulative, incremental effects of many different regulatory requirements and actions over time. Therefore, the Secretary of Defense has not used the provisions of 10 U.S.C. § 2014 for any activities that fall under the scope of the Navy.

Question 14. Why do you require an exemption for national security when you can use the Title 10 Section 2014 exemption?

Answer. Although existing exemptions are a valuable hedge against unexpected future emergencies, they cannot provide the legal basis for the Nation's everyday military readiness activities. DOD believes that it is unacceptable as a matter of public policy for indispensable readiness activities to require repeated invocation of emergency authorities—particularly when narrow clarifications of the underlying statutory and regulatory schemes would enable both essential readiness activities and the protection of the environment to continue. Further, unlike other natural resources statutes, such as the Endangered Species Act or the Migratory Bird Treaty Act, there is no national security exemption in the Marine Mammal Protection Act.

Question 15. Isn't it correct that the current rules provide a 5-day period, not as a limit on the length of any exemption granted, but rather the time by which an agreement must be worked out between DOD and the regulatory agency? And if such an agreement is not worked out, then the President can take action to grant an exemption?

Answer. The provisions of 10 U.S.C. § 2014, which allow a delay of at most five days in regulatory actions significantly affecting military readiness, is a valuable insurance policy for certain circumstances, but allows insufficient time to resolve disputes of any complexity. More to the point, 10 U.S.C. § 2014 merely codifies the inherent ability of cabinet members to consult with each other and appeal to the President. Since it does not address the underlying statutes giving rise to the dispute, it does nothing for readiness in circumstances where the underlying statute

itself—not an agency's exercise of discretion—is the source of the readiness problem. Further, it does nothing to address private litigation against DOD and appropriate regulatory agencies. This is particularly relevant because the MMPA relief DOD is seeking was occasioned by private litigants seeking to overturn Federal regulatory processes and compel Federal regulators to impose crippling restrictions on our readiness activities.

Question 16. If this exemption is not adequate, why alter the existing exemption instead of creating a new one?

Answer. As noted earlier, there currently is no national security exemption under the Marine Mammal Protection Act. Therefore, there is no exemption to modify. As for possible modifications to 10 U.S.C. § 2014, the inherent deficiencies noted above would require major modifications of its provisions. Finally, DOD believes it is inappropriate to pursue modification of 10 U.S.C. § 2014 when it is unacceptable to seek repeated invocation of the provision to address instances of the adverse impacts of environmental laws upon military readiness activities.

Question 17. Why didn't DOD feel it necessary to request a national security exemption in the 2002 proposal?

Answer. The national security exemption process, which is an addition from last year's proposals regarding MMPA, derives from feedback that DOD received from environmental advocates after we submitted our proposal. These advocates indicated that existing statutory emergency authorities, which would fully exempt DOD from the waived statutory requirements however long the exemption lasted, should be invoked rather than having DOD seek narrow, targeted changes to existing environmental statutes that adversely impact military readiness activities. Although DOD continues to believe that predicating essential military training, testing, and operations on repeated invocations of emergency authority is unacceptable as a matter of public policy, we do believe that every environmental statute should have such authority as an insurance policy. The comments we received last year highlighted the fact that the MMPA does not currently contain such emergency authority, so this year's submission does include a waiver mechanism. Like the Endangered Species Act, our proposal would allow the Secretary of Defense, after conferring with the Secretaries of Commerce or Interior, as appropriate, to waive MMPA provisions for actions or categories of actions. This provision is not a substitute for other clarifications DOD has proposed to the MMPA, but rather a failsafe mechanism in the event of emergency.

Question 18. National defense is not defined in DOD's proposed exemption provision. What would it cover? Is it broader than combat activities? Than military readiness?

Answer. The modifications to the MMPA that DOD is seeking, including the national defense exemption, are designed to address encroachment associated with the application of the MMPA to military readiness activities. This term is currently defined by Section 315(f), Pub. L. No 107–314 as: "(A) all training and operations of the Armed Forces that relate to combat; and (B) the adequate and realistic testing of military equipment, vehicles, weapons, and sensors for proper operation and suitability for combat use." The definition then provides a list of administrative, support, and logistical activities that are not considered "military readiness activities." Given the focus of DOD's proposed MMPA modifications on military readiness activities, relation of that term to training, operations, and testing associated with combat or combat use, and limitations placed on the term regarding administrative, support, and logistics functions, it is DOD's belief that any invocation of the national defense exemption would be limited in scope.

Question 19. Could the exemption be granted in times of peace? When there is no declared national security emergency?

Answer. Military readiness is maintained by thousands of discrete testing and training activities at hundreds of locations conducted daily. Many of these military readiness activities are being adversely affected by environmental provisions, such as the MMPA. Maintaining military readiness through the use of emergency exemptions would involve issuing and renewing scores or even hundreds of exemptions annually. Although a discrete activity (*e.g.,* a particular carrier battle group exercise) might only rarely rise to a level critical for national security, it is clearly intolerable to allow all activities that do not individually rise to that level to be compromised or ended by over regulation. Finally, to allow continued, unchecked degradation of readiness until an external event like the attack on Pearl Harbor or the terrorist attacks of September 11, 2002, causes the exemption to be invoked, would mean that our military forces would go into battle having received degraded training, with weapons that had received degraded testing and evaluation. Although DOD believes that it is unacceptable as a matter of public policy for indispensable readiness ac-

tivities to require invocation of emergency authority—particularly when narrowly tailored modifications of the MMPA would enable both essential military readiness activities and protection of marine mammals to continue, and would only invoke such an exemption as a failsafe mechanism—DOD believes the exemption could be granted in times of peace and when there is no declared national security emergency.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. FRANK R. LAUTENBERG TO VADM CHARLES W. MOORE, JR.

Question 1. At the hearing you testified that the permitting requirements under the MMPA have forced the Navy to "dumb down" many of its exercises. Please provide specific examples of when this has occurred, how those instances have adversely impacted military readiness, and a pattern to justify amending the MMPA.

Answer.

a. Operational training and deployment of the Navy's Surface Towed Array Sonar System Low Frequency Active (SURTASS LFA) sonar system has been delayed for six years by environmental issues. The sonar is critically needed to protect Sailors and Marines in waters such as those off North Korea, in the Arabian Sea, and in the Taiwan Strait.

   1. Without this sonar system, diesel submarines operated by North Korea, Iran, and China have a greater ability to approach and launch their weapons at U.S. Navy ships without being detected.
   2. Even after six years of development and completion of the environmental permitting process and after the Navy invested $10 million on independent scientific research that showed the system could be used with negligible impact on marine mammals, special interest groups sued the Navy to stop training with the system.
   3. Today, the Navy is under a court order that restricts testing and training with the sonar. As part of that litigation, the court has required Navy to negotiate with the special interest group over where and when the Navy would operate the system.

b. During the last six years of conducting research on how to counter mines and detect submarines in shallow water, over 76 percent of the tests planned by the Navy's Office of Naval Research have been delayed, scaled back, or cancelled due to environmental rules regulating marine mammals.

   1. In the last four years, nine of ten tests have been affected and 17 associated projects have been scaled back or eliminated to avoid potential environmental issues.
   2. Even after the Navy's extensive efforts to comply with environmental laws, special interest groups sued in the fall of 2001 to stop the Navy's shallow water tests. The court decision denied the challenge to the research effort as a whole, but left each individual test open to litigation over compliance with environmental regulations. Since the litigation, only one sea test conducted overseas has been completed and future tests are at risk.

c. Navy's efforts to establish permanent, at-sea shallow water training ranges for both the East and West coasts are being delayed by environmental regulations and the potential for litigation, particularly over how to apply the definition of "harassment" in the Marine Mammal Protection Act to Navy training.

   1. As a result, the Navy does not have dedicated at-sea Shallow Water Training Ranges to hone the skills necessary for combat in the Navy's most likely battlefield, the littorals.
   2. In January 2003, an environmental special interest group sued and stopped Woods Hole Oceanographic Institute from conducting Office of Naval Research sponsored research on a high frequency sonar system *designed to detect and thereby prevent harm to marine mammals* that could be present on these ranges.

d. Common examples of mitigation in Anti-Submarine Warfare fleet training exercises that degrade realism follow.

   1. The Navy must routinely practice moving ships through straits. For example, to safely transit the Strait of Hormuz requires that ships be ready to defend against mines and submarines, among other threats. Mitigation for marine

mammals has resulted in practicing this critical skill in less realistic conditions in deep water to avoid potential harassment. The Navy has been unable to replicate the complex combination of conditions that exist in shallow water and narrow channels that would allow for realistic training for ships, aircraft, and submarines by some other means.

2. Mitigation measures often call for aerial and other on-site surveys immediately prior to an exercise to determine the presence of marine mammals, turtles, other protected animals, or masses of seaweed that serve as an indicator that animals might be present in the exercise area. Post-exercise surveys are also a common mitigation requirement to ensure animals have not been injured. The requirement for these visual surveys effectively precludes training at night, since the survey requirement can only be met in daylight.

e. Ship shock tests are conducted to measure the effectiveness of a vessel and its systems in the event of a nearby, large underwater explosion. A problem resulted when during the SEAWOLF shock test, Navy was required to adopt mitigation requiring Navy aircraft to fly at 500 feet to sight sea turtles. Ironically, due to legal requirements of the MMPA, NOAA Fisheries insisted that mitigation flights flown below 1,000 feet themselves required an MMPA permit, because these mitigation flights could disturb marine mammals. In effect, Navy needed a permit to get a permit.

f. At the Pt. Mugu Sea Test Range, missiles fired from San Nicolas Island may briefly startle seals and sea lions on the beach. However, none have stampeded. The potential of "harassment" required the range to secure a MMPA permit. While awaiting the permit, three ships of the USS CARL VINSON battlegroup were not able to complete necessary anti-ship missile training evolutions and deployed to the Arabian Gulf without the valuable training needed to protect the ship and the battlegroup.

g. Navy lays communications and other cables in the oceans for national security reasons. NOAA Fisheries prepared a draft white paper speculating that cable laying could result in marine mammal takes due to elevated noise levels, vessel traffic, and whales becoming entangled in the cables. Entanglement is unlikely, but the need for a permit for noise and vessel traffic could delay projects for months.

h. Consideration of environmental factors (such as time of year, predicted locations of animals, and whether the training area includes designated "critical habitat") is a routine part of fleet exercise planning. Constant regulatory pressure, the vagueness of the definition of harassment in the Marine Mammal Protection Act, and the threat of litigation by special interest groups that could delay or stop training, conflict with the operational need for the training and could add time away from home for deploying troops.

Question 2. While you acknowledged in your testimony that the Navy has never been denied a permit under the MMPA, you stated that there were "several examples" of permit applications having been withdrawn and exercises cancelled due to the onerous mitigation measures imposed on the Navy as a condition of receiving its permit. Please provide the committee examples of these onerous mitigation measures; documentation of permits being withdrawn and exercises cancelled; and documentation linking the two together.

Answer.

a. Common examples of mitigation.

1. Anti-Submarine Warfare fleet training exercises. The Navy must routinely practice moving ships through straits. For example, to safely transit the Strait of Hormuz requires that ships be ready to defend against mines and submarines, among other threats. Mitigation for marine mammals has resulted in practicing this critical skill in less realistic conditions in deep water to avoid potential harassment. The Navy has been unable to replicate the complex combination of conditions that exist in shallow water and narrow channels that would allow for realistic training for ships, aircraft, and submarines by some other means.

2. Mitigation measures often call for aerial and other on-site surveys immediately prior to an exercise to determine the presence of marine mammals, turtles, other protected animals, or masses of seaweed that serve as an indicator that animals might be present in the exercise area. Post-exercise surveys are also a common mitigation requirement to ensure animals have not been injured. The requirement for these visual surveys effectively precludes training at night, since the survey requirement can only be met in daylight.

The recent LFA decision handed down by the Federal District Court of Northern California would require Navy to employ aerial and small boat surveys "close to shore" off North Korea. Clearly Navy cannot conduct this mitigation without great risk to its sailors. Consequently, essential training in the future may not take place.

3. Ship shock tests are conducted to measure the effectiveness of a vessel and its systems in the likely event of a nearby, large underwater explosion. A problem resulted when during the SEAWOLF shock test, Navy was required to adopt mitigation requiring Navy aircraft to fly at 500 feet to sight sea turtles. Ironically, due to legal requirements of the MMPA, NOAA Fisheries insisted that mitigation flights flown below 1000 feet themselves required an MMPA permit because these mitigation flights could disturb marine mammals. In effect, Navy needed a permit to get a permit.
4. At the Pt. Mugu Sea Test Range, missiles fired from San Nicolas Island may briefly startle seals and sea lions on the beach. However, none have stampeded. The potential of "harassment" required the Range to secure a MMPA permit. While awaiting the permit, three ships of the USS CARL VINSON battlegroup were not able to complete necessary anti-ship missile training evolutions and deployed to the Arabian Gulf without the valuable training needed to protect the ship and the battlegroup.
5. Navy lays communications and other cables in the oceans for national security reasons. NOAA Fisheries prepared a draft white paper speculating that cable laying could result in marine mammal takes due to elevated noise levels, vessel traffic, and whales becoming entangled in the cables. Entanglement is unlikely, but the need for a permit for noise and vessel traffic could delay projects for months.

b. Permits.

1. In 2001 and 2002, the Navy made a total of nine requests for small take authorizations, either in the form of a request for a Letter of Authorization or a request of an Incidental Harassment Authorization. On average, the Navy submits approximately four requests per year for small take authorization under the MMPA. Most requests for small take authorization are associated with potential takes by Level B harassment.

c. The Navy MMPA small take authorizations are requested in support of:

1. *Scientific Research*—actions such as tagging and tracking animals in the wild, and testing and training captive animals in the Navy's marine mammal program.
2. *Systems Test and Evaluation Requirements*—ship shock trials of new classes of ships, and development and testing of new sonar equipment and mine countermeasures.
3. *Rocket or Missile Noise*—Navy sought a small take authorization for its missile and rocket launch activities at San Nicolas Island.
4. *Construction/Demolition Noise*—Navy sought a permit for demolition of facilities at Point Mugu Lagoon.

d. Based on available public records covering the past nine years, the Navy has never officially been denied a permit under the MMPA. However, announcements of permit applications being denied are very rare. One reason the Navy does not have permits denied is that the Navy does not apply for a small take authorization when the action in question is not expected to result in a "take" under the MMPA. Often, this determination is made only after extensive mitigation measures are employed (*e.g.,* lookouts, sonar power reductions, daylight-only, sea state, and other operational restrictions). Also, the long lead time and cost associated with securing a small take authorization often dictate that Navy activities forego short-fused testing and training opportunities that would normally be subject to small take authorization requirements.

For example, in the spring of 2000, an exercise opportunity arose to train with a Dutch submarine, which would be available for only several weeks. The training included testing the U.S. Navy's ability to detect a diesel submarine off the Atlantic seaboard. The Office of Naval Research officially coordinated with NOAA Fisheries to meet legal obligations under MMPA and other environmental laws. Because the window for conducting this testing was less than 45 days due to the limited availability of operational assets, the request for concurrence from NOAA Fisheries was withdrawn and the testing and training

cancelled because permits could never have been obtained within the time constraints presented. See attached.

e. Some Navy testing events have actually been canceled due to an inability to comply with environmental requirements. During the last six years of research on how to counter mines and detect submarines in shallow water, over 76 percent of the tests planned by the Navy's Office of Naval Research have been delayed, scaled-back, or cancelled due to environmental rules regulating marine mammals. In the last four years, 9 of 10 tests have been affected and 17 associated projects have been scaled back or eliminated to avoid potential environmental issues. See for example the attached.

f. Additional Comments.

1. Although the Navy has not been denied a small take authorization, it cannot be said that the MMPA has not affected testing and training evolutions. Several facets of the MMPA are adversely affecting Navy testing and training evolutions. The current definition of Level B harassment, premised on the "potential to disturb," is a vague and impractical standard. The lack of a scientific basis for level B harassment determinations and the subsequent inability of the regulatory agency to determine appropriate action thresholds hampers operational planning and leaves both the activity and NOAA Fisheries vulnerable to resource and time consuming lawsuits. Further, the vague and imprecise standards unduly lengthen the small take authorization administrative process and introduce unpredictable mitigation requirements.
2. Additionally, the requirement that small take authorizations involve no more than "small numbers" of takes is problematic. In 2000, the National Research Council supported removal of the phrase "of small numbers" because they foresaw that the dual requirement for both "small numbers" of takes and the "negligible impact" on a species or stock could result in the denial of permits for activities that would insignificantly harass a large number of animals. This predicament has in fact arisen in the context of the SURTASS LFA litigation and, if maintained, may impact other take authorizations in the future.
3. Given the increasing demand upon the Navy to meet operational commitments throughout the world and the changing nature of training associated with such commitments, the current MMPA language and resultant permitting process fails to provide the flexibility required to support training and testing needs.

Question 3. In hindsight, should the Navy have sought a permit under the MMPA prior to conducting its recent sonar exercises in Puget Sound that is under investigation for the death of several marine mammals? Please explain. If the Administration's proposed changes were adopted, would the Navy be required to secure a permit for an identical activity in the future?

Answer. At this juncture, there remains no evidence that any marine mammals were injured or harassed as a result of USS SHOUP's use of mid-range sonar on May 5, 2003. Much of the behavior observed was subject to varying descriptions and interpretations. Navy has not yet completed its formal report on the May 5, 2003, Haro Strait allegations. The matter has been under investigation by the Commander, U.S. Pacific Fleet, and National Oceanic and Atmospheric Administration (NOAA) Fisheries. The Pacific Fleet inquiry has been focused on an extensive acoustic analysis of the events of May 5, 2003, employing a rigorous methodology consistent with the analysis undertaken as part of the investigation into the Bahamas event. It is presently premature to discuss the preliminary findings of the Pacific Fleet's inquiry. Completion of the Pacific Fleet's inquiry is dependent upon NOAA Fisheries' notification of the harbor porpoise necropsy findings. NOAA Fisheries is investigating the various possible causes for the dolphin strandings in Puget Sound. One possibility is that these dolphins stranded due to illness caused by a pathogen that has historically been responsible for strandings. On May 20, 2003, Richard Osborne, Research Director of the Whale Museum, Friday Harbor, WA, stated museum personnel have been documenting porpoise strandings in the San Juan Islands (Haro Strait) since 1980. Since 1992 the stranding network has documented an average of 5.8 porpoises a year, and 70 percent of those strandings have occurred between March and June, with the peak in May. The pattern this year appears to be normal. In short, Navy is not presently in a position to comment as to whether this event would constitute harassment under existing law or under the Administration's proposed clarification of the term.

Question 4. This law essentially asks only that you obtain a permit for activities that will disturb or "take" marine mammals. What steps have you taken to work directly with the regulating agencies to work out your concerns?

Answer. The Navy meets regularly with NOAA Fisheries at both regional and headquarters levels to discuss issues specific to permit authorizations and for resolving the broader issues surrounding the challenges posed by the Marine Mammal Protection Act (MMPA). In 2000, during the previous presidential administration, representatives of NOAA Fisheries, U.S. Fish and Wildlife Service, the Marine Mammal Commission, and the U.S. Navy agreed to work together to amend the MMPA because they agreed that, as currently written, the MMPA was fundamentally flawed and that these flaws were insurmountable without amendment to the MMPA itself. Most of the problems with the MMPA identified by these Federal agencies were the same issues identified by the National Research Council (NRC) (National Academy of Science) in a report to Congress in 2000. In its report, the NRC concluded that, if the current definition of Level B harassment "were applied to shipping as strenuously as it is applied to *scientific* and *naval* activities, the result would be crippling regulation of nearly every motorized vessel operating in U.S. waters."

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. JOHN F. KERRY TO DAVID COTTINGHAM

Harassment Definition

Question 1. Three of the witnesses appearing today raise concerns with the Administration's proposal to only require an incidental take authorization for harassment under the MMPA if the activity can be shown to lead to "abandonment" or to "significantly alter" a natural behavior. Given our lack of knowledge about the likely impacts of various activities on marine mammals, won't it be impossible to know in some cases at the time an activity is proposed whether such activity would "cause disruption of natural behavioral patterns," such as migration, "to a point where such behavioral patterns are abandoned or significantly altered"?

Answer. Our knowledge about marine mammal behavior may be far from perfect, but we do know some things. Because of the strong commitment to sound science and well-funded continuing research upon which the Administration's proposal is predicated, there will be many cases in which it will be fairly apparent whether a particular activity can be expected to result in the significant alteration of marine mammal behavioral patterns. There may also be instances in which a determination of significance, at least initially, will be more difficult to make, particularly if the activity involves novel stimuli or is acting in conjunction with other sources of disturbance. In such cases, it may indeed be difficult to "know" at the outset if the behavioral impact of a proposed activity will be significant. However, the definition of harassment proposed by the Administration does not require that level of certainty. To constitute harassment under the Administration's proposal, the activity or activities need only have a significant potential of injuring a marine mammal or marine mammal stock or a likelihood of disturbing a marine mammal or marine mammal stock to the point where its behavioral patterns are abandoned or significantly altered.

Clarification of the current definition of Level A harassment is necessary because the current "potential to injure" standard contains no guidance as to how much of a potential there must be to trigger the provision. Under this standard, many interactions between marine mammals and human activities are subject to debate and, potentially litigation, on the issue of whether there is the "potential to injure" a marine mammal. Retaining, without qualification, the term "potential" will require agencies and citizens either to seek an authorization for any action that has even a remote possibility of causing injury to a marine mammal, to assemble an administrative record that rules out any possibility of injury or disturbance, or risk litigation. Similarly, the Administration's proposed definition of Level B harassment provides additional guidance as to how substantial the potential for disturbance should be to constitute harassment That proposal draws on the National Research Council's recommendation that regulatory agencies focus their attention on those activities that are likely to cause significant disruption of important behaviors. The use of the term "potential" in the current definition of Level B harassment carries with it the same problem of over-inclusiveness, lack of clarity, and risk of litigation discussed above with respect to Level A harassment. Moreover, the problem with Level B harassment is even more onerous than that for Level A harassment in that more activities have some potential to disturb marine mammals than to cause injury. The goal of the Administration's proposed redefinition of harassment is to focus agency atten-

tion and resources on those activities that have more than a *de minimis* likelihood of causing the disruption of critical biological behaviors. That definition would be more enforceable, and would provide greater notice and predictability to the regulated community by presenting a clear threshold for what activities do or do not constitute harassment, without compromising the conservation of marine mammals.

To the extent that there is uncertainty in applying the proposed "abandoned or significantly altered" standard, much of it can be addressed in the legislative history accompanying the provision or in implementing regulations issued by the responsible resource agencies to refine further how likely the abandonment or alteration of behavioral patterns needs to be. In this regard, the Commission believes that the guidance contained in the conference report that accompanied the change in the harassment definition enacted for military readiness activities and certain research activities by Public Law 108–136, the National Defense Authorization Act of 2004, which appears to be drawn from a 2000 National Research Council Report, *Marine Mammals and Low-Frequency Sound* (see p. 67), might lead the regulatory agencies charged with implementing the new definition of harassment into adopting an interpretation that is too exclusionary. Under guidance in that report, behavioral patterns might be considered to be abandoned or significantly altered only if they resulted in "demographic consequences to reproduction or survivability of the species." Implementing the definition in this way would render the distinction between Level A and Level B harassment essentially meaningless by equating taking by Level B harassment that had demographic consequences with taking by Level A harassment (by causing injury, or having a significant potential to cause injury, at the population or individual level). Furthermore, it may be difficult to determine when a single event or series of events results in population-level impacts for many years, which may affect our ability to make a timely determination as to when harassment may have occurred.

Question 1a. Since even a momentary abandonment of sheltering a young calf from a killer whale attack could be lethal, wouldn't the use of this term in some cases raise Level B harassment to impacts that are the equivalent of non-harassment lethal takes?

Answer. The Marine Mammal Protection Act defines "take" to mean "to harass, hunt, capture, or kill, or attempt to harass, hunt, capture, or kill any marine mammal." None of these elements is mutually exclusive. For example, chasing and capturing a dolphin would constitute a taking by both harassment and capture. Similarly, killing a marine mammal, in many instances, would also constitute taking by hunting and Level A harassment. Thus, it is possible that Level B harassment could, in certain instances, such as the example given, also result in a sequence of events that leads to injury or mortality of an animal. The situation under the Administration's proposed definition of harassment would be no different than it would be under the existing harassment definition. In both cases, the example would constitute Level B harassment (be it through the potential to disturb the marine mammals involved or because the disturbance resulted in the abandonment or alteration of sheltering behavior) that led to Level A taking. Whether the example also would have been identified as a situation that raised concerns about taking by Level A harassment under the Administration's proposed definition depends on whether the potential for this type of injury was considered significant.

Question 1b. Isn't it the case that many activities that have the potential for serious impacts on marine mammals simply go unregulated?

Answer. Yes, some activities that could result in serious impacts to marine mammals and marine mammal populations are, at present, largely unregulated with regard to marine mammal conservation. Oftentimes this is a function of the ubiquitous nature of the type of activity and the remoteness of the causal connection between any single action and the risk posed to marine mammals. Shipping along the East Coast of the United States provides a good example of this.

Thousands of ships annually ply the waters frequented by North Atlantic right whales and other large cetacean species. We know that some small fraction of these ships is likely to collide with these whales, resulting in at least some deaths and serious injuries each year. Because of the small number of right whales remaining and the population's critically endangered status, any mortalities or serious injuries will likely have significant adverse impacts on the species. Nevertheless, because of the large expanse of ocean involved, and the unpredictability as to when and where any particular interaction between a whale and vessel will occur, it is difficult to prescribe a set of regulations that will eliminate the potential for adverse impacts without also placing burdens on the majority of vessels whose activities are not expected to take marine mammals. For some species, such as the North Atlantic right whale, which congregate somewhat predictably near heavily used shipping lanes at

certain times of the year, a more targeted approach may be available. In this regard, the National Marine Fisheries Service is endeavoring to identify areas where these problems are most acute and is considering various alternatives, such as mandatory ship routing measures and speed restrictions, aimed at significantly reducing threats posed by ships.

Ships and other activities that introduce sound into the marine environment may also have adverse effects on marine mammals even when they do not involve close approaches to the animals or pose a risk of taking by collision. To date, efforts to address such impacts have focused largely on discrete sources that are most readily identified—those that intentionally introduce loud sounds into the marine environment. These sources include seismic profiling by the oil and gas industry, geophysical research, deployment of certain sonars by the military, and some construction/demolition activities. Certain more omnipresent sound sources, such as tankers, freighters, and other large ships, which may not individually have adverse effects on marine mammals but which collectively may be a significant problem, currently are not regulated. The Commission's Advisory Committee on Acoustic Impacts on Marine Mammals is considering the full spectrum of sound sources and their potential to affect marine mammals. We expect that the Committee's report will identify needed research to assess the potential impacts of these other sound sources and may include recommendations on how to mitigate the impacts of those sources of greatest concern.

Activities that produce marine pollution also pose risks to marine mammals by exposing them to harmful substances that may kill or injure animals, that may expose them to diseases and pathogens, or that may otherwise compromise the health of the animals. Although many potential sources are well regulated under a host of federal, state, and international laws, others, such as non-point-source pollution, are not. Similarly, activities that contribute to the proliferation of marine debris, only some of which are regulated, may have serious impacts on the health and survival of marine mammals. Although such activities may adversely affect marine mammals, and arguably constitute unauthorized takings under the Marine Mammal Protection Act, they also have more general impacts throughout the marine environment. Thus, they are probably best addressed under statutes other than the Marine Mammal Protection Act.

Question 1c. The House passed a DOD authorization bill without the third prong of the Administration's proposed definition, aimed at activities "directed at" marine mammals. Do you have any concerns with dropping this part of the definition and, if so, why?

Answer. The Commission and other agencies that fashioned the Administration's proposed definition of harassment agreed that the third prong of the definition was a critical element in a comprehensive approach to addressing activities that may harass marine mammals. There was general agreement that, while it was appropriate to focus agency attention and resources on those activities that may have significant impacts on marine mammals and marine mammal populations, we did not want to establish barriers that would make it more difficult to enforce the Act's taking prohibition with respect to those who intentionally interact with and disturb marine mammals in the wild. For example, to sustain an enforcement action against someone directing his or her actions at a marine mammal, it should be sufficient for the government to establish that the person directed his or her activities at the marine mammal in a way that was likely to disturb the animal (*e.g.,* entered the water to swim with the animal or closely approached it in a vessel) or did disturb the animal by disrupting its behavior. The government should not be required to establish also that the disturbance had a significant effect on the survival of the animal or on the welfare of the population of which it is a part. This would unnecessarily complicate the prosecution of harassment cases, changing the proceedings from finding of facts (*i.e.,* was a marine mammal disturbed by someone's actions?) to a battle of experts debating the impact of that disturbance on the animal or the stock.

This was not considered to be a critical omission in the harassment definition adopted as part of the National Defense Authorization Act of 2004, inasmuch as that definition is only applicable to military readiness activities and scientific research activities being conducted by or on behalf of the Federal government consistent with the permitting requirements of the Marine Mammal Protection Act. In contrast, omitting this prong of the definition from a more generally applicable definition of the term harassment, assuming a significance threshold is included elsewhere in the definition, as recommended by the Administration, would be a major shortcoming that would undermine the regulatory agencies' ability to enforce the Act's taking prohibition against those who engage in activities that traditionally have been considered harassment.

Scientific Permitting Issues

Question 2. What are your views with respect to improvements that could be made to the permitting process to address concerns raised by the scientific community, including both statutory and administrative changes?

Answer. At the outset, it is important to remember that we are looking at two distinct processes under the Marine Mammal Protection Act that are used to authorize the taking of marine mammals in the course of conducting scientific research. The permitting process under section 104 of the Act is limited to research on marine mammals and requires, among other things, that an applicant demonstrate that the proposed taking is necessary to further a "bona fide scientific purpose." For research not on marine mammals (*e.g.,* geophysical research) that will or may involve the taking of marine mammals, incidental taking can be authorized under section 101(a)(5) of the Act.

One proposal that has been made is to bring all research, not just that on marine mammals, under the section 104 permitting authority. Without further details of such a proposal, it is difficult to comment specifically. It is worth noting, however, that the amount of time it takes to process a research permit application may not be any shorter than that for securing an incidental harassment authorization under section 101(a)(5)(D)—as opposed to the lengthier rulemaking process required to authorize other types of taking under section 101(a)(5)(A).

Although there is nothing inherently objectionable about the proposed expansion of the Act's permitting authority, it probably would need to include more than just a few simple wording changes. For example, one of the key issuance criteria for scientific research permits under the existing provision is whether the proposal constitutes bona fide research. The permitting agencies are well situated to make such determinations with respect to marine mammal research but may be patently unqualified to make such determinations in other disciplines. Thus, before making any such statutory change, Congress should also consider corresponding changes to the underlying issuance criteria or should anticipate the need, at least in some instances, for the resource agencies to solicit outside expertise in making the required determinations.

Under the incidental take provisions, a principal finding to be made is whether the proposed activities will have a negligible impact on the affected marine mammal species and stocks. In contrast, there is no explicit requirement that such a finding be made before issuing a scientific research permit. Would meeting the negligible impact standard continue to be a requirement for research that is not directed at marine mammals, but which is expected to result in the taking of marine mammals? Would applicants still be required to reduce the level of taking and impact on marine mammals to the extent practicable? If so, these criteria need to be reflected in the proposed amendments.

In addition, there are cross-statutory issues that need to be addressed. For example, if endangered or threatened species are involved, an applicant would also have to satisfy the requirements of the Endangered Species Act (ESA). It is possible that some or all of these research activities could be covered under a permit for scientific purposes issued under section 10 of the Act. However, if any taking needed to be authorized through the section 7 consultation process, moving the Marine Mammal Protection Act (MMPA) process out of section 101(a)(5) may make this impossible to do, inasmuch as section 7(b)(4) explicitly requires a parallel authorization under that provision of the MMPA as a condition of obtaining an ESA incidental take statement.

Another issue that involves the overlay of different statutes is compliance with the National Environmental Policy Act (NEPA) in issuing MMPA permits and incidental take authorizations. Admiral West, in his testimony before the subcommittee, identified compliance with the NEPA requirements as a major obstacle to securing timely authorizations for research activities. Admiral West identified the limited resources of the National Marine Fisheries Service (NMFS) as a factor contributing to some of the delays faced by applicants and noted that these resources are being stretched further by a need to prepare environmental assessments (EAs) or environmental impact statements (EISs) in conjunction with reviewing requests for authorizations and permits. He did not, however, identify a proposed solution to this problem, be it providing the agency with additional resources to speed up processing or easing or lifting certain requirements.

The Commission believes that it would be worthwhile for authorizing agencies to review their processes for reviewing incidental take authorizations under NEPA and consider whether streamlining under the statutes as currently written is possible or necessary. In this regard, an activity underlying an incidental take request might have significant environmental effects that warrant the preparation of an environmental impact statement; however, the issuance of an incidental take authorization,

by itself, at least for Federal actions that otherwise are subject to NEPA, should not rise to that level. That is, to meet the statutory requirements for issuing a small-take authorization, the resource agency must determine that the level and type of taking will have a negligible impact on the affected marine mammal species and stocks. Because any such authorization under the requirements of the MMPA can have no more than a negligible impact on marine mammals, it may be appropriate to consider establishing a categorical exclusion under NEPA for these actions if they do not present the potential for significant impacts to other resources. This may lessen the administrative and paperwork burden on the agencies.

Amendments enacted in 1994 added a general authorization process to section 104 of the MMPA, under which bona fide research that may result only in taking marine mammals by Level B harassment could be quickly authorized. Some have suggested expanding this approach to include other types of research that may incidentally take marine mammals. In this regard, it should be remembered that the general authorization was added to ease the procedural burden of obtaining authorization to conduct research activities that are likely only to disturb, but not harm, a marine mammal. However, under the redefinition of harassment enacted as part of the National Defense Authorization Act of 2004, and several of the proposals currently being considered, these benign types of disturbance covered by the general authorization possibly would no longer constitute harassment at all. Thus, we recommend that Congress proceed cautiously in considering any proposal to expand the general authorization if it would apply to activities that, under the redefinition of Level B harassment, are expected to cause the abandonment or significant alteration of important behavioral patterns.

A significant limitation under the existing general authorization is that it does not streamline the authorization process for activities that are likely to take marine mammal species listed under the Endangered Species Act, even if the taking would be only by Level B harassment. A full-fledged permit is still required under the ESA. Unless something were done to overcome this limitation, the applicability of the general authorization to other types of research that incidentally take marine mammals would be similarly limited. In fact, because there is less control over what animals are harassed incidental to these research activities than when research is directed at specific animals, the usefulness of a general authorization in these other settings may be quite narrow.

Representatives of Alaska Native organizations have identified the need to analyze specimens from marine mammals harvested for subsistence purposes for a variety of reasons, such as contaminant screening, health assessments, stock structure analyses, etc. They are also working with scientists at the University of Alaska and elsewhere to develop and maintain a tissue bank of these marine mammals. Current NMFS regulations require all people handling the samples and doing those analyses on behalf of Natives to have research permits. The Fish and Wildlife Service allows greater flexibility regarding such research on walrus, sea otter, and polar bear samples. Under regulations implementing the Native exemption, the Fish and Wildlife Service allows marine mammals taken by an Alaskan Native to be transferred to "a duly authorized representative" of the Service for scientific research purposes. Similar regulations presumably could be adopted by NMFS.

Another permitting issue that has recently arisen involves requests to maintain specimens in tissue banks and museums for future research and reference. Scientists are now storing tissues from many marine mammal species for future use as research needs arise. Many types of research, particularly those investigating historical patterns of populations, rely on the availability of such samples. Thus, the opportune collection and archiving of such materials (*i.e.,* those from dead and stranded animals) is something that should be encouraged. Nevertheless, the MMPA permit provisions currently require that an applicant demonstrate that the collection of material is necessary to further a bona fide scientific purpose. This is something that may be difficult for some institutions to do at the outset in instances when they do not know how the specimens may be used in the future. The Commission therefore believes that properly accredited tissue banks should remain subject to the MMPA and ESA permitting requirements, but should be relieved of the obligation to demonstrate that bona fide research will be conducted on a particular sample. Such a showing should be deferred until a researcher wishes to obtain these samples for specific research purposes, an activity that should remain subject to the full permitting requirements of the Acts.

Question 2a. Admiral West is suggesting an enhanced research program on ocean noise. The MMC received an appropriation in the FY2003 bill also to look into this issue. Do you agree with Admiral West on the need for such a program? Where might such a program be housed?

Answer. The Commission has chartered an advisory committee in compliance with the Federal Advisory Committee Act to discuss and provide recommendations on these issues. The committee has 28 members including representatives from Federal agencies, academic institutions, oil and gas companies, and environmental organizations. The advisory committee will discuss and identify both additional research needs and how to accomplish them.

The Commission agrees with Admiral West's testimony regarding the need to improve our understanding of how marine mammals respond to a variety of undersea sounds. The Navy's Office of Naval Research (ONR) has historically sponsored most of the work in this arena. ONR, the National Science Foundation, NMFS, and the Minerals Management Service have recently begun coordinating some of their efforts involving such research through the National Ocean Partnership Program, which the Consortium on Ocean Research and Education (CORE) manages. The Commission believes that this partnership greatly enhances the coordination of Federal agencies' research on sound and marine mammals.

Enforcement

Question 3. The Marine Mammal Commission has raised concerns that NMFS has failed to enforce the MMPA against ongoing activities such as individuals on jet skis and in boats intentionally interfering with marine mammals in the wild. Can you describe some of these concerns, and what the source of the problem is?

Answer. The issue of interactions between people and wild marine mammals was considered at the Commission's 2002 annual meeting. Because of the regional focus of that meeting, we concentrated our review on interactions between people and pinnipeds along the California coast and wild dolphin swim programs in Hawaii. Nevertheless, we have similar concerns with respect to wild swim programs in the southeastern United States and to these types of activities in other regions. We expect to revisit this issue at our 2004 annual meeting.

The Commission appreciates that the enforcement resources of the National Marine Fisheries Service are finite. Enforcement officers cannot be everywhere all the time to ensure that marine mammals are not harassed by the public as they try to approach animals closely. Nevertheless, there are certain hot spots where these activities occur on a daily basis. For example, commercial operators at Kealakekua Bay, on the island of Hawaii, rent boats or conduct tours that enable, and in some instances encourage, people to closely approach resting spinner dolphins that frequent the area after foraging offshore at night. In many situations, the operators have their clients enter the water with snorkel or SCUBA gear just ahead of a swimming pod of dolphins. Enforcement personnel could target such areas, where incidents of possible harassment reportedly occur routinely and where these activities seem to be having adverse impacts on marine mammal populations.

The exchange of letters between the Commission and the National Oceanic and Atmospheric Administration (NOAA) that followed the discussion of this issue at our 2002 meeting is attached. The Commission's 6 May 2003 letter provides additional background and details of our concerns. In it, the Commission recommended that NOAA give higher priority to pursuing its enforcement of these violations of the Marine Mammal Protection Act, particularly in those locations where scientists have reported that ongoing incidents of Level B harassment of individuals appear to be posing risks of injury at the population level. The Commission further recommended that, to the extent that ambiguity in the definition of harassment is hampering NOAA's enforcement efforts, the agency take steps to delineate more precisely what types of interactions constitute harassment and will be considered actionable by the agency.

Question 3a. Will the Administration's proposed change to the harassment definition fix this concern?

Answer. The Commission believes that the Administration's proposed changes to the definition of harassment will address our concerns. First, it will clarify that any action can constitute harassment, not just acts of pursuit, torment, or annoyance. Second, we believe that the third prong of the proposed definition will clarify that any disturbance of a marine mammal that disrupts its behavior constitutes Level B harassment. Nevertheless, it is the regulatory agencies, rather than the Commission, that make the determinations as to what is or is not harassment and choose which cases they will pursue. Thus, this is a question best addressed to them.

Animal and Plant Health Inspection Service (APHIS)

Question 4. Currently, wild marine mammals fall under the authority of NMFS and FWS in the wild. However, the primary authority gets passed to APHIS if the marine mammals are placed in public displays. Does NMFS/FWS play any role in the oversight of marine mammals in public displays?

Answer. Currently, NMFS and FWS generally play a minor role in the oversight of matters related to the care and welfare of marine mammals maintained in captivity for purposes of public display. Under amendments enacted to the MMPA in 1994, captive care and maintenance standards for marine mammals at facilities in the United States are exclusively under the jurisdiction of the Animal and Plant Health Inspection Service (APHIS). Nevertheless, actions to revoke a permit or to seize animals from a facility that loses its Animal Welfare Act (AWA) exhibitors license remain within the purview of NMFS and FWS, although the concurrence of APHIS in the underlying finding is required. In addition, determinations pertaining to the adequacy of education and conservation programs and the accessibility of facilities are made by NMFS and FWS. These agencies are also the ones that receive notices of intended transfers of marine mammals between facilities, make determinations that the recipient facility meets the requirements of the MMPA, and maintain the inventory of marine mammals maintained for purposes of public display under section 104(c)(10) of the Act.

Thus, NMFS and FWS retain some authority over marine mammals at public display facilities. This is reflected in the Memorandum of Agreement entered into between NMFS, FWS, and APHIS in 1998 to coordinate their activities concerning marine mammals. That Agreement, among other things, specifies that NMFS and FWS will inform APHIS of the "[i]ssuance of citations for violations of the MMPA pertaining to the care and maintenance of captive marine mammals."

Perhaps the area in which NMFS and FWS have the greatest latitude in making determinations concerning the adequacy of public display facilities is for foreign facilities. Rather than considering solely whether a facility is licensed under the AWA, as is the case for domestic facilities, the agencies must determine that a foreign facility receiving a marine mammal from the United States meets standards that are comparable to those applicable to domestic facilities. In making these determinations NMFS, FWS, and APHIS work together to make a finding that a foreign facility meets comparable standards.

Question 4a. Does APHIS ever consult with NOAA or FWS on issues regarding the care and maintenance of captive marine mammals? Would that be useful?

Answer. For several years, representatives of APHIS's Animal Care Division, the permit offices of NMFS and FWS, the State Department, and the Commission have been meeting several times a year to advise one another about and discuss current and developing issues related to the maintenance of marine mammals in captivity. APHIS also consults with these agencies when it is considering specific actions, such as rulemakings concerning the care and maintenance of marine mammals. For example, FWS, NMFS, and the Commission all participated as non-voting observers during the negotiated rulemaking convened by APHIS in 1995 and 1996 to revise its marine mammal regulations.

For more than 15 years, the Commission has made a series of recommendations to APHIS concerning various aspects of the program for overseeing the welfare of marine mammals maintained in captivity. The Commission has expressed concern about certain provisions of the applicable care and maintenance standards and has stressed the need for a comprehensive review of these regulations. APHIS revised certain portions of its regulations in 2001 through negotiated rulemaking. However, the most controversial, and potentially costly, aspects (*e.g.,* space, water quality, enclosure and water temperature requirements) remain unchanged. The Commission has been advised by APHIS that it expects to publish a proposed rule on these other matters in 2005.

Question 4b. Concerns have been raised over the years with respect to the capabilities of APHIS to ensure adequate care for marine mammals on display (*e.g.,* with respect to Suarez Circus and the dolphin "petting pools"). What additional role might NMFS/FWS play to ensure the well-being of these animals?

Answer. The Commission is among those entities that have made recommendations concerning steps that APHIS might take to strengthen its ability to ensure that marine mammals maintained in captivity receive adequate care. For example, because we believe that marine mammals differ sufficiently from other animals subject to regulation under the AWA (coverage includes mostly terrestrial mammals and birds) and have different needs based on their physiological, behavioral, and social differences, the Commission has recommended that APHIS develop a core group of inspectors with specialized training and expertise to inspect marine mammal facilities. Because of cost concerns and logistical constraints, APHIS chose not to adopt this recommendation, but opted instead to provide supplemental training to its inspectors on the special needs of marine mammals. While the Commission considers this to be a positive development, we remain concerned that situations may

arise when the determinations to be made require more specialized knowledge of the particular needs of marine mammals.

As recognized by Congress when it passed the 1994 amendments to the MMPA, the National Marine Fisheries Service and the Fish and Wildlife Service each have several employees with specialized knowledge about the life histories, behavior, and biology of most species of marine mammals that might be called upon to augment APHIS's capabilities. They are a potentially valuable resource that can be called on by APHIS in at least two ways. First, they can be consulted by APHIS as that agency designs care and maintenance standards appropriate for the particularized needs of various marine mammal species maintained at public display facilities. Second, they can be consulted by APHIS inspectors to help make findings when compliance issues arise that may require specific expertise.

RESPONSES TO WRITTEN QUESTIONS SUBMITTED BY HON. JOHN F. KERRY TO RADM RICHARD D. WEST

Scientific Permitting Issues

Question 1. In your written testimony, you suggest as a possible change to the MMPA, that all scientific research should have a special permitting program that would entail less case-by-case review of various research projects. But does this really make sense? Is it the case that all scientific research will have minimal potential to harm marine mammals?

Answer. As I mentioned in my testimony, the overly complex and lengthy permitting process is having a chilling effect on scientific research in the marine environment. Given the choice of proposing and executing experiments that can be completed in a cost-effective and expeditious fashion or marine research that cannot, researchers are selecting the path of less resistance.

The suggestion that the Congress consider including other ocean science research in the same permitting category as research on marine mammals does not imply that these experiments have no potential to harm marine mammals. Under current law, marine mammal permits are issued for activities that range from harassment to more serious takings. Rather, the goal is to replace the current patchwork of regulatory options that scientists must wade through with a single process that would provide for assessment of the potential impacts to marine mammals and guidance and authorization for addressing them. In addition, the inclusion of marine mammalogists in the same science-permitting regime as other ocean scientists could facilitate participation of the former in multidisciplinary research efforts.

The recommended change could be used to streamline the regulatory process and improve its predictability for research programs. For example, seismic research in the ocean environment currently is permitted under the incidental harassment authorization (IHA) of the MMPA. However, all seismic programs are operated in a very similar fashion with the major variable being the size of the airgun arrays. The research community has developed a set of marine mammal mitigation measures that have been incorporated into the IHA applications by NMFS. Intensive reviews of what are essentially repetitive data should not be required for each permit application.

Question 2. Didn't the Ewing research involve air guns that could have more than de minimis impacts on marine mammals? In fact, the court found that "the Ewings air guns send out blasts at a sound level recognized to be in excess of what would cause significant harm to an important biological activity in 95 percent of marine mammals exposed to it."

Answer. It is true that the *Ewing* air guns create high sound levels, but it is important to understand that the calculated point source signal strength is not experienced anywhere in the water. This calculation is used by scientists to compare air gun signals and should not be used to assess potential impacts on marine mammals. Actual sound levels decrease very rapidly as the distance from the source increases. The pressure from a 20-gun array falls below 200 dB about 200 meters on either side of the ship. For comparison, humans in water begin to feel pressure at 182 dB and sperm whales emit sounds in the range of 200–225 dB.

All the parameters—frequency, intensity, and timing of the signal—must be considered when judging the effect of sound in the water, as well as a species' sensitivities to these characteristics. To do otherwise, is to view only a very limited section of a much larger and more complex picture. It should be noted, however, that good information on the effect of sound is lacking for many marine mammals, and what is available is largely extrapolated from ear structure and other anatomical aspects. As you know, CORE supports a strong research program to expand our understanding and limit uncertainties.

It should be noted that the *Ewing* airguns are very similar to those used in commercial and industrial activities, which are not regulated on a case-by-case basis, but operate instead under a general authorization.

Question 3. Apparently, many scientific researchers outside of the marine mammal field have not been seeking incidental take authorizations from NMFS or FWS. Why is that? Has the community been unaware of this statute for the past 30 years?

Answer. Incidental take authorizations authorize takes, not activities. The MMPA indicates that no permit is required if no harm is anticipated to marine mammals in general and specific endangered species. To avoid the potential for harm to marine mammals, non-marine mammal researchers have followed mitigation procedures that were developed through advice from marine biologists and fisheries experts. Several programs executed in high-density mammal population areas were accompanied by observers from NMFS, or, in the case of a foreign EEZ, by observers assigned from those countries.

Most oceanographic research produces noise. The propulsion of ships, depth sounders, acoustic current meters, and many other scientific instruments either produce sound as a byproduct, or by design. However, until the regulatory agencies publish guidelines for what levels of sound pose a risk of a take, there will be no objective basis for oceanographic researchers to decide whether they need to apply for incidental take authorizations or not.

Question 4. Given that few authorizations have been sought, isn't it premature to suggest significant statutory changes at this time?

Answer. All three of the committees established by the National Academy of Science over the past decade have emphasized the obstacles to research posed by the regulatory process. The regulatory roadblocks and adverse court decisions over the past few years make obvious the urgent and immediate need for statutory changes.

Question 5. I am intrigued by your suggestion that we authorize a new research program on the effects of underwater sound on marine mammals. What are some of the options for housing such a program?

Answer. CORE believes that this effort needs to be multi-agency, focused, and involve input from external communities such as academic researchers, private sector users and non-governmental organizations. Projects should be competitively selected and peer-reviewed and an oversight board should define the research areas and priorities to ensure that work focuses on critical issues.

Fortunately, the government already has a mechanism that can manage these requirements in the National Oceanographic Partnership Program (NOPP). This program already has the involvement of all the Federal players, and has already begun a pilot program as part of its current research effort. We believe that it is important to use existing administrative structures, rather than spend time, resources and effort on establishing new ones that may not be any more successful.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. JOHN F. KERRY TO NINA YOUNG

Harassment

Question 1. You say other measures could be done to fix concerns of the Navy and others. What are some of these measures?

Answer. The Department of Defense's (DOD) proposal to create a separate incidental take exemption process for military readiness activities would introduce substantial ambiguity and would eliminate critical elements from the authorization process. We believe that the Department should look to both legislative and non-legislative alternatives to further streamline the administrative process. In addition, there may be opportunities to address DOD's concerns through improved coordination and implementation of other statutes.

First, Congress or the Administration could consider a consultation process that would provide the applicant with greater certainty and guidance. Through a consultation process the applicant would have a clear indication what provisions of the MMPA and NEPA are applicable to the proposed activity. While this requires advanced planning on the part of the applicant, the benefits of improved communication early in the process will likely be reaped with fewer delays during the permitting process.

Second, we would urge Congress to mandate that NMFS undertake a programmatic review of the incidental take authorization program as a means to improve efficiency and meet the goals and mandates of the MMPA.

Third, Congress should provide NMFS with additional resources to adequately staff the Office of Protected Resource to expedite and streamline the incidental take permitting process.

Finally, wherever possible NMFS should undertake programmatic environmental analyses to further streamline the permitting process.

Question 1a. As a biologist, what concerns do you have with the Administration's definition?

Answer. As a biologist I am most concerned about the DOD's and the Administration's proposal to add a new requirement to Level B harassment that natural behavioral patterns be disrupted to the point where such behavioral patterns are abandoned. Requiring the abandonment of critical biological behaviors for an action to constitute harassment violates the precautionary goals of the Act and sound scientific conservation principles. As has been noted in the hearing by Dr. Tyack, abandonment of surfacing or breathing will result in the death of a marine mammal. Abandonment of nursing bouts or feeding areas will result in energetic deficiencies that will compromise the health of individuals or populations. In addition, what constitutes "abandonment" of behavioral patterns under the proposed new definition of Level B harassment will vary according to species, gender, time scale, and the nature of the behavior itself, making it especially difficult to interpret and implement this provision.

Question 1b. Do we have enough knowledge to be able to predict whether a particular activity will result in "abandonment" of a behavior?

Answer. The DOD bill and the Administration's reauthorization proposal are predicated on an unrealistically high assessment of our ability to differentiate between biologically significant and insignificant responses. When assessing activities that cause behavioral modification, scientists often cannot distinguish between those activities that will result in abandonment, have significant, long-term effects, and those that will not. For example, a disturbance that causes what might appear to be a relatively minor change in a marine mammal's migratory route could have unforeseen, and possibly significant, consequences in increased energy expenditures or greater exposure of the animal to an increased risk of predation. Similarly, short-term behavioral changes can have long-term physiological consequences. Animals that avoid a loud sound source in the ocean may exhibit immunological changes, which over the long-term could compromise their immune system. Therefore, until scientist can distinguish reliably between significant and insignificant responses, or what responses will or will not have long-term consequences, Congress should refrain from adopting a definition that excludes consideration of short-term impacts.

DOD Provisions: Deletion of "Small Numbers," "Specified Geographical Area."

Question 2. What concerns do you have with removing the requirement for "small" numbers, and for the limit to a "specified geographical area"?

Answer. The requirement that incidental take under these provisions be limited to "small numbers of marine mammals of a species or population stock" is an important and independent requirement that should continue to apply to all persons, including the Department of Defense. Deleting this requirement would allow increased and potentially unsustainable levels of injury or harassment. Although it is true that the bill retains the requirement that the Secretary find that the incidental taking have a negligible impact on the species or stock, these impacts are difficult to analyze, especially for marine mammal stocks for which little is known about their abundance or biology. Without the "small number" limitation, it may be difficult to evaluate the effects of injury or harassment on annual rates of recruitment and thereby establish sufficiently stringent quantitative standards for negligible impact; this creates the risk that adverse, possibly irreversible impacts will occur before they can be assessed. The additional requirement in the existing law, that the take be restricted to small numbers of marine mammals, ensures that that the biological consequence of that take will not hinder a marine mammal population's ability to grow or recover.

Restricting the activities to a specified region is in keeping with the requirements that the incidental taking must have a negligible impact on a stock of marine mammals and ensure that the taking has the least practicable adverse impact on its habitat. NMFS criteria for stocks states that stocks should be defined on the smallest divisible unit approaching that of the area of take unless there exists evidence of smaller subdivisions provided by ecology, life-history, morphology, and genetics data. (NMFS 1995 and 1997). In combination with the "small numbers" limitation discussed previously, this fine-scale approach to defining stocks provides an effective conservation and management strategy for restricting take geographically and nu-

merically to prevent depletion of marine mammal populations and for prescribing mitigation that is appropriately tailored and scaled.

In addition, geographic regions themselves serve different biological purposes for marine mammal stocks. Some areas are vital to foraging, others are migratory corridors, and still others are vital to breeding, calving, and reproduction. The biological significance of a particular habitat or region is critical for determining whether the taking will have a negligible impact on the population of marine mammals and result in the least practicable adverse impact on its habitat.

Removing the requirement that the incidental take be restricted to a specified geographic region is contrary to effective conservation and management practices that limit take to narrowly defined marine mammal stocks on a restricted geographic basis to avoid depletion. It also jeopardizes the MMPA's goals of habitat conservation as it undermines effective consideration of the biological role or significance of the habitat to that marine mammal stock.

Scientific Permitting Issues

Question 3. What concerns would you have with proposals to allow general authorizations?

Answer. The MMPA currently contains a general authorization for scientific research directed on marine mammals that will cause no more than level B harassment. In addition, section 101(a)(5)(A) provides for 5-year authorizations of incidental takes for specific activities, subject to reasonable requirements established in that subsection. Finally, section 101(a)(5)(D) provides for 1-year streamlined authorizations for incidental takes by harassment only, again subject to reasonable conditions such as monitoring and reporting. Given these existing provisions, we are unclear why additional authorizations are necessary.

Co-Management—You have raised a number of concerns with the Administration's proposals on co-management of subsistence stocks.

Question 4. Do you support any changes to the current management of these stocks? What solutions would you propose?

Answer. The management history of the subsistence harvest of beluga whales in Cook Inlet illustrates the need for proactive Federal intervention and management to avoid a marine mammal species becoming eligible for listing as depleted under the MMPA. While The Ocean Conservancy does not oppose subsistence use, we believe that in cases where marine mammal stocks are designated as strategic, the Federal government should be given the discretion to intervene and work with Native communities to monitor and regulate harvests to ensure the long-term health of the stock and sustainable subsistence harvests. The purpose of the definition of "strategic" marine mammal stocks in Section 3(19), 16 U.S.C. § 1362(19), is to identify unsustainable levels of take so that appropriate action can be taken to avoid listing that stock as depleted under the MMPA or as threatened or endangered under the ESA. Therefore, we propose that Section 101(b), 16 U.S.C. § 1371(b), be amended to allow the Secretary to prescribe regulations governing the taking of members of a strategic stock by Native communities.

Again, The Ocean Conservancy does not oppose subsistence hunting when conducted in a sustainable manner; however, we believe that future co-management agreements should generally be limited to stocks that are not strategic or depleted. As stated above we support harvest management agreement for all non-strategic stocks as long as the agreement considers take throughout the entire range of the stock, includes all Alaskan Natives that engage in subsistence use of that particular marine mammal stock within the area covered by the agreement, provides that any harvest of a stock covered by the agreement is sustainable and designed to protect the stock from becoming depleted or strategic, and contains effective provisions for monitoring and enforcement. A harvest management agreement should also provide for review and revocation of the agreement, tie violations of the agreement to the penalty provisions of the Act, and provide grants for research, monitoring, and enforcement of the agreement.

Before a harvest management agreement is finalized, or final implementing rules or regulations are published, the public must be afforded an opportunity for notice and comment. We do not believe that the Secretary should be required to consult with Alaska Native Tribes and Tribally Authorized Organizations on depletion determinations under section 3(1)(A) or to provide them with an advance copy of draft proposed regulations under section 101(b)(3). The consultation provision under section 3(1)(A) currently only applies to MMC and its Committee of Scientific Advisors on Marine Mammals; section 101(b)(3) of the Act already provides adequate opportunity for notice and hearing by interested members of the public. We do not oppose

the Administration's provisions for cooperative enforcement, authorizations of appropriations, and sovereign authorities/disclaimer.

The Ocean Conservancy looks forward to working with Alaska Native Tribes and Tribally Authorized Organizations on this Title.

Question 4a. What are your greatest concerns with the Administration's approach?

Answer. There are several outstanding areas of disagreement between the Marine Mammal Protection Coalition (MMPC) and the Administration with respect to Title II of Administration's reauthorization bill:

Scope of Agreements: The MMPC would not authorize future agreements for species or stocks that are strategic, depleted, or listed as threatened or endangered. Existing agreements would not be affected.

Management Plans: The MMPC would require that each Alaska Native Tribe that engages in subsistence use of the affected stock or species within the area covered by the plan be a signatory to the agreement. It would also require that plans be designed to prevent such stock or species from becoming depleted or strategic. In comparison, the Administration's bill would only require that the plan be designed to prevent populations from becoming depleted.

Review and Revocation of Plans and Agreements: The MMPC would add a provision requiring the Secretary to review agreements every 3 years or whenever significant new information suggests that the mortality or serious injury of marine mammals subject to the plan is having, or likely to have, an immediate significant adverse impact on the stock or species. It would also authorize the Secretary to revoke an agreement if the actions of the Alaska Native Tribe or Tribally Authorized Organization that are parties to the plan do not comply with the agreement or the requirements of section 101(b) of the MMPA. Before revoking an agreement, the Secretary would be required to notify them and give them an opportunity to correct deficiencies.

Effect of Designation as Depleted or Strategic: The MMPC would authorize the Secretary to prescribe regulations under section 101(b) if a species or stock subject to an agreement is designated as depleted or strategic. It would authorize the Secretary to solicit recommendations on those regulations from affected Alaska Native Tribes and Tribally Authorized Organizations prior to publication of proposed regulations. In comparison, the Administration's bill would only apply to a depleted stock, require the Secretary to provide draft proposed regulations to them and to demonstrate that those regulations are the least restrictive measures upon subsistence use.

Public Notice and Review: The MMPC would also require public notice and opportunity for comment on draft regulations to implement an agreement.

Emergency Regulations: In the event that mortality or serious injury is having, or likely to have, an immediate and significant adverse impact on a species or stock subject to an agreement, the MMPC would authorize the Secretary to take actions to mitigate such significant adverse impacts, including modifying the agreement or suspending the harvest. Emergency regulations would be published in the Federal Register and remain in effect for up to 180 days, unless they are extended for up to an additional 90 days.

Consultation with Tribes and Tribally Authorized Organizations on Depleted Determinations: The MMPC would delete this provision.

Animal and Plant Health Inspection Service (APHIS)

Question 5. Currently, wild marine mammals fall under the authority of NMFS and FWS in the wild. However, the primary authority gets passed to APHIS if the marine mammals are placed in public displays. Does NMFS/FWS play any role in the oversight of marine mammals in public displays?

Answer. NMFS/FWS play a role in the oversight of captive marine mammals primarily through the issuance of permits to public display facilities. There are three requirements for a public display permit: a facility must have a professionally-recognized education program, must hold an APHIS license, and must not limit admission beyond an entrance fee. NMFS/FWS cannot require any additional permit conditions. Prior to the 1994 Amendments, NMFS/FWS could issue public display permits with conditions directly related to marine mammal welfare and survival; these conditions were often tailored (beyond the general care and maintenance standards mandated under APHIS) to the particular animal(s), facility, and/or transport situation to be covered by the permit. This coordination between NMFS/FWS and APHIS was accomplished through a Memorandum of Agreement.

It is important to note that NMFS/FWS have numerous marine mammal biologists on staff (at the national headquarters and in its regional offices and fisheries science centers), including marine mammal veterinarians. APHIS has one marine mammal specialist at its national headquarters. All other APHIS staff, nationally and regionally, involved in inspecting and otherwise overseeing captive marine mammal facilities have participated in a short training course on marine mammal care requirements.

NMFS/FWS play a more active role in imports of marine mammals for the purpose of public display. Import permit applications are published in the Federal Register and subject to public comment. NMFS/FWS have the authority to specify methods of capture, supervision, care, and transportation pursuant to the import. This public and agency oversight allows for careful scrutiny of import requests that may involve animals captured abroad illegally, at risk of carrying infectious diseases, or otherwise acquired or transported under circumstances that may not comply with the protective measures of the MMPA.

Question 5a. Does APHIS ever consult with NOAA/FWS on issues regarding the care and maintenance of captive marine mammals? Would that be useful?

Answer. APHIS has consulted with NMFS/FWS on care and maintenance issues since the 1994 Amendments, but these have been infrequent and informal consultations, usually undertaken when there is a particularly controversial situation involving a captive marine mammal facility or import. The most recent consultation of which we are aware involved the Suarez Brothers Circus polar bears. APHIS did consult with FWS on the holding conditions and care for these bears, but ultimately did not conclude that their conditions violated the Animal Welfare Act. Nevertheless, one bear died during transport to a U.S. zoo when FWS finally acted to remove the bears from the circus.

Routine, formal consultation between APHIS staff and experts at NMFS/FWS, at a minimum when a complaint or inspection request is received for a particular facility, would certainly be useful. APHIS has limited expertise on the specialized biology of marine mammals, compared to NMFS and FWS. Clearly it would be an optimal utilization of available agency expertise for APHIS staff to formally consult with NMFS/FWS staff whenever questions arise (through an inspection, through a citizen or advocacy organization complaint, or during a public comment period for a permit application) as to the adequacy of a facility's care or conditions.

Question 5b. Concerns have been raised over the years with respect to the capabilities of APHIS to ensure adequate care for marine mammals on display (*e.g.,* with respect to Suarez Circus and the dolphin "petting pools"). What additional role might NMFS/FWS play to ensure the well being of these animals?

Answer. NMFS/FWS have marine mammal biologists and veterinarians with whom APHIS could consult on a routine, formal basis whenever questions arise as to the adequacy of a facility's care or conditions. In addition, APHIS could consult with NMFS/FWS whenever issuing a license to a new facility and whenever the renewal of a license of an extant facility is accompanied by serious questions regarding the adequacy of that facility's care or conditions. The situation prior to the 1994 Amendments, under the Memorandum of Agreement, reasonably capitalized on the expertise available at NMFS/FWS. The current situation limits the utilization of agency expertise in a way that is arguably not in the best interests of captive marine mammals.

Fishery Interactions

Question 6. NMFS can require vessels in Category I and II fisheries to take observers on board. Funding to provide adequate observer coverage has been found to be lacking. NMFS reportedly has not actively enforced this requirement when captains refuse to take an observer on board. Do you consider the observer program necessary to help the Take Reduction Plans achieve their goals? If so, how should observer capabilities be improved?

Answer. The management framework established by the 1994 amendments to the Marine Mammal Protection Act can be effectively implemented only if bycatch levels are measured with sufficient reliability (accuracy and precision) to determine if and when excessive take is or may be occurring. The purpose of a take reduction team is to recommend measures that will reduce the number of takes to a tolerable level, and the efficacy of recommended measures can only be assessed if bycatch levels can be reliably estimated. Thus, reliable estimation of bycatch is fundamental to the identification and description of interaction problems and to feedback regarding the efficacy of the management response. Some teams have questioned the effectiveness of existing observer programs for detecting bycatch and changes in bycatch of marine mammals. Observation or monitoring of some fisheries is either absent altogether or insufficient to allow even minimal estimates of bycatch. For some fisheries

that are observed, the data do not provide the precision needed to estimate bycatch levels with confidence and the estimated power of the observer-based monitoring program to detect a real change in the bycatch rate of some species is low.

Therefore, the observer program is absolutely necessary for the Take Reduction Plan to achieve its goals. First, the bycatch data provides the basis upon which to evaluate takes against the potential biological removal level (PBR). These data are then integral to the development of bycatch reduction strategies. Once developed and implemented, the effectiveness of those strategies in reaching the goals of the Take Reduction Plan are evaluated using observer data.

Congress must dedicate sufficient resources to the observer program so that the program can achieve the following:

1. Develop effective monitoring strategies for all fisheries and gear types to reliably determine the level of interaction with marine mammals.
2. Develop and implement reasonable monitoring standards such as the level of observer coverage needed to address interaction issues with an acceptable level of certainty.
3. Increase monitoring coverage where existing levels do not meet minimal standards.
4. Distribute monitoring effort temporally and geographically to ensure that monitoring requirements of the Marine Mammal Protection Act are addressed for all stocks.
5. Provide more robust assessment of the specific factors contributing to marine mammal mortality or serious injury.
6. Provide better assessment of fishery effort.

Question 6a. Is NMFS actively enforcing the requirement for observers to be taken on vessels in Category I and II fisheries? If not, why not, and what can be done to improve this situation?

Answer. Based on conversations at recent Bottlenose Take Reduction Team meetings, NMFS enforcement officers and Observer Program staff indicated that NMFS is not fully enforcing the requirement that Category I and II fisheries take observers. In some ports, fishermen still frequently refuse to take observers. The Take Reduction Team expressed its concern to NMFS but was given no reason as to why NMFS was not taking action against fishermen who outright refused to take observers. We urge Congress to increase the penalties associated with this infraction and require NMFS to provide a report on its enforcement efforts under the Act.

Question 6b. Many problems have been cited with the effectiveness of the Take Reduction Team process. Given the limited number of Take Reduction Teams established, Take Reduction Plans developed and implemented, difficulties in meeting statutory and regulatory deadlines and other concerns, is the TRT process an adequate tool to reduce the interactions of marine mammals and fisheries?

Answer. The Ocean Conservancy firmly believes that the Take Reduction Team process is an effective means to reduce marine mammal mortality and serious injury in commercial fishing operations. Once implemented, the Pacific Offshore Take Reduction Plan reduced takes of marine mammals by 75 percent, reducing takes below PBR. The team has been a model and has been expanded to address other fishery interactions, including those involving sea turtles. The Gulf of Maine and Mid-Atlantic harbor porpoise Take Reduction Plan has reduced harbor porpoise takes to below PBR and the mortality and serious injury associated with these fisheries is now on its way to approaching the zero mortality rate goal, the second of two objectives mandated by take reduction plans, under the Act.

Question 6c. How accurate is our information with respect to numbers of marine mammals "taken" as bycatch in commercial fisheries?

Answer. The bycatch information is as accurate as can be expected given the low level of observer coverage. As previously stated, Congress must appropriate increased funds and NMFS must dedicate those funds to increase observer coverage and improve the monitoring of bycatch. Increased observer coverage will greatly improve the accuracy of bycatch estimates and allow NMFS to target its resources at those fisheries that must reduce their bycatch of marine mammals to meet the goals of the Act.

Question 6d. How effective is the current linkage between TRTs and the Regional Fishery Management Councils with respect to bycatch reduction efforts?

Answer. The Regional Fishery Management Councils have representatives on the Take Reduction Team; nevertheless the linkage between the team and the councils is still poor. Many Regional Fishery Management Councils take management actions with little or no consideration of bycatch reduction measures that may be in

place under a Take Reduction Plan. For example, the Gulf of Maine Harbor Porpoise Take Reduction Plan utilized fishery management closures as a mechanism to reduce harbor porpoise mortality. The combination of these closures and the additional requirement of acoustic deterrent devices (*e.g.,* pingers) has resulted in significant reductions in harbor porpoise bycatch. However, if the New England Fishery Management Council takes unilateral action to remove or change these closures, without consideration of harbor porpoise bycatch, the bycatch could increase. Although NMFS recognizes this as a potential problem and has indicated that it is prepared to adopt the fishery management closures as harbor porpoise bycatch reduction closures under the MMPA, the failure to do so leaves bycatch reduction measures vulnerable to the actions of the councils. If fishermen want the benefit of fishery management closures and measures to be included in Take Reduction Plans as part of an overall bycatch reduction strategy, there must be closer coordination between the two bodies and with the Agency, between the Office of Protected Species and the Office of Sustainable Fisheries.

Question 6e. The Atlantic Large Whale TRT appears to be struggling in achieving their objectives. Could you comment on why they are having such problems and how these might be overcome or avoided in the future?

Answer. Since its inception, the Atlantic Large Whale Take Reduction Team (ALWTRT) has been engaged in an iterative process to develop, test, and require the use of "whale safe" gear. Bycatch reduction measures such as weak links were largely untested and the breaking strength that would likely achieve the greatest risk reduction was a matter for research. Over the years, the ALWTRT has continually worked to further refine and implement additional bycatch reduction measures and gear modification requirements in the face of continued entanglements of right whales and humpback whales. Many believe that to achieve truly "whale safe" gear, vertical lines must be eliminated and low-profile bottomlines must be developed. The latter includes such technology as sinking groundline or neutrally buoyant line. These lines would reduce the risk of entanglement associated with floating line that can float as much as 20 feet above the bottom when used between lobster traps/pots. The major impediment to deploying this technology is the cost associated with requiring lobstermen to change from floating line to sinking or neutrally buoyant line, which would likely cost in the tens of millions of dollars. An industry funded loan or government subsidy or loan would likely allow the industry to convert to using this gear more quickly than the proposed four to five year phase-in periods.

Question 6f. The Administration's bill proposes to let the Secretary only develop take reduction plans for the strategic stocks that interact with Category I and II fisheries. NMFS would no longer be required to develop plans for stocks that are listed under the Endangered Species Act but do not have a high fishery-related mortality. It is understandable that the agency has to focus their limited resources. However, is it necessary or advisable to address limited resources in this way, instead of placing such stocks at a lower priority for plan development? Isn't this particularly an issue as new fisheries are developing, and our knowledge of marine mammals and fishery interactions increases?

Answer. We are sympathetic to the need for the agency to focus its limited resources. However, Congress addressed this issue under section 118 with regard to monitoring takes of marine mammals by requiring NMFS to allocate observers according to the following priorities: (1) are listed as endangered or threatened; (2) are strategic stocks; (3) are stocks for which the level of incidental mortality and serious injury is uncertain. 16 U.S.C § 1387(d)(4). The Ocean Conservancy would prefer if Congress adopted a similar type of priority setting mechanism for take reduction plan rather than the Administration's proposal. We share your concerns that as fisheries develop new marine mammal fishery interactions may emerge that would benefit from strategies developed through a take reduction process.

Recreational Fisheries

Question 7. The Administration bill proposes to make the MMPA's commercial fisheries' requirements applicable to certain recreational fisheries as well. What is the problem you are trying to fix with these proposed changes? Are there specific fisheries or categories of fishers that are the target of this proposal?

Answer. Some non-commercial fisheries use gear similar or identical to commercial fishing gear and, as a result, are taking marine mammals at rates potentially equal to or greater than rates of incidental bycatch in commercial fisheries. This issue arose in the course of the Bottlenose Take Reduction Team where representatives from North Carolina noted that the public can obtain a permit to fish gillnets recreationally in areas where the team was attempting to regulate commercial gillnet fishing. However, according to NMFS, there are currently no mechanisms within the MMPA to monitor, track, or mitigate this take. As a matter of equity,

and for purposes of effective marine mammal conservation, non-commercial fisheries that employ gear similar to commercial fishing gear and that have the same potential to take marine mammals should not be exempt from the Act. Therefore, The Ocean Conservancy supports the Administration's proposed amendments to include these fisheries under the provisions of Section 118.

Question 7a. Reportedly, there are 2.2 million anglers who fish in salt water, on an average of 10 times a year. How can these proposed changes be implemented when there are so many fishers?

Answer. While we cannot speak for NMFS, the provision is crafted narrowly so that only those fisheries that have interactions will be listed as Category I or II fisheries. It is not the position of The Ocean Conservancy that every recreational fisher be included under the provisions of section 118 and be required to get an authorization to take marine mammals. Rather we are only interest in regulating those recreational fisheries that would qualify under the definition of Category I and II fisheries. It is those fisheries that should be include under the provisions of section 118 and the take reduction team process.

Question 7b. Are there not more narrowly focused solutions that could target select groups of recreational fishers rather than making such broad changes?

Answer. We believe that the Administration's bill offers a narrowly focused alternative to target those recreational fishers that are using gear identical or similar to commercial fishing gear that has the same likelihood to kill or seriously injure marine mammals. These are the very fisheries that should be regulated under the provisions of section 118.

Question 8. Sea Otters—Southern sea otters (found in California), listed as threatened under the ESA, were steadily increasing until their population began to decline in 1995; record numbers of dead otters have washed ashore in California this year.

The bill proposes to list information on the southern sea otters in section 118, increasing the efforts dedicated to gathering information on these otters. In your testimony you argue that this change could result in the authorization of incidental take of these otters, which is currently prohibited. Could you please explain how this could come about?

Answer. Southern sea otters have been expressly exempt from the section 118 program since its inception. The reason for doing so is twofold: (1) sea otters are especially vulnerable to incidental take in fishing nets and are protected as a result of California law that imposes a ban on such nets throughout the species' range; and (2) a special law, Public Law 99–625, governs the applicability of incidental take prohibitions for southern sea otters. Under 99–625, zones are established where no take is allowed, as well as a management zone where incidental take is not prohibited. Currently, the U.S. Fish and Wildlife Service is reviewing whether the program established under Public Law 99–625 has been a failure. Until that determination is made, it is inappropriate to include the southern sea otter under section 118, because that would create the potential for authorized incidental take within the no take zone.

Based upon this concern, including the southern sea otter under even a portion of the section 118 program is a matter of concern. Taking the step could result in claims that incidental take generally is allowed under section 118. Even if those arguments are rejected, the fact the sea otters are included under one aspect of section 118 is likely to lead to arguments from parties favoring incidental take of this species in the no take zone to expand the basis for section 118 regulation of this species to include a general incidental take authorization. The threat of such a political campaign to expose sea otters to the risk of incidental take prior to the completion of the FWS review of the Public Law 99–625 program is a compelling reason to continue to exclude this species from section 118.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. JOHN F. KERRY TO PETER L. TYACK

Harassment

Question 1. Did the NRC report recommend a change in the definition of "Level A" harassment? Please explain why or why not.

Answer. The 2000 NRC Report "Marine mammals and low-frequency sound" did not specifically suggest a rephrasing for the definition of "Level A" harassment. However, on p 67 the report recommends a specific criterion for safe exposures to sound with respect to level A harassment. There is a well-developed experimental technique to safely study effects loud noises on hearing. In these experiments, one measures the sensitivity of hearing of the subject, then exposes the subject to a loud

noise, and then immediately tests the sensitivity of hearing one more time. If the hearing is less sensitive, this is recorded as a temporary threshold shift, or TTS. This is a harmless test that is used routinely for humans and land animals. The 2000 NRC report advocated a preliminary criterion that any sound that produces 10 dB or less of TTS should be viewed as not posing any risk to the auditory systems of marine mammals if the exposures are separated by enough time to allow full recovery (at least 24 hours). There has been considerable progress in TTS studies of marine mammals in the last decade, giving us guidance for acoustic criteria using this criterion for a variety of marine mammal species.

Question 1a. In the definition of "Level B" harassment, did the NRC report suggest changing the standard in "Level B" harassment from the "potential to disturb" to "likely to disturb"? Please explain why or why not.

Answer. No. The 2000 NRC report did recommend a change in the definition of harassment, but did not change the existing wording about "potential to disturb." The main focus of discussion was the need to discriminate between short minor responses that could not harm an animal versus disruption of behavior that could pose a risk. I can only give a personal view about why the committee did not consider changing the "potential to disturb" language, but to this group of scientists, "potential to disturb" seemed a reasonable criterion meaning "more than a negligible chance." I think that the reason this has come up recently stems from legal as opposed to scientific judgments. For example, in the Opinion And Order On Cross-Motions For Summary Judgment in the SURTASS LFA case, *NRDC et al.,*v. *Evans et al.,* the judge wrote "In fact, by focusing on *potential* harassment, the statute appears to consider all of the animals in a population to be harassed if there is the potential for the act to disrupt the behavioral patterns of the most sensitive individual in the group." [p. 27] There is so much variability in responsiveness of animals to sounds, that this is an extremely conservative interpretation. It is also very difficult to estimate the threshold for the most sensitive individual in a population of millions of animals. Certainly no such threshold has ever been applied to protect humans. It is much more conservative than thresholds used to protect hearing or toxic effects of chemical contamination. The way scientists often deal with this situation is to develop a risk function. The same opinion in the LFA case supported the Risk Continuum, which was the name of the risk function developed in the LFA Environmental Impact Statement: "the Risk Continuum provides a more accurate measure of potential effects on individual animals within a population than the use of an "all or nothing" threshold above which all animals are considered taken and below which no animal (even the most susceptible) would be taken." [p 28]

I think that the risk function approach is the most valid one for assessing the potential for takes. If Congress wants to set a threshold for the probability that an exposure will lead to a take, then I think that the cleanest way to do this is for the regulatory language to specify a precise probability, such as 20 percent or 50 percent.

Question 1b. The NRC definition would define "Level B" harassment as the potential for "meaningful disruption of biologically significant activities." What does the term "meaningful disruption" mean?

Answer. My view is that meaningful disruption means the same thing as biologically significant disruption, and I think the only reason why the committee did not recommend "biologically significant disruption of biologically significant activities" was the copy editing desire not to use the same phrase twice in the same sentence.

Question 1c. How does the term "meaningful disruption" relate to individual marine mammals? How does the NRC's population impacts approach fit with the inclusion of impacts to individuals?

Answer. The term "meaningful disruption" was part of the NRC committee's recommendation for a new definition of harassment. This harassment definition is important in the context of the MMPA prohibition on taking marine mammals, where "taking" includes harassment. While the definition includes "the potential to disturb a marine mammal or marine mammal stock," I do not personally understand what it means to disturb a stock, other than to disturb all of the individuals in the stock. The "or marine mammal stock" qualification seems redundant to me. If an action disturbs all 300 or so right whales at the same time, it disturbs the stock once, but the individuals 300 times. The odds of this kind of stock-wide disruption seem vanishingly small. Clearly the primary role of the definition of harassment is related to the prohibition on taking individual animals. Therefore this definition applies primarily to defining takes of individuals by harassment.

My understanding of the NRC suggestions for defining harassment is that they address the threshold for considering a change in behavior to be a level B take. The

concept is that some behavioral responses may be so minor as to pose no chance of adverse impact to the individual. The determination of adverse impact from a conservation perspective should be based on the chance that the disruption could affect the ability of the individual animal to survive, grow, and reproduce. This determination can be improved using information from other individual animals, ideally integrated into a population model.

Question 1d. Do we have enough science to predict "biologically significant" effects for marine mammals, at the time an activity is planned, with a great degree of certainty? If we do not, how could potential effects from activities, particularly those for which we have little knowledge as to effects, be addressed under the NRC approach?

Answer. The scientific methods necessary to predict whether an activity poses a risk of biologically significant effects are advancing rapidly. Nothing could make this field progress more than having Congress specify a "biological significance" standard for regulating impacts of seafaring activities. If Congress makes this change, I am confident that the critical science will quickly follow. If the language also requires the same standard of environmental review for all activities, it will greatly improve the protection of marine mammals from the risks of unintended impacts.

Question 1e. Isn't it the case that tests on marine mammals with respect to potential impacts of LFA-sonar were not done above a certain decibel level out of concern for possible impacts on them? Yet the authorization allows the deployment of LFA-sonar at these levels?

Answer. Yes, at the outset of the tests on the impact of the LFA sonar on behavior of marine mammals, we expected strong behavioral responses, such as avoidance responses, in the 120–160 dB re 1 μPa exposure range, based upon previous research. Yet few responses were seen in the 120–155 dB range that raised our concern about adverse impacts. Many of these results, such as the impact of LFA signals on the length of humpback songs, have been published and are available for independent review. Information from other sources suggested a 180 dB re 1 μPa threshold for the onset of injury. Therefore, the risk function was set to acknowledge the possibility but low probability of adverse reactions as low as 120 dB, with risk increasing rapidly above the zone that was tested, where few adverse reactions were seen. The function estimated 50 percent "level B takes" at 165 dB and 95 percent at 180 dB, above which all exposures were classed as level A takes. This kind of curve fitting is common in scientific research, and I believe is likely to be a conservative alternative to exposing animals to levels so high that they are close to those thought to pose a risk of injury. The only situation in which this approach would not provide a conservative estimate of risk is if there were a very sudden switch from very low probability of response near 155 dB to a very high probability a few dB higher. The data on reactions of marine mammals to sound suggest that this kind of sudden transition is quite unlikely.

Question 1f. What other concerns regarding potential impacts were identified, such as use of LFA-sonar inshore?

Answer. When the responses of migrating gray whales to LFA signals were tested in the inshore migration corridor, about 50 percent of the whales avoided exposure of sound levels greater than 140 dB. This response seemed to be specific to the inshore location, for when the sound source was moved a few kilometers offshore of the migration, this avoidance response disappeared, even for gray whales that were far enough offshore to pass near the sound source.

Question 1g. Were these concerns appropriately addressed in your view in the final authorization?

Answer. For concerns raised by the responses of whales to inshore but not to offshore sources, the answer is yes. The concerns about the response to sources within a few kilometers of the coast is addressed by the condition that the LFA system will not transmit sound within 12 nautical miles of the coast.

Question 1h. Knowing what you do about potential impacts, does it make sense for this kind of activity to escape the incidental take process, with the result that it would cannot be reviewed by NMFS or FWS?

Answer. I am not sure what this question refers to. In my testimony I suggested that the Incidental Take process should be modified specifically so that activities like SURTASS LFA would be appropriate for the incidental take process. I strongly believe that it is the status quo that does not make sense. What I know about potential impacts suggests that many activities with high risk of potential impacts, such as commercial shipping, currently completely escape the incidental take process and are not reviewed in advance by NMFS or FWS. Even after ships strike and kill whales, I am not aware that they have been charged with violations of the prohibi-

tion on killing marine mammals under the Marine Mammal Protection Act, nor have these predictable takes resulted in monitoring or mitigation measures.

Scientific Permitting Issues

Question 2. Wasn't your recent research project enjoined by a court, not because of the harassment definition, but because of NEPA?

Answer. Yes. I do not think that the definition of harassment had anything to do with the ruling in this case. The crux of the judge's ruling was a disagreement with the NMFS decision that the amendments to my permit qualified for a categorical exclusion from the need for a new environmental analysis under NEPA.

Question 2a. Given our lack of knowledge about the likely impacts of various activities on various species of marine mammals, how could NMFS or FWS feasibly develop the kind of risk-based general authorization scheme you suggest?

Answer. We have plenty of information right now to order activities by relative risk, even if we cannot quantify the precise impact of each sound on each population of marine mammals in each behavioral state. For example, if I want to evaluate the responses of whales to the propulsion sound of a vessel for an hour-long experiment, I must go through a permitting process that often takes 6 months and imposes stringent reporting requirements. Yet the thousands of commercial ships that pose a significant risk of vessel collision along with the potential impact of the propulsion noise are completely unregulated. Even before we learn to quantify the precise risk, we can say that this is a completely unbalanced priority for regulation. The research to solve the problem is regulated, while the ships that cause the problem are not. Right now, on the basis of the intensity of the sources, the extent of their use, and proximity to marine mammal hot spots, it would be relatively simple for a risk-based authorization scheme to focus regulatory effort on the activities posing the greatest risk. Such a scheme would be much more effective at protecting marine mammals from the effects of manmade noise than the current system.

Question 2b. Are you suggesting in your written testimony that we can safely presume that all scientific research will have minimal potential to harm marine mammals?

Answer. No. Some kinds of research might involve intentionally killing animals to sample them. For example, during an epidemic, vets might request a lethal take to sample a wild marine mammal. My point was that behavioral research on wild marine mammals is regulated very heavily compared to non-research activities that pose much greater potential for harm to individuals and populations.