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Statement

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Mr. Chairman and Members of the Subcommittee, thank you for the opportunity to present our views on the Marine Mammal Protection Act, specifically the take reduction teams. My name is Nina M. Young; I am the Director of Marine Wildlife Conservation for the Center for Marine Conservation.

SUMMARY

In 1993, the Center for Marine Conservation was one of the conservation groups that negotiated with the fishing industry to develop a proposal that became the basis for the 1994 amendments to the Marine Mammal Protection Act. The take reduction team process is a direct outgrowth of that negotiation. Both the fishing industry and the conservation community that had engaged in this negotiation, believed that is was important to create a multi-party negotiation process to devise strategies to eliminate the entanglement of marine mammals in commercial fishing gear while maintaining the viability of those commercial fisheries. Despite difficulties in balancing the need to reduce marine mammal kills and minimize economic impacts on fishermen, the mediated take reduction team process has successfully produced three consensus take reduction plans and succeeded in establishing better working relationships among the different interest groups.

In every take reduction team there were obstacles of familiarity, acceptance and trust that had to be overcome. Each take reduction team was unique--it had its own complexion and dynamic, for example, the Gulf of Maine Take Reduction Team had a lengthy history together in its previous incarnation as the Harbor Porpoise Working Group and its actions were intimately tied to the New England Fishery Management Council's action to recover groundfish. In contrast, the Atlantic Offshore Take Reduction Team had several participants from competing fisheries who were suspicious and sometimes less willing to accept the basic premises, let alone the outcome. Moreover, the debate was colored by closures of the various fisheries represented on the team and by pre-existing gear conflicts among the commercial fishing groups that have little to do with the marine mammal conflicts. The Atlantic Large Whale Take Reduction Team, who did not reach consensus, had the added pressure of an ongoing lawsuit and a stringent timeframe. Yet, throughout all of this the system worked. The facilitators have been essential in helping players get past these issues

and move through posturing to substance. Those teams that moved quickly through their concerns about the quality of the science--the population and bycatch estimates and the calculation of PBR—and into the development of take reduction strategies have faired the best in this process. Issues of team size and time available to negotiate were also critical. Smaller teams facilitated greater discussion and a sense that all participants could freely express their opinions. While the MMPA's six month deadline pushed the teams to achieve consensus, in two cases it did not allow sufficient time for consensus to be reached. The process would benefit from two additional meetings—one to review the final plan before it is submitted to NMFS and another during the comment period so the team can provide feedback to NMFS. In all situations the process provided a framework for dialogue among disparate groups—a dialogue that often resulted in creative research recommendations and strategies to reduce marine mammal entanglement in fishing gear.

However, the take reduction team process is a new way of doing business for the National Marine Fisheries Service (NMFS), fishermen, and conservation groups. The shift from adversarial advocacy to a participatory planning process is foreign to some of the players. NMFS is still struggling with the implementation schedule, how to implement the take reduction plans in regulations, either under the MMPA or through fishery management plans developed by the regional councils, the role of the take reduction team, and its level of commitment to this process. NMFS has yet to realize, at all levels, that consensus is hard-won. In addition, NMFS also fails to recognize that for the individuals that engage in this process it has the same importance as the fishery management council process. Consequently, if the take reduction team process is to be successful, NMFS must view this process as a priority partnership among itself and all of the various stakeholders. It must expect no less from itself than any of the other active participants. NMFS representatives to the take reduction team must have the ability to both evaluate the consensus from a legal perspective and commit the agency to that consensus. The NMFS representative cannot be passive, but instead must advise the team as to whether the consensus recommendation can be easily implemented and enforced, and if the research recommendation are achievable. It is unfair and undermines the process when the take reduction team members leave the process with false or unrealistic expectations. This means that the Regional Administrator, a representative from NOAA general counsel, and a NMFS enforcement officer must be present at the crucial times in the negotiations process when the consensus is being formed.

In further meeting its commitments, NMFS must also implement the take reduction plan within the statutory timeframes set out in the MMPA, provide the necessary resources to achieve adequate levels of observer coverage and carry out the research recommendations essential to informing the take reduction strategies. These concerns encompass the need for greater resources to implement the take reduction plans but also a greater commitment on the part of NMFS to the process and the plans.

Although some take reduction plans are showing signs of success, it is too soon to assess the effectiveness of the incidental take reduction teams, as many of the take reduction plans have only been implemented for approximately one year. Furthermore, when comparing the timetables for implementation of the take reduction plans to the timing of assessment of progress toward reducing takes to below PBR and achieving progress toward the zero mortality rate goal, it is clear that NMFS may not be able to fully evaluate progress under this regime at that time. Nevertheless, where the participants have been successful in developing a consensus document, most look favorably upon the take reduction team vehicle as a favorable alternative to the traditional adversarial notice and comment rulemaking process.

I. INTRODUCTION

The Marine Mammal Protection Act (MMPA) is the cornerstone of the United State's efforts to conserve and recover marine mammals. Since its enactment, the MMPA has prohibited the take of marine mammals incidental to commercial fishing unless authorized by an incidental take permit or a small take exemption. However, more than twenty-five years after the MMPA's enactment, marine mammals are still incidentally drown in commercial fishing gear and the regulation of such operations to protect marine mammals has become a critical, and often volatile, issue.

In 1988, the problem of the incidental take of marine mammals in commercial fishing operations reached its climax when it became apparent that National Marine Fisheries Service (NMFS) was unable to undertake the necessary determinations to authorize takes for affected marine mammal stocks. The resulting *Kokechik Fishermen's Association v. the Secretary of Commerce* court decision uncovered that the permit system was inherently flawed because there was insufficient information to be certain that incidental takes would not harm marine mammal stocks. Consequently, diminishing marine resources, insufficient federal funds, and inadequate information on marine mammal/commercial fisheries interaction forced fishermen and conservationists to develop creative initiatives to conserve marine mammals, marine habitats and species diversity, while still promoting economically viable fisheries. This prompted the first negotiation between representatives of the environmental community and the fishing industry to develop a proposal that would enable fishermen to go fishing, yet minimize the impact of that activity on marine mammals. This proposal became the basis for the MMPA Amendments adopted by Congress in 1988, which established an information-gathering program and an Interim Exemption Program for Commercial Fisheries.

Again, after analysis of the Interim Exemption Program and NMFS proposed long-term regime to authorize incidental takes in commercial fisheries, in 1993, the environmental community and the fishing industry held a second series of negotiations. They jointly developed a series of amendments that resulted in sweeping changes to the MMPA's provisions to govern the incidental take of marine mammals in commercial fisheries. Congress adopted these amendments in 1994. The amendments codified this negotiation process in the form of take reduction teams; consequently nearly six years into the implementation of these amendments, representatives of the fishing industry, conservation community, and federal and state agencies continue to work through these teams to develop measures to reduce the incidental mortality and serious injury of marine mammals in commercial fisheries.

In this paper we will evaluate the effectiveness of the take reduction team process and whether this type of cooperative approach can effectively develop management strategies that will reduce marine mammal incidental mortality and serious injury.

II. BACKGROUND ON THE MARINE MAMMAL PROTECTION ACT

A. Purpose and Objective of the MMPA

The Marine Mammal Protection Act (MMPA) is perhaps the most comprehensive marine mammal conservation and management legislation in the world. Passed to rectify the consequences of "man's impact upon marine mammals, which has ranged from what might be termed malign neglect to virtual genocide", the Act, enforced by the U.S. Departments of Commerce and Interior, governs every interaction within U.S. jurisdiction between an individual and a marine mammal. Its purpose is to protect marine mammal species of "great international significance, aesthetic and recreational as well as economic." The species included under the Act are whales, dolphins, porpoises, seals, sea lions, walruses, sea otters, manatees, dugongs, and polar bears.

B. The MMPA's Moratorium on Taking

The goal of the MMPA is that these marine mammal species "should be protected and encouraged to develop to the greatest extent feasible commensurate with sound policies of resource management." Another purposes is to "maintain the health and stability of the marine ecosystem." Congress also mandated that whenever consistent with these goals, marine mammals are to be protected and managed so that they do not "cease to be a significant functioning element of the ecosystem of which they are a part" or "diminish below their Optimum Sustainable Population (OSP)." A species or population stock that is determined to be below its OSP level, or is listed as endangered or threatened under the ESA, is designated as "depleted" under the MMPA.

Through the MMPA, Congress sought to achieve broad protection for marine mammals by establishing a moratorium on importation and taking. The MMPA also states that the "incidental kill or incidental serious injury of marine mammals permitted in the course of commercial fishing operations be reduced to insignificant levels approaching a zero mortality and serious injury rate."

III. IMPLEMENTATION OF THE 1994 AMENDMENTS TO THE MMPA--TAKE REDUCTION TEAMS AND TAKE REDUCTION PLANS

The 1994 Amendments to the MMPA set out a new regime to govern incidental takes of marine mammals during commercial fishing operations. The underlying premise of these amendments was: decisions on allowable takes should be based on assessments of the status of the marine mammal stock, and conducted within biological limits that protect the marine mammal stocks. The major elements of the 1994 amendments added three new sections to the MMPA: one requiring stock assessments, status determinations and calculation of the stock's potential biological removal level (PBR); a new section 118 setting out the requirements for fishermen, modeled largely after the Interim Exemption; and a new section 120, which provides a process whereby states and the National Marine Fisheries Service can address interactions between pinnipeds and fishery resources. We will focus on Section 118--the incidental take provisions--which includes vessel registration, observer coverage, emergency regulatory authority, attainment of the zero mortality rate goal, convening of incidental take reduction teams and preparation of take reduction plans, and prohibits intentional killing of marine mammals by fishermen.

Under the MMPA a take reduction plan is to be developed for each strategic stock that interacts with a fishery that frequently or occasionally kills or seriously injures marine mammals. Take reduction plans, among other things, are to include recommended regulatory and voluntary measures designed to reduce incidental mortality and serious injury, and recommended dates for achieving specific objectives. The immediate goal of a take reduction plan for a strategic stock is to reduce, within six months of implementation, incidental mortality and serious injury to levels less than the PBR calculated in the stock assessment. The long-term goal of the plan is to reduce incidental mortality and serious injury to insignificant levels approaching a zero mortality rate within 5 years, taking into account the economics of the fishery, existing technology, and applicable State or regional fishery management plans. The plans are to be developed by teams drawn from federal agencies, coastal states, regional fishery management councils, interstate fisheries commissions, academic and scientific organizations, environmental groups, commercial and recreational fisheries groups, Alaska Native or Indian tribal organizations, and others. Take reduction plans for stocks listed as endangered are to be consistent with ESA recovery plans.

To date NMFS has convened five Take Reduction Teams: (1) Gulf of Maine harbor porpoise take reduction team; (2) Mid-Atlantic harbor porpoise take reduction team; (3) Pacific offshore cetacean take reduction

team; (4) Atlantic offshore cetacean take reduction team; and (5) the Atlantic large baleen whale take reduction team.

All of these teams have completed and submitted to NMFS draft take reduction plans we will review the contents of these plans, NMFS implementation of the plans, and evaluate both the negotiated process and NMFS implementation of the agreement.

A. **Gulf of Maine Harbor Porpoise Take Reduction Team 1. Background on Harbor Porpoise Take in the Gulf of Maine**

The incidental catch of harbor porpoise in the Gulf of Maine multispecies sink gillnet fishery has been documented for nearly ten years. Pursuant to both the 1988 and 1994 MMPA amendments, NMFS classified the Gulf of Maine sink gillnet fishery as Category I, which denotes "frequent incidental takes of marine mammals." Fishers in Category I are obliged, when requested by NMFS, to take observers on fishing trips. Observers in this fishery documented historical catch of harbor porpoise incidental to the Gulf of Maine sink gillnet fishery of 2,900 in 1990, 2,000 in 1991, 1,200 in 1992, 1,400 in 1993, 2,100 in 1994, 1,400 in 1995, 1,200 in 1996, and 782 in 1997. In the harbor porpoise stock assessment, NMFS estimated the mean stock size at 54,000 animals and established a potential biological removal (PBR) level for this stock of 483 harbor porpoise Therefore, harbor porpoise are a strategic stock because the level of mortality in the fishery greatly exceeds PBR.

2. The Harbor Porpoise Take Reduction Team and Plan.

Because mortality exceeded PBR, NMFS established a take reduction team pursuant to section 118(f) of the MMPA. The harbor porpoise take reduction team was unique, in that it had a history of group efforts to define the level of incidental take and reduce that take. Both the Harbor Porpoise Working Group and the New England Fishery Management Council under the Multispecies Fishery Management Plan had attempted this task, but failed as evidenced by the bycatch estimates, which remained over 1,400 animals at the time the take reduction team was convened.

NMFS convened the Gulf of Maine Take Reduction Team (GOMTRT) in February 1996. The goal of the GOMTRT was to develop a consensus take reduction plan that contained measures the team felt were likely to reduce the incidental mortality of harbor porpoise in sink gillnets to PBR within six months of the plan's implementation. The GOMTRT met five times between February and July 1996 and submitted a consensus draft plan on August 8, 1996, within the six-month timeline stipulated in the MMPA. The core management plan focused on bycatch from Maine to Rhode Island and proposed reducing harbor porpoise bycatch by requiring a combination of pinger use--acoustic devices that are meant to warn cetaceans of the presence of a net--and the application of two types of time/area closures—one in which fishing is prohibited altogether and the other in which fishing is permitted only if nets are equipped with pingers. To the extent possible, the plan incorporated the NEFMC harbor porpoise and groundfish closures so as to limit the additional regulatory burden placed on the gillnet fishery. The agreement was also contingent on a rolling 6-month evaluation of the plan; a spring 1997 pinger experiment in the Mid-Coast area, modeled after the 1994 experiment, with a bycatch cap of 70 harbor porpoise; and research on pingers to investigate habituation and displacement of harbor porpoise, and evaluate the effects on other marine life. Finally, the plan prescribes

other measures that include: cooperation between fishermen and researchers in estimating gillnet fleet effort; outreach, training, and certification activities; enforcement; cooperation with Canada; and other mechanisms to strengthen the potential for successfully meeting the plans goals and objectives.

Although the MMPA requires that NMFS publish the plan within 60 days (October 7, 1996) the agency failed to do so for over one year (August 13, 1997). When NMFS did publish the plan as a proposed rule for public comment, it modified the consensus plan to be consistent with the NEFMC Framework Adjustment 19 to the New England Multispecies Fishery Management Plan—this resulted in modifications to plan's groundfish and harbor porpoise closures.

Meanwhile, during 1996 the NEFMC implemented a plan similar to the proposed harbor porpoise take reduction plan, including area closures and requirements for pinger use on gillnets. The GOMTRT, in December 1997, met and reviewed the bycatch data presented by NMFS, and agreed that the proposed plan, as published in the Federal Register in August 1997, would not reduce mortality below PBR. NMFS's data clearly showed under the NEFMC plan the overall bycatch levels remained unchanged, because as mortality dropped in some areas, effort shifts offshore caused bycatch to increase in those areas. The GOMTRT agreed on a number of additional measures to reduce bycatch in a report that it sent to NMFS on January 14, 1998. In devising these measures the GOMTRT considered potential changes, being considered by the NEFMC, to Framework 25 of the New England Multispecies Fishery Management Plan that included additional closures to protect severely depleted groundfish that partially overlapped existing marine mammal closures. The GOMTRT ultimately recommended expanded closures and pinger requirements.

By 1998, NMFS had violated every statutory deadline for developing the harbor porpoise take reduction plan and implementing regulations; moreover, NMFS also failed to comply with the MMPA's extended, statutorily-mandated date of April 1, 1997 by which time NMFS was to have established a plan that would reduce the take level to less than PBR. Because of NMFS's internal delays in implementing the plan combined with frequent changes to the New England Multispecies Fishery Management Plan closures to protect depleted groundfish stocks--which affected harbor porpoise bycatch--a situation emerged, in mid-1998, where there was still no adequate take reduction plan being implemented to reduce the harbor porpoise mortality—mortality that still numbered over three times the permissible level. Therefore, on August 21, 1998, two years after the original draft take reduction plan was submitted, the Center for Marine Conservation, the Humane Society of the United States, and the International Wildlife Coalition filed suit in U.S. district court to compel NMFS to adopt a final rule to implement a take reduction plan to protect harbor porpoises. The lawsuit's main points were that NMFS had violated the MMPA by failing to publish a take reduction plan to reduce the incidental mortality and serious injury of harbor porpoise below the PBR and that NMFS had violated the ESA by failing to take final action on its proposed rule to list harbor porpoise as threatened within the prescribed time frame.

NMFS had no defense under either statute and so a settlement was reached. In the settlement agreement between the plaintiffs and NMFS, the agency agreed to publish a final take reduction plan for the Gulf of Maine harbor porpoise by December 1, 1998, provide an update on the status of the research required by the take reduction plan, and provide information on harbor porpoise incidental take levels on a quarterly basis through December 2001. In addition, the

settlement agreement called for a phase-in of pingers in the Gulf of Maine and a biological status review of harbor porpoise by March 31, 2000 to determine whether the listing decision should be revisited.

The final rule was published on December 2, 1998 and included the following requirements for the Gulf of Maine: (1) Northeast Area, closed August 15 through September 13; (2) Cape Cod South Area, closed March 1 through March 31; (3) Massachusetts Bay Area, closed March 1 through March 31; (4) Mid-Coast Area, pingers required September 15 through May 31; (5) Cape Cod South, require pingers from December 1 through February 28/29 and April 1 through May 31; (6) Massachusetts Bay, require pingers December 1 through February 28/29 and April 1 through May 31; (7) Offshore Area, require pingers November 1 through May 31; (8) Cashes Ledge Area, closed February 1 through 28/29.

3. Evaluation of the GOMTRT Process and Plan.

In December 1999, the GOMTRT met to evaluate the progress on take reduction plan. NMFS indicated that the bycatch for the first eight months of 1999 was 227 harbor porpoises (174 porpoises off New England and 53 porpoises off mid-Atlantic coastal states). However, several takes of harbor porpoise during the fall in the Mid-Coast area will increase the estimate for the Gulf of Maine and may drive the bycatch over PBR. Therefore, while there have been significant reductions, it is still uncertain whether harbor porpoise bycatch will be below PBR; moreover, NMFS cannot say with certainty whether these reductions are due to the success of the plan or to extensive closures to conserve groundfish stocks, which likely contributed substantially to the reduction in harbor porpoise bycatch. The GOMTRT plans to: monitor progress toward PBR, continue the research called for in the initial take reduction plan, conduct experiments that will evaluate the effectiveness of pingers at a various frequencies, and investigate other mechanisms to reduce bycatch to ZMRG.

During the initial negotiations, there was lengthy debate over the adequacy of the bycatch and population abundance estimates. As noted, the GOMTRT recommended several research recommendations to address this concern. Once the fishing industry adopted a general acceptance of the available data, one of the critical elements that helped the GOMTRT achieve consensus was the use of a spreadsheet analysis. The analysis allowed the team to estimate bycatch reduction based on a formula that assigned pinger effectiveness levels to different times and areas where bycatch occurred, based on previous pinger experiments and bycatch estimates. The GOMTRT then closed areas with peak bycatch and bracketed the closure by requiring pinger use during the months on either side of the closure. This mechanism provided a clear means to evaluate the expected results of closures and pinger use.

NMFS failure to implementation the consensus plan was perhaps the greatest downfall in the process. While team members questioned every aspect of the science—the PBR estimate, the population, bycatch, and effort estimates, the GOMTRT eventually overcame these concerns to move forward to achieve consensus on a plan. NMFS violated the team's faith in the process by failing to implement the plan within the statutory timeframes. Consequently, the consensus take reduction plan was overtaken by the actions of the NEFMC to conserve harbor porpoise and depleted groundfish stocks. This resulted in several changes to the original consensus plan--one generated by the GOMTRT to the original proposed rule in 1997 and the other adopted at NMFS's discretion to the 1998 proposed rule. Additionally, even though the NEFMC has

several representatives on the GOMTRT, there is generally a lack of co-ordination between these two bodies, so much so, that actions taken under various FMPs threaten the conservation efforts of the GOMTRT and its plan.

Finally, the process was further marred by the lawsuit. Because of NMFS's failure to comply with the statutory timeframes of the MMPA, the conservation groups that had participated on the GOMTRT were forced to sue NMFS to implement the plan. Even though the lawsuit contested only NMFS's failure to meet the MMPA deadlines for implementation and not the adequacy of the plan itself, the suit created a air of divisiveness between members of the GOMTRT who objected to the suit and the plaintiffs. This was due, in part, to the belief by some members of the GOMTRT that the lawsuit resulted in changes to the plan, and therefore, the plaintiffs had violated the consensus agreement.

B. **Mid-Atlantic Take Reduction Team 1. Background on Harbor Porpoise Takes in the Mid-Atlantic**

The GOMTRT allocated approximately 100 harbor porpoise to the Mid-Atlantic and Canada for their portion of PBR. In the early 1990s stranded harbor porpoise began washing ashore in the spring along the Mid-Atlantic coast with net marks and other signs of fishery interactions. Beginning in 1995, NMFS placed observers on Mid-Atlantic gillnet fisheries and estimated the harbor porpoise bycatch at approximately 103 animals. However, between 1996 and 1998 harbor porpoise bycatch increased to 310 in 1996, 572 in 1997, and 446 in 1998, likely due to a combination of increased fishing effort and better observer coverage.

2. The Harbor Porpoise Take Reduction Team and Plan.

In February 1997, NMFS convened the Mid-Atlantic Take Reduction Team (MATRT) to address the incidental bycatch of harbor porpoise in Mid-Atlantic gillnet fisheries (from New

York through North Carolina). The MATRT included representatives of the Mid-Atlantic coastal gillnet fisheries, NMFS, state marine resource managers, the Mid-Atlantic Fishery Management Council (MAFMC), the NEFMC, the Atlantic States Marine Fisheries Commission (ASMFC), environmental organizations, and academic and scientific organizations. The MATRT adopted as its objective to determine when and where harbor porpoise were becoming entangled along the Mid-Atlantic and to develop recommendations for reducing bycatch below PBR in conjunction with the GOMTRT. Another objective of the MATRT was to develop recommendations for the collection and analysis of abundance, stock structure, and bycatch data for coastal bottlenose dolphins. The MATRT submitted a report to NMFS on August 25, 1997, which included both consensus and non-consensus recommendations.

The MATRT recommended management measures specific to the two predominant coastal gillnet fisheries--the monkfish and dogfish fisheries. It recommended that the timeframe for effectiveness be from January through April off New Jersey and from February through April off the southern Mid-Atlantic (Delaware, Maryland, Virginia and North Carolina). The MATRT's management measures were designed to achieve a 79% reduction in bycatch through a combination of gear characteristics that, through scientific analyses and modeling, demonstrated the greatest potential for bycatch reduction. For the monkfish fishery, these

measures included reduced floatline length (<3,900 ft. or <4,800 ft. depending on the location), larger twine size (>90 mm), mesh size, (>12 in.) tie downs, and a limit of 80 nets.

For the dogfish fishery, the measures included reduced floatline length (<3,000 ft or < 2,118 ft depending on the location), larger twine size, (>.81mm) mesh size, (<6.5 mm) and a 45-net limit. Additionally, the MATRT recommended time/area closures for the monkfish fishery in New Jersey waters (February 15-March 15) and in the southern Mid-Atlantic (20 day block between February and April, chosen by the fishermen) but no time/area closures for the dogfish fishery.

The MATRT also made recommendations for education and outreach programs to fishermen; measures to improve bycatch estimates; the need for increased observer coverage; and an evaluation of the observer program to ensure that observer coverage is random and representative.

The MATRT recommended five research areas for the Mid-Atlantic coastal bottlenose dolphin: (1) identify functionally discrete stocks of coastal bottlenose dolphins; (2) generate reliable population estimates for coastal bottlenose dolphins; (3) generate reliable estimates of fishery-related mortality and injury; (4) continue and improve regional stranding networks; and (5) characterize fisheries that may interact with bottlenose dolphins.

During the deliberations, the MATRT determined that a substantial portion of the harbor porpoise bycatch was from New England vessels who were fishing with lighter twine, longer nets, and with longer soak times. This fishing strategy resulted in a higher level of harbor porpoise bycatch than the gear used by the local fishermen;consequently, the MATRT based its bycatch reduction strategies on fishing practices used by local fishermen. Recognizing that the gear modifications proposed by the team would require New England vessels to make a sizable financial investment in new gear if they were to fish in this area, the fishing industry proposed a federally funded pinger experiment. However, the MATRT did not achieve consensus on whether a scientifically valid pinger experiment should be part of the management regime due to unresolved concerns about funding, target fishery, diversion of observers to the experiment, and concerns about statistical design for a fishery with limited bycatch.

Again, NMFS failed to publish the plan within 60 days (October 25, 1997) and it was not until more than one year after the MATRT submitted its plan that NMFS, on September 11, 1998, published a proposed rule that combined the Mid-Atlantic and the Gulf of Maine take reduction plans. Therefore, since NMFS failed to meet its statutory deadlines for implementation of the Mid-Atlantic take reduction plan and thus was in violation of the MMPA, Center for Marine Conservation, the Humane Society of the United States and the International Wildlife Coalition included the Mid-Atlantic take reduction plan in the lawsuit against NMFS (Daley). The settlement agreement, noted above, also required NMFS to include the MATRT's plan in the final rule, which was published on December 2, 1998.

Generally, the final rule for the Mid-Atlantic component of the harbor porpoise take reduction plan was consistent with that proposed by the team with a few exceptions. The gear

modifications remain the same as in the proposed plan, as does the effective period: January 1 through April 30 for New Jersey waters, and February 1 through April 30 for southern Mid-

Atlantic waters. Tables 1 and 2 summarize the final rule's gear modifications requirements for the large mesh (includes gillnet with mesh size of greater than 7 inches (17.78cm) to 18 inches (45.72cm)) and small mesh (includes gillnet with mesh size of greater than 5 inches (12.7 cm) to less than 7 inches (17.78cm)) gillnet fisheries in the Mid-Atlantic.

Table 1. Gear Modifications for the Large mesh Gillnet Fishery (Gillnet With Mesh Size Greater Than 7 Inches (17.78cm) to 18 Inches (45.72cm)).

Floatline Length:

New Jersey Mudhole Less than or equal to 3,900 ft (1188.7 m).

New Jersey Waters (excluding the Mudhole) Less than or equal to 4,800 ft (1463.0 m).

Southern Mid-Atlantic waters Less than or equal to 3,900 feet (1188.7 m).

Twine Size

All Mid-Atlantic Waters Greater than or equal to .90 mm (.035 inches).

Tie Downs

All Mid-Atlantic Waters Required.

Net Cap

All Mid-Atlantic Waters 80 nets.

Net Size A net must be no longer than 300 feet (91.4m) long.

Net Tagging Requires all nets to be tagged by January 01, 2000.

Time/Area Closures:

New Jersey waters to 72 deg.30' W. longitude (including the Mudhole). Closed from April 1-April 20.

New Jersey Mudhole Closed from February 15-March 15.

Southern Mid-Atlantic waters (MD, DE, VA, NC) to 72 deg.30' W longitude.

Closed from February 15-March 15.

Table 2. Gear Modifications for the Small Mesh Gillnet Fishery (Includes Gillnet with Mesh Size of Greater Than 5 Inches (12.7 cm) to Less Than 7 Inches (17.78cm))

Floatline Length:

New Jersey waters Less than or equal to 3,000 feet (914.4 m).

Southern Mid-Atlantic waters Less than or equal to 2,118 feet (645.6 m).

Twine Size:

All Mid-Atlantic waters Greater than or equal to .81 mm (.031 inches).

Net Cap:

All Mid-Atlantic waters 45 nets.

Net Size A net must be no longer than 300 feet (91.4m) long.

Net Tagging Requires all nets to be tagged by January 1, 2000.

Time/Area Closures:

New Jersey Mudhole. Closed from February 15-March 15.

The most significant change from the MATRT's plan is the application of modifications to all gillnet fisheries that use a mesh size of less than 7 inches (17.78 cm) but greater than 5 inches (12.7 cm) and the change in the stratification of gear modifications from fishery or subfishery to gear modifications based on mesh size. NMFS concluded that the regulatory measures should not be based on subfisheries but on the characteristics that appear most related to harbor porpoise bycatch. Moreover, NMFS claimed that basing the regulatory measures on the subfisheries would be difficult to administer and enforce, especially since no fishery management plan or permit system was in place under the Magnuson-Stevens Act for either fishery. While NMFS's argument for managing the fishery by mesh size rather than by subfishery is sound, it had the unintended consequences of including other fisheries that do not have a demonstrated take of harbor porpoise, such as the striped bass fishery. If NMFS had raised this concern within the negotiations, the MATRT could, no doubt, have proposed management measures that would have included gear types that have the potential to catch harbor porpoise rather than those that do not.

In terms of closures, the final take reduction plan differs from the MATRT's recommendations with regard to the timing of area closures. For the large mesh fishery (the monkfish fishery), the MATRT recommended a closure for New Jersey waters, including the Mudhole, from February 15 through March 15. Based on bycatch data, NMFS created two closures—one from February 15 through March 15 at the Mudhole and another from April 1 through April 20 for the rest of New Jersey.

The MATRT also recommended that the southern Mid-Atlantic be closed for a block of 20 days between February and April, the timing of the closure to be determined by the individual fishers. Again, because NMFS concluded that such a closure would be difficult to enforce, so NMFS mandated a set closure, consistent with the timing of high harbor porpoise bycatch, from February 15 through March 15 in the southern Mid-Atlantic.

For the dogfish fishery--small mesh fishery--the MATRT recommended no time and area closures; however, NMFS concerned about the high level of takes the area around the Mudhole in northern New Jersey during February through April mandated a one month closure from February 15 through March 15 in the Mudhole—to coincide with high fishing effort and the majority of the takes.

3. Evaluation of the MATRT Process and Plan.

In January 2000, the MATRT met to evaluate the take reduction plan. During the first eight months of 1999, 53 harbor porpoises were taken off the mid-Atlantic coastal states. As previously stated, NMFS has not completed analyses of the bycatch and effort data for 1999 to determine whether the takes exceeded PBR. NMFS's preliminary data indicate that the reductions are due to a combination of the plan and fishery management restrictions. In addition, the MATRT expressed concern about insufficient observer coverage to encompass all of the fisheries in this area, a lack of enforcement and compliance with the plan and the requirements of the MMPA (specifically those that require fishermen to register and take observers), and the continuing need for an improved estimate of effort.

While the plan itself has been fairly successful, MATRT member expressed frustration with NMFS's delay in the implementation of the plan and more importantly the changes that were made to the plan without consulting the MATRT. Many MATRT members felt that NMFS had severely undermined the integrity of the take reduction team process by modifying the plan to focus on gear and mesh size rather than fishery. In doing so, NMFS has included small mesh fisheries such as shad and striped bass and some internal waters such as the Delaware Bay that the MATRT had not envisioned including during their negotiations or in their recommendations. Many of the members believed that these problems could be averted if NMFS had consulted with and discussed these changes with the MATRT during the comment period on the proposed rule or if NMFS had raised these issues during the negotiations.

Finally, while many members were both disenchanted with the process and disheartened by the MATRT's failure to achieve consensus on all aspects of the take reduction plan (pinger experiment), the team was able to recommend, at their January meeting, that the fishing industry pursue mitigation strategies for harbor porpoise and bottlenose dolphins, including acoustic deterrent devices and reflective gillnets, and NMFS provide technical advice for such efforts. The MATRT recommended that NMFS work cooperatively with industry to pursue funding. Given this outcome, if there had been more time, the MATRT may have reached consensus on this issue. Because they did not, individuals, on both sides, questioned the other's motives and in one unfortunate instance this led to the industry attacking the motives of one of the scientists. It is regrettable that in those cases where consensus is not achieved, there appears to be a tendency for one group to lash out at another.

C. **Atlantic Offshore Cetacean Take Reduction Team 1. Background on Marine Mammal Takes in the Atlantic Offshore Fisheries**

The U.S. Atlantic, Caribbean, Gulf of Mexico pelagic drift gillnet fishery for swordfish, tuna, and shark interacts with six to nine strategic **marine** mammal stocks, including long-finned and short-finned pilot whales, common dolphins, Atlantic spotted dolphins, the offshore stock of

bottlenose dolphin, humpback whales, northern right whales, and sperm whales. The U.S. Atlantic, Caribbean, Gulf of Mexico pelagic longline fishery for swordfish, tuna, and shark interacts with two strategic **marine** mammal stocks: Pilot whales and Atlantic spotted dolphins. Table 1 summarizes the level of take for these strategic stocks.

Table 1. 1995/19966 Marine Mammal Stock Assessment—Strategic Stocks with Fishery Interactions.

SPECIES/STOCK	PBR	ANN. FISHERY MORTALITY	FISHERY SOURCES OF MORTALITY
Northern Right Whale/ W. North Atlantic	0.4	1.1	Lobster, Gillnet, and Driftnet Gear
Common dolphin/W. North Atlantic	32	449	Atlantic Drift Gillnet Fishery
Atlantic spotted dolphin/ W. North Atlantic	16	31	Atlantic Drift Gillnet Fishery/Atlantic pelagic longline fishery
Pantropical spotted dolphin/ W. North Atlantic	16	31	Atlantic Drift Gillnet Fishery
Cuvier's beaked whale/ W. North Atlantic	8.9	34	Atlantic Drift Gillnet Fishery
Mesoplodont beaked whale/ W. North Atlantic	8.9	34	Atlantic Drift Gillnet Fishery
Pilot whale, short-finned/ W. North Atlantic	3.7	109	Atlantic Drift Gillnet Fishery; Atlantic pelagic longline fishery
Bottlenose dolphin/ W. North Atlantic, offshore	92	128	Atlantic Drift Gillnet Fishery; Pair trawl fishery
Atl. White-sided dolphin/ W. North Atlantic	125	127	Atlantic Drift Gillnet Fishery
Pilot whale, long-finned/ W. North Atlantic	28	109	Atlantic Drift Gillnet Fishery, Atlantic pelagic longline fishery
Sperm whale/ W. North Atlantic	0.5	1.6	Atlantic Drift Gillnet Fishery

2. Atlantic Offshore Cetacean Take Reduction Team

NMFS established the Atlantic Offshore Cetacean Take Reduction Team (AOCTRT) on May 23, 1996 to prepare a take reduction plan aimed at reducing bycatch of the strategic **marine mammals--**right whales, humpback whales, sperm whales, beaked whales, pilot whales, common dolphins, bottlenose dolphins, and spotted dolphins in the U.S. Atlantic pelagic drift gillnet, longline and pair trawl fisheries The AOCTRT reached consensus on several strategies to reduce takes in each fishery and submitted a draft Atlantic Offshore Cetacean Take Reduction Plan to NMFS on November 25, 1996. For each fishery, the AOCTRT recommended that education and outreach materials be prepared and workshops be held. The AOCTRT also recommended that NMFS develop criteria for assessing

marine mammal injuries and that a workshop should be convened to review all existing injury information and develop (1) guidelines for determining and recording serious injury; (2) recommendations for changes and/or additions to observer logs or reporting forms; (3) recommendations for further research including how to monitor fate of entangled animals; and (4) recommendations to the fleet on operating procedures when interactions occur to minimize injury and maximize survivorship. In addition, the AOCTRT also recommended that a technical advisory group be formed to assist in the implementation of the plan and that research on cetacean behavior and abundance be made a priority. In both the drift gillnet and longline fisheries the plan prohibited **fishing** in right whale critical habitat areas to reduce the risk of entanglement of right whale.

In the drift gillnet fishery the strategies were as follows: (1) 100 percent **marine** mammal observer coverage; (2) limited entry for the swordfish drift gillnet fishery; (3) prohibition of drift gillnet gear south of Hudson Canyon from December 1 through May 31; (4) a set allocation system designed to reduce the derby nature of the fishery; (5) pinger experiment during the 1997 fishing season requiring 100% participation by all vessels; (6) real time monitoring and evaluation of bycatch; (7) information clearinghouse to share information among fishermen regarding marine mammal "hot spots" or areas with high concentrations of marine mammals; (8) research on standardized gear modifications; (9) a buy-out program to reduce effort in the fishery by allowing fishermen to sell their allocation of sets to other driftnetters or non-fishers.

In the longline fishery, the strategies would be as follows: (1) length-of-gear limit on pelagic longline gear to 24 nautical miles from August to November in the Mid-Atlantic Bight; (2) reduction in maximum soak time in the Mid-Atlantic Bight during August-November by hauling gear in the order it was set; (3) a requirement that longliners move after one entanglement with a **marine** mammal; (4) research on modification of gear and/or operating practices, cetacean behavior, and acoustical systems to devise ways to reduce entanglement; (5) increase observer coverage in the longline fishery to 10% in the Mid-Atlantic and Northeast Coastal areas from August through November, and at least 5% in the rest of the fishery; (6) develop a stratified random sampling scheme for the longline fishery to increase precision of bycatch estimates and insure optimal allocation of observer coverage.

The pair trawl fishery recommended a strategy that included the following: (1) operator qualifications and certification; (2) certification of nets; (3) research on cetacean behavior and target species; and (4) industry performance standards and review. In September 1996, prior to the completion and submission of the plan, NMFS denied the pair trawl fishery's petition for rulemaking to authorize the fishery in the Atlantic tuna fishery. However, the pair trawl gear is not currently authorized for fishing in the Atlantic tuna or swordfish fishery; therefore, the team's recommendations regarding pair trawl gear are not being implemented.

3. Evaluation of the AOCTRT.

The AOCTRT submitted to NMFS the Atlantic Offshore Cetacean Take Reduction Plan on November 25, 1996. According to the MMPA, NMFS should have published a proposed rule and implementing regulations by January 25, 1997. On June 5, 1997, NMFS's failure to meet this deadline resulted in the extension of the December 1, 1996 through May 29, 1997, emergency closure of the northern portion of the Atlantic driftnet fishery for swordfish under an emergency rule issued under section 305 (c) of the Magnuson-Stevens Fishery Conservation and Management Act until November 26,1997. In November of 1997, NMFS published a draft Environmental Assessment for the Atlantic Offshore Cetacean Take Reduction Plan. This Environmental Assessment called into question whether

the AOCTRT's consensus plan would provide sufficient protection for right whales or other cetaceans. In accordance with the MMPA, NMFS proposed another alternative that had been discussed during the course of the take reduction team's negotiation as a possible modification to the plan to achieve the goals of the MMPA and the ESA. CMC provided comments that supported the NMFS alternative. However, if NMFS had these concerns, it should have voiced them and proposed the alternative take reduction strategy during the negotiations for consideration by the AOCTRT. NMFS did neither, and instead undermined the entire take reduction process while at the same time its delays allowed the fishery to operate and kill hundreds of marine mammals without the benefit of a take reduction plan.

Finally, after conducting a comprehensive review of the swordfish fishery, NMFS published a final rule prohibiting the use of driftnet gear in the North Atlantic swordfish fishery. Moreover, as of 1999, many of the recommended measures for reducing takes in the longline fishery are being implemented as part of the Highly Migratory Species Fishery Management Plan under the Office of Sustainable Fisheries rather than under the MMPA and the Office of Protected Resource. This violates the intent of the MMPA and has resulted in a further failure on the part of NMFS, who, to date, has not proposed take reduction plan for the non-regulatory aspects of the plan, as they pertain to the longline fishery nor has NMFS convened the AOCTRT since it submitted its take reduction plan.

The AOCTRT, even though it reached consensus, was a failure, solely because NMFS severely undermined the good faith efforts of the AOCTRT at every turn by: (1) closing the pair trawl fishery during the course of the negotiations; (2) failing raise concerns about the ability of the consensus plan to achieve PBR within the negotiation process rather than after the process was completed; (3) raising the issue of the need to address rare instances of incidental takes of endangered whales late in the process, when there was insufficient time to address the issue; (4) failing to implement a take reduction plan within the MMPA's timeframes and violating the MMPA by allowing continued takes of marine mammals; (5) ignoring the recommendations of the plan and using the MMPA to close the drift gillnet fishery rather than the provisions of the Magnuson-Stevens Act; and (6) failing to implement fully the take reduction plan or reconvene the AOCTRT in accordance with the MMPA. With two fisheries having been closed, the fate of the AOCTRT is uncertain, equally uncertain is whether the plan has achieved the goal of reducing takes to PBR. By closing these fisheries, the Office of Sustainable Fisheries, demolished the very foundation of the take reduction team negotiations process. Their actions gave the appearance that there was no interest or intent in effectively implementing these provisions of the MMPA, instead they merely used it as a tool to arbitrarily close fisheries—the very action that this process is designed to avoid. If the AOCTRT has any hope of being revived implementation authority must be restored under the MMPA and the Office of Protected Resources.

A. **Atlantic Large Whale Take Reduction Team**

1. **Background on Large Whale Takes in the Atlantic.** Based on data from 1991 through 1995, U.S. **fishing** gear was likely responsible for approximately 35 percent (6 events) of known human-caused serious injury and mortality to right whales, while Canadian fisheries are estimated to be responsible for 18 percent (3 events); the remaining 47 percent (8 events) is attributed to ship strikes. NMFS estimates that a minimum of 1.2 right whales from the western North Atlantic stock are seriously injured or killed annually by entanglement in U.S. **fishing** gear. For the most part, NMFS considers this a minimum estimate because many entanglements go unobserved--occurring in areas where

there is little sighting effort. NMFS's PBR for this stock is 0.4 right whales—the target for any take reduction plan. Therefore, if more than two serious injuries or mortalities **incidental** to **commercial fishing operations** occur within 5 years after the **plan** is promulgated, then the plan will not achieve its PBR goal.

In the 1996 Stock Assessment Reports, NMFS estimates that rate of serious injury and mortality of humpback whales due to fishery interactions is 4.1 animals per year and is therefore, below the stock's PBR level of 9.7. The 1996 Stock Assessement Reports indicate that over the 1991-1995 period, the total known fishery-related mortality and serious injury rate for fin whales is less than 3.4 fin whales per year—well under the PBR of 34 fin whales. Likewise, in the 1996 NMFS stock assessment report NMFS estimates that 2.5 minke whales are seriously injured or die from fishery-related encounters. This level does not exceed the PBR level of 21 for this stock. Nevertheless, because of the endangered status of humpback and fin whales, and therefore their strategic stock designation, NMFS included these species under the Atlantic Large Whale Take Reduction Team.

2. The Atlantic Large Whale Take Reduction Team.

NMFS established the Atlantic Large Whale **Take Reduction** Team (ALWTRT) on August 6, 1996 to prepare a draft Atlantic Large Whale **Take Reduction Plan** to reduce takes of humpback, fin and right whales, which are listed as endangered species under the ESA (and are thus considered strategic stocks under the MMPA) in the South Atlantic shark gillnet fishery, the Gulf of Maine and Mid-Atlantic lobster trap/pot fishery, the Mid-Atlantic gillnet fishery, and the Gulf of Maine sink gillnet fishery. Although minke whales are not listed as strategic at this time, the ALWTRT was also asked to consider measures that would reduce takes of minke whales.

The ALWTRT included representatives of NMFS, the **Marine** Mammal Commission, Maine Department of **Marine** Resources, Massachusetts Division of **Marine** Fisheries, Rhode Island Division of Fish and Wildlife, Maryland Department of Natural Resources, Virginia **Marine** Resources Commission, North Carolina Division of **Marine** Fisheries, Georgia Department of Natural Resources, Florida Department of Environmental Protection, New England Fishery

Management Council, Mid-Atlantic Fishery Management Council, environmental organizations, academic and scientific institutions, and participants in the fisheries considered in this **plan**. The ALWTRT met six times between September 1996 and January 1997 and submitted a report to NMFS on February 4, 1997; however, the team did not reach consensus on all aspects of the plan.

2.1 The Report of the ALWTRT

The ALWTRT's report submitted includes: (1) A review of the status of the affected strategic **marine** mammal stocks; (2) descriptions of the New England multispecies sink gillnet fishery, the mid-Atlantic coastal gillnet fisheries, the Gulf of Maine and U.S. mid-Atlantic lobster trap/pot fisheries, and the Southeastern U.S. Atlantic drift gillnet fishery for sharks; (3) recommendations on potential measures to reduce the bycatch of large whales; and (4) other recommendations regarding research needs. The ALWTRT's take reduction strategies included: modifications to **fishing** gear and practices, area restrictions**, reduction** of inactive **fishing** gear and retrieval of lost or discarded gear as **marine** debris, a gear marking system that could assist in the identification of where and from what fisheries whales may be encountering

gear, aggressive research into gear modifications and design, and improved disentanglement efforts. Finally, the ALWTRT recommended initiatives for fisher education and outreach, better monitoring of the distribution of whale stocks and entanglements, joint initiatives with Canada to reduce whale bycatch in **commercial** fisheries, and exploration of market incentives to reduce large whale bycatch in these fisheries.

While the ALWTRT agreed on many strategies, the team could not reach consensus on two areas. The first was the need to close critical habitat areas where low to moderate fishing effort was occurring, but where there were also few sightings of right whales. The second was where and what type of gear modification requirements should be required. Specifically, the consensus broke down over whether to require the use of sinking groundlines in rocky bottom habitat.

1. NMFS Proposed Rule for the Take Reduction Plan

NMFS published the proposed rule to implement an Atlantic Large Whale Take Reduction Plan on April 7, 1997 (sixty days after the plan was submitted). The plan included seasonal fishery closures in times and areas where right whales are known to occur, and lists of gear modifications for gillnet and lobster gear (e.g. weak links, reducing the breaking strength of buoy and ground lines, greater use of sinking line, and anchoring requirements). The plan also included a gear marking system to help determine the source of lines found on entangled whales; formation of a gear advisory group to aid in the identification and evaluation of various research proposals; and expanded support for disentanglement teams.

In the proposed rule, NMFS greatly expanded the gear modification requirements to include area, such as Maine state waters, were few right whale sightings had been reported. This action elicited strong opposition from thousands of New England fishermen who cited concerns about the costs of modifying their gear to fish in areas where right whales were rarely seen. All interest groups raised concerns over some of NMFS proposed gear modifications—such as 150 pound weak links—citing that, given the untested nature of many of these modifications, requiring such alterations without knowing whether they will achieve the require reduction may be premature.

The issue quickly became both highly polarized and politicized. NMFS received over 13,000 comments (including form letters, postcards and signatures on petitions) from state and Federal agencies, Congressional offices, State legislature representatives, towns, conservation groups, industry associations, businesses, fishermen and other private individuals. In addition, NMFS received oral testimony at twelve public hearings held from Maine through Virginia and attended by more than 2,500 people.

2.3 NMFS Interim Final Rule on the Take Reduction Plan

On July 22, 1997, NMFS published the interim final rule to implement the Atlantic Large Whale Take Reduction Plan. NMFS substantially revised the interim final rule from the proposed rule. In the interim rule, NMFS required all lobster and sink gillnet gear be rigged so that the buoy line does not float at the surface of the water at anytime. The interim rule also prohibits "wet storage" of lobster gear--the practice of leaving unbaited traps in the water rather than storing them on land.

NMFS revised the proposed gear modification requirements to reduce the area in which the rules applied (removing the requirement that gear deployed in coves and harbors be modified) and create, instead, a menu option that required gear from various area be modified to include some characteristic(s) that would reduce

the risks associated with entanglement. For example, at least one modification from a list of acceptable options must be used if the gear is set in areas whales rarely use, and at least two of the modifications are required if the gear is set in areas whales use more frequently. Additionally, there were more specific requirements for gear allowed in areas that have previously been declared "critical habitat" for right whales with critical habitat areas off Massachusetts and Georgia/Florida being closed to some gear during times when whales are known to aggregate.

2.4 Problems with the Interim Final Rule

The problem was that NMFS crafted these menu options in such a way that the existing gear required little or no modification. Therefore, in the opinion of the environmental community the Interim Final Rule for the Atlantic Large Whale Take Reduction Plan significantly weakened the proposed rule by creating a greater reliance on a gear technology list to implement the plan which, in most cases, provided no meaningful risk reduction and was not a departure from the current fishing practices that have entangled whales. In the summaries provided in Table 1 and 2, it is clear that the Interim Final Rule proposed, for both lobster and gillnet gear, requiring only two gear options for areas such as Cape Cod Bay, Great South Channel, and Stellwagen Bank/Jeffreys Ledge, made this proposal far less restrictive than the strategies recommended by either the Commonwealth of Massachusetts Endangered Whale Working Group (CMEWWG) in its Conservation Plan for Massachusetts Waters to Minimize Entanglement Risk for Right Whales for Cape Cod Bay, the ALWTRT's report, or the Fishing Industry in its Industry-State Agency Large Whale Take Reduction Plan (See tables 1 and 2). Most of these plans proposed using four or more gear technology restrictions; smaller diameter line 5/16; and reduced breaking strength (< 1,100 lb.)

In addition, NMFS significantly weakened the take reduction strategies for the Mid-Atlantic anchored gillnet fisheries, proposing a take reduction strategy that now only requires one gear modification. This is a withdrawal from the consensus strategy proposed by the ALWTRT in its Report.

However, NMFS's proposed actions represented no real risk reduction while at the same time removing other requirements that would provide important data and information. For example, NMFS proposal for prohibiting floating line at the surface didn't result in any meaningful risk reduction as current practice results in line that does not usually float at the surface. The same was true with the prohibition on "wet storage", because, as written, fishermen could stow gear in the water so long as he/she "hauled it out of the water at least once in 30 days"--thereby meeting the requirement of the law while all the time the gear presents a potential risk of entanglement to whales. On the other hand, NMFS removed the requirement to mark gear by region color code, thereby decreasing the utility of the data derived from gear marking to aid in determining the area and fishery where whales may be encountering gear. Finally, NMFS removed from the Interim Final Rule all contingency measures to extend gear requirements or to close a restricted area in the event of anomalous right whale distribution. NMFS did not replace these contingency measures with any early warning mechanism to notify fishermen that right whales are in the area.

Table 1. A summary of the various proposed take reduction strategies for Cape Cod Bay Critical Habitat and the areas adjacent or west of Cape Cod Bay critical habitat.

INDUSTRY PROPOSAL	TAKE REDUCTION PLAN	PROPOSED RULE	INTERIM FINAL RULE
Lobster Gear	**Lobster Gear**	**Lobster Gear**:	**Lobster Gear**

Other Restrict Period: May 16 - December 31	Other Restrict Period: May 16 - December 31	Other Restrict Period: May 16 - December 31	Other Restrict Period: May 16 - December 31 ***At least TWO characteristics from the Gear Technology List must be used.***
		Limit on buoy lines--no more than one buoy line is used per trawl consisting of fewer than four pots and no more than two buoy lines used per trawl consisting of four or more pots.	All buoy lines are 7/16 inches in diameter or less.
Sinking buoy lines--all buoy lines are sinking except for the bottom 1/3.	Sinking buoy lines--all buoy lines are sinking	Sinking or modified sinking buoy lines	Sinking buoy lines—all buoy lines are composed entirely of sinking line.
Weak link or break-away at or just below the buoy in all lines	Weak link or break-away at or just below the buoy in all lines (Recommended breaking strength--150 lbs)	Breakaway buoys or weak buoy lines (Breaking strength 150 lb)	All buoy are attached to the buoy line with a weak link having a max. breaking strength of up to 1,100 lbs. Weak links may include swivel, plastic weak links, rope of appropriate breaking stength, hog rings, or rope stapled to a buoy stick.
Sinking groundlines--All groundlines are sinking line.	Sinking groundlines--All groundlines are sinking line.	Sinking groundlines—All groundlines are sinking line.	Sinking groundlines--All groundlines are made of sinking line.

Table 2. A summary of the various proposed take reduction strategies for Great South Channel Critical Habitat other restricted period.

INDUSTRY PROPOSAL	**TAKE REDUCTION PLAN**	**PROPOSED RULE**	**INTERIM FINAL RULE**
Lobster Gear Other Restrict Period: July 1 - March 31	**Lobster Gear** Other Restrict Period: July 1 - March 31 **NO PROPOSALS**	**Lobster Gear**: Other Restrict Period: July 1 - March 31	**Lobster Gear** Other Restrict Period: July 1 - March 31 ***At least TWO characteristics from the Gear Technology List must be used***.
		Limit on buoy lines—no more than one buoy line is used per trawl consisting of fewer than four pots and no more than two buoy lines used per trawl consisting of four or more pots.	All buoy lines are 7/16 inches in diameter or less.
Sinking buoy lines except for the last 10 fathoms which may be up to ½ inch floating rope spliced in		Sinking or modified sinking buoy lines	Sinking buoy lines--all buoy lines are composed entirely of sinking line.

to prevent formation of a knot.			
Weak link at or just below the buoy in all buoy lines.		Breakaway buoys or weak buoy lines (Breaking strength 150 lb	All buoy are attached to the buoy line with a weak link having a max. breaking strength of up to 1,100 lbs. Weak links may include swivel, plastic weak links, rope of appropriate breaking strength, hog rings, or rope stapled to a buoy stick.
		Sinking groundlines—All groundlines are sinking line.	Sinking groundlines--All groundlines are made of sinking line.

The conservationists concerns about the plan were well founded. During 1998, under the interim final rules two right whales were entangled, one was seen entangled in unidentified gear in the Bay of Fundy and another entangled twice in lobster gear in Cape Cod Bay. The latter was disentangled on both occasions.

2.5 Modifications to the Interim Final Rule and the Final Rule

On February 7 and 8, 1999 NMFS reconvened the ALWTRT. Despite the team's failure to reach consensus on a plan, disillusionment with the process, and the divisive dialog, which had surrounded both the proposed and interim rule, the ALWTRT was, nevertheless, able to formulate several consensus recommendations. First the team expressed concern about NMFS's proposal to remove the anchoring provisions in the list of gear alternatives. The ALWTRT members recognized that for a weak link to properly function in a gillnet, the gillnet had to be anchored in such a way as to create the tension necessary to allow the weak link to break. Also the ALWTRT recommended that NMFS revisit the gear marking requirements and whether a whale can break 7/16ths line easily.

NMFS published the final rule on February 16, 1999, with an April 1, 1999, effective date. On April 9, 1999 NMFS published a final rule with a partial stay concerning the final rule's gear marking regulations until November 1, 1999, or until a better system is designed. The other recommendations from the ALWTRT's February 1999 meeting were largely ignored.

In 1999, three whales were observed entangled in the Great South Channel in spring, and one, right whale entangled in gillnet gear, died. Clearly, this information indicates that the take reduction plan is not meeting its goal of reducing entanglement, serious injury, or mortality of right whales. Therefore, in February the ALWTRT met to revise the plan. The team has tentatively agreed to additional gear modifications and has done away with the menu options, requiring, instead, several modifications for fisheries both in an adjacent to critical habitat.

1. Right Whale Litigation

Under *Strahan* v. *Linnon* the plaintiff alleged in an amended brief filed in June 1996 that the NMFS had failed to establish take reduction teams or implement take reduction plans for right whales and other whale species within the mandated timeframes and that NMFS had improperly refrained from classifying the New England lobster fishery under category I on its list of fisheries. On August 30, 1996 the plaintiff filed a motion for a preliminary injunction based on its claim that the government had failed to develop a large whale take reduction plan. NMFS indicated that would issue a draft plan by April 1,1997 and a final plan by July 15, 1997; consequently, with those assurances, the court denied the motion for an injunction.

In another lawsuit, *Strahan* v. *Coxe*, the plaintiff contented that Massachusetts's licensing of gillnet and lobster fishing in state waters was a violation of the Endangered Species Act and the MMPA, and that allowing the use of such gear in critical habitat is an impermissible modification of that habitat. The court granted the plaintiff partial relief and the court instructed the state to (1) apply for incidental take permits under the MMPA and the ESA; (2) develop and submit a proposal to restrict, modify, or eliminate the use of fixed fishing gear in coastal waters of Massachusetts listed as right whale critical habitat; and (3) convene a working group on endangered whales to discuss modifications to fishing gear. The team was convened and a plan was developed in response to the court order, many of the provisions of that plan were included in the final take reduction plan.

1. Evaluation of the ALWTRT.

It was indeed unfortunate that the ALWTRT failed to reach consensus, again, perhaps if more time were available for additional negotiations and the ALWTRT did not have the added pressure of both state and federal lawsuits, consensus may have been reached. While the ALWTRT failed to build consensus, NMFS equally failed to take advantage of the ALWTRT's substantive and political progress and the level of agreement that it did achieve on many issues—including some take reduction strategies. Instead, NMFS proposed an initial regulation that was, in some areas such as Maine state waters, too restrictive and an interim version that lacked sufficient conservation and risk reduction. With the pendulum swinging from one extreme to the other, NMFS failed to achieve any real conservation for right whales or other whale species in the Atlantic.

The CMC and most of the fishing industry recommended repeatedly to NMFS to focus its limited enforcement resources and mitigation strategies on those areas where there is the greatest potential for interaction with whales in areas such as outside the already designated right whale critical habitat areas these areas are Stellwagen Bank and Jeffreys Ledge—not Maine state waters! Areas such as Jeffreys Ledge and Stellwagen Bank should be considered high-risk areas and should receive the majority of gear modification requirements. Two years later this is exactly the recommendations the ALWTRT is proposing. Moreover, the many members of the ALWTRT agree, that if data demonstrates that large whales are becoming entangled and/or further action is need to meet the goals of the MMPA, tested and refined gear modifications could be used in other areas of the Gulf of Maine (e.g. Maine state waters). But now the greatest need is to aggressively research and field test gear modifications that will eliminate the risk of entanglement for whales.

It is extremely unfortunate that NMFS failed to consider the progress made in the take reduction team process. If it had, it would have been clear that there was a significant amount of common ground between environmentalists and fishermen. This could have allowed NMFS to avert the political interventions, the volatile discourse, and the explosive reactions from all members of the ALWTRT and public. Rather, NMFS's proposal only fueled the breakdown in communication within that ALWTRT that was the result of the team's failure to reach consensus. Again in this situation, the motive of team members became suspect, other members and the press generated rumors and half-truths that mischaracterized the position of various organizations and individuals. NMFS did a disservice to both the conservation community and fishing industry. It ignored proposals developed over six months of negotiations and it ignore the ALWTRT's 1999 recommendations. It erased the goodwill developed between the environmental community, fishing industry, and the federal and state governments. In its interim rule, it merely postponed needed gear regulations on Stellwagen and Jeffreys Ledge, waiting until 1998 and 1999 when whales became entangled, injured, and killed. Nevertheless, there is hope in the fact that despite NMFS actions, the ALWTRT is still functioning and attempting to devise consensus recommendations.

E. Pacific Offshore Cetacean Take Reduction Team

1. Background of Marine Mammal Takes in the Pacific Fisheries

The California/Oregon drift gillnet fishery has a historical **incidental** bycatch of several strategic **marine** mammal stocks including: several beaked whale species, short-finned pilot whales, pygmy sperm whales, sperm whales, and humpback whales. The California/Oregon drift gillnet (CA/OR DGN) fishery for thresher shark and swordfish is classified as a Category I fishery under section 118 of the MMPA and the fishery is a pelagic fishery with the majority of the **fishing** effort occurring within 200 miles (320 kilometers) **offshore** of California and Oregon.

Table 1. 1995 Marine Mammal Stock Assessment—Strategic Stocks with Fishery Interactions.

SPECIES/STOCK	PBR	ANN. FISHERY MORTALITY	FISHERY SOURCES OF MORTALITY
Humpback Whale/ California-Mexico	0.5	>0.5	CA/OR Drift gillnet Fishery
Sperm Whale/ CA to WA	1.0	17	CA/OR Drift gillnet Fishery
Baird's Beaked Whale/CA, OR, WA	0.2	>0.15	CA/OR Drift gillnet Fishery
Pygmy sperm whale/CA, OR, WA	4.8	5.7	CA/OR Drift gillnet Fishery
Cuvier's beaked whale/ CA, OR, WA	8.9	24	CA/OR Drift gillnet Fishery
Mesoplodont beaked whale/ CA, OR, WA	1.4	7.7	CA/OR Drift gillnet Fishery
Minke whale/ CA/WA/OR	2.6	0.5	CA/OR Drift gillnet Fishery

2. Pacific Offshore Cetacean Take Reduction Team

NMFS established the Pacific Offshore Cetacean Take Reduction Team (POCTRT) on February 15, 1996 to prepare a draft **take reduction plan**. The POCTRT included representatives of NMFS, the California Department of Fish and Game (CDFG), the **Pacific** States **Marine** Fisheries Commission, environmental organizations, academic and scientific organizations, and participants in the CA/OR DGN fishery. In selecting these team members, NMFS sought an equitable balance among representatives of resource user and non-user interests.

The POCTRT was tasked with developing a consensus **plan** for reducing **incidental** mortality and serious injury of strategic **marine** mammal stocks of beaked whales, pilot whales, pygmy sperm whales, sperm whales, and humpback whales in the CA/OR DGN fishery. The POCTRT met five times between February and June 1996 and submitted a consensus draft **plan** to NMFS on August 15, 1996.

The take reduction plan relies on four primary strategies with a strong contingency section in the event these strategies fail to succeed. The POCTRT proposed **regulations** to implement three of these primary strategies, these include: the establishment of a depth of **fishing** requirement; the use of acoustic deterrent devices (pingers); and mandatory skipper workshops. The POCTRT recommended that one other primary

strategy be implemented by NMFS, yet not through Federal regulation. This would be for NMFS to encourage California Department Fish and Game (CDFG) not to reissue lapsed permits, and to encourage the Oregon Department of Fish and Wildlife (ODFW) to continue issuing the same number of permits.

The POCTRT recommended that NMFS establish a fleet-wide 16 fathom (36 feet; 10.9 meters) minimum extender line length requirement. Extender lines attach buoys (floats) to the drift gillnet's floatline and determine the depth in the water column at which the net is fished.

Based on the analysis of NMFS' observer data for the CA/OR DGN fishery from 1990-95 the POCTRT noted that the majority of the cetaceans incidentally taken were observed entangled in the upper third of the net and a significantly greater number of cetaceans are caught during sets that use extenders that are less than 6 fathoms (10.9 meters) deep; therefore, lowering nets in the water column will likely significantly reduced the **incidental** bycatch of cetaceans.

The POCTRT recommended that NMFS conduct mandatory skipper workshops on the components of the take reduction plan, together with expert skipper panels, to further generate and consider potential, additional **take reduction** strategies. Workshops would provide drift gillnet skippers with information relevant to how the **take reduction plan** was developed, the components of the plan, **plan** implementation, species identification information, and how to avoid **marine** mammal entanglement. All CA/OR DGN vessel operators would have to attend one Skipper Education Workshop before **fishing** in the 1997/98 **fishing** season (May 1 to December 31). Finally, the workshops would solicit feedback from fishers on how to reduce **marine** mammal interactions.

The POCTRT recommended that NMFS and the CA/OR DGN fishery initiate an acoustic deterrent device (pinger) experiment in the fishery during the 1996-97 **fishing** season to evaluate the effectiveness of pingers at reducing **incidental cetacean** and strategic stock bycatch. If experimental results indicate a reduction in cetacean bycatch, then the POCTRT recommended that NMFS require mandatory fleetwide pinger use for all CA/OR DGN fishery vessels prior to the next **fishing** season (1997-98). NMFS and the CA/OR DGN fishery initiated a pinger experiment in the CA/OR DGN fishery in August 1996. The CA/OR DGN fishery pinger experiment used pingers with the same sound frequency, level, and pulse duration and rate as those used in the New England sink gillnet fishery. The results indicated that observed **cetacean** entanglement rate was almost 4 times greater for non-pinger sets than for those sets that used pingers.

Finally, the take reduction plan also included: (1) A review of the current information on the status of the affected strategic **marine** mammal stocks; (2) a description of the CA/OR DGN fishery; (3) an analysis of data from NMFS's CA/OR DGN fishery observer program from

1990-1995; (4) primary strategies to reduce takes of strategic **marine** mammal stocks; (5) contingency measures that would reduce **fishing** effort; and (6) other recommendations regarding voluntary measures to reduce takes, enhancing the effectiveness of the observer program, research on oceanographic/environmental variables, and other potential strategies considered and rejected by the team. The plan also contained language on contingency measures if takes continue to exceed PBR levels which states "(if)...the TRP objectives have not been met, the TRT will evaluate and recommend methods to reduce fishing effort in the upcoming season..."

3. Evaluation of the POCTRT Process and Plan.

The POCTRT submitted its plan on August 15, 1996, and NMFS published the proposed rule to implement the plan on February 14, 1997—six months after the team's submission. On October 3, 1997, NMFS published the final rule, effective October 30, 1997, which implemented the team's plan, requiring that the top of the nets be set at a minimum depth of 36 feet below the water surface, that pingers be used on all nets, that the states of California and Oregon reduce the number of "inactive" permittees, and that vessel operators be required to attend educational workshops to educate them about marine mammals and the take reduction plan.

On June 1-2, 1998, the POCTRT reviewed the data regarding marine mammal takes in the 1997/1998 fishing season and determined that the fishery had achieved its 6-month goal of reducing takes to below PBR—having reduced marine mammal incidental mortality by 65%. At the POCTRT's recommendation, NMFS published an interim final rule on January 22, 1999 modifying specifications for deploying pingers that allow for safer deployment (i.e. longer attachment lanyards.) In 1999, the POCTRT met and again found that the marine mammal mortality had declined in the 1998/1999 fishing season, although one sperm whale was reported killed. This mortality occurred in a set in which the required number of pingers had not been deployed; consequently, the POCTRT view this as an compliance and enforcement issue and did not recommend further modifications to the plan.

The POCTRT functioned smoothly, the plan was nearly implemented within the timeframe required by the MMPA, and this is the only team that has achieved its goal of reaching PBR. The reasons for this success are: implementation of the plan was a priority for both regional and headquarter staff; the plan was implemented under the authority of the MMPA and required no further action by a fishery management council or plan; the plan was strongly support by excellent scientific modeling and analyses; the fishery was not overly burden by other fishery management closures and restrictions; the team was small and all members of the POCTRT seems open and willing to accept the science and work together toward consensus; and NMFS science staff quickly conducted the necessary experiments to support the research needs of the plan. This mix of commitment to the process and its implementation at all levels and the willingness to accept the data and actively engage in the process is the keystone to success in the take reduction team process.

IV. CONCLUSIONS AND ANALYSIS OF THE TAKE REDUCTION TEAM PROCESS.

A. Survey of the Take Reduction Team Process

In the Fall of 1998, RESOLVE, a dispute resolution firm contracted by NMFS to conduct the facilitation for the take reduction teams, undertook a survey of take reduction team members, soliciting feedback on the negotiation phase of the take reduction team process. The goal of the survey was to evaluate the process for each of the five take reduction teams, to provide team members with an opportunity to express their interests and concerns about the TRT negotiation process, and to assist NMFS in improving its future multiparty negotiation processes.

In summary, the results of the survey indicated that:

- Most respondents felt the process is effective in resource management decision-making. (86% of respondents.)
- Most respondents felt that the negotiation process was fair. (78%)

- Most respondents felt that there was adequate time for the overall negotiations. (60%)
- However, many participants were not satisfied with the results or the outcome of the negotiation. (60%)
- Most respondents also felt that there was insufficient data to support the negotiation. (68%)

We will examine several of this issues in greater detail below.

B. The Role of the Facilitator

Through the take reduction teams we learned more about the status of marine mammals and their interactions with commercial fisheries and the ecosystem. We have also refined a process by which resource managers, users of the marine environment, and the public can develop relationships that lead to better public policy. One of the reasons that most respondents felt that the process was fair is likely due to the work of the facilitator.

During the take reduction teams, the facilitator was key in helping identify participants, working to achieve a balance of interest groups, formulating a team, ensuring adherence to ground rules, setting dates, and places for meetings, keeping the group on schedule, providing a means to keep discussions flowing and open to all participants, collecting notes and materials, and circulating drafts of various elements of emerging proposals. The facilitators were essential in helping players get past conflicts and move through posturing to substance. As talks progress to increasingly difficult issues, the facilitator helped identify obstacles and assisted the group in reaching critical breakthroughs. CMC recommends that NMFS continue to use facilitators in the take reduction team process.

A. Commitment of Participants

The composition of the team and the authority of the NMFS staff person at the take reduction team negotiations are critical. The success of negotiations, particularly those requiring consensus, rely heavily on the good faith of the participants to actively negotiate and not arbitrarily attempt to block consensus or the progress of the group. Therefore, it is critical to select participants who will negotiate in good faith and who are prepared to fully support the negotiation, consensus process, commit their organization, and implement its outcome. Facilitators have noted that participants will only engage in multi-party negotiations if they believe they will do better by building consensus than by lobbying their specific interests directly with the agency or Congress, or initiating lawsuits. For the most part, in all five of the take reduction teams, representatives from industry and environmental organizations and state managers negotiated in good faith and did their utmost to devise consensus plans.

However, the RESOLVE report noted that the role of the NMFS staff was not the same on all five take reduction teams, and sometimes the roles of NMFS staff changed over the course of the six-month negotiation. In the take reduction team, the expectation is that representatives can speak on behalf of their organization, association, or agency. It was clear, on several occasions that NMFS staff did not represent the senior management team and did not have the authority to commit the agency to the consensus. This inequity resulted in a significant amount of frustration with the process after the conclusion of the negotiations and at the publication of the plan by NMFS. Often participants perceived that their recommendations were not being acted upon or implemented, because a NMFS staff person with higher authority significantly changed the published take reduction plan from that recommended by the team. Sometimes these changes were made, in direct violation of the MMPA, because they contained little or no justification for the change.

If the take reduction team process is to succeed and participants to regain faith in the NMFS decision makers, those staff with decision-making authority must be present at the table, and they must actively engage in the negotiation process.

C. Allowing Enough Time for Take Reduction Team Negotiations.

While the survey indicated that 60% of respondents felt that there was sufficient time for negotiations, two teams may have reached consensus if they had had additional time. One of the benefits of the MMPA's 6-month statutory time frame is that it pushed players to come to closure on the take reduction team, negotiation; however, two teams in particular—the MATRT and the ALWTRT could have benefited from one additional meeting.

Generally, the timelines specified by the MMPA should not be changed. Time limits call for both facilitator and negotiators to set priorities, and identify issues on which they are most likely to achieve consensus early in the process. This then establishes a foundation from which to attack the more contentious issues later. At the same time, it is important to recognize that difficult issues require sufficient time, and any successful negotiation needs at least one opening session where parties do little more than "posture" and stake out territory before getting down to the business of compromise. In all situations, the take reduction teams met at least four times over several days. The process requires a significant amount of time, and teams often found themselves trying to reach consensus on issues or adopting draft take reduction plans over the phone or by email. In the case of both the ALWTRT and the MATRT consensus may have been reached had there been one additional meeting. CMC recommends that NMFS work to ensure sufficient time for deliberations and the development of a take reduction plan, to the maximum extent possible, there should be one final meeting where the plan is approved. In addition, nearly every take reduction team has recommended that the team meet during the public comment period for the proposed rule to implement the plan. The teams felt that this meeting is critical to discuss changes to the plan or modify the plan if unexpected issues arise.

D. Improve the Data Needs and the Science

Approximately 68% of the survey respondents felt that there was insufficient data to support the negotiations and upon which to base take reduction strategies. The surveys also indicated a greater willingness on behalf of the government and environmental representatives to accept the available data than the fishing community. Nearly every take reduction team identified data gaps and recommended research to address those gaps. The population abundance data, bycatch estimate, observer data, and fishing effort data are central to the success of both the development and implementation of the take reduction plan. NMFS must dedicate sufficient resources to gather this data and update it in a timely manner to it is available for the take reduction team.

In the crafting of the 1994 amendments, the authors deliberately set out to separate the scientific assessment from the regulatory regime, by creating two separate processes. Section 117 of the MMPA specifically addresses stock assessments, independent peer-reviews of those assessments, and consultations. The goal of this approach was to create greater confidence in the science upon which management measures were based. This notion has not proven entirely accurate. Some team members—especially those from the fishing industry—often did not agree on the data, the PBR calculation or estimate or the data upon which it is based. This, in turn, caused significant debate on the necessary level of protection for the marine mammal species or stock. Consequently, the success of the take reduction team deliberations is strongly correlated to each group's ability to accept the underlying stock assessments, bycatch estimates and PBRs, even if they

are "imperfect" science, and move forward to discuss conservation measures. Those teams that were both "data rich" and where there was a level of trust and confidence in the scientists that presented and analyzed the data, faired best.

In addition, scientists who participate in the peer reviews and consultations (scientific review groups), who then participate in the subsequent take reduction team discussions facilitate a better understanding of the origins of the calculations for the fishermen and conservationists. Discussions appear to fare better if there is a person on the take team who is either perceived as unbiased or perhaps was part of regional scientific review group. Additionally, given the imperfection of our existing best available data, the take reduction plans often recommend further research and data collection. The scientist on the take team then can act as a liaison with the regional scientific peer review group to ensure that these recommendations are given attention. Finally, participation by scientists makes the scientific aspects of the management process more transparent. Since fishers tend to be skeptical and challenge data, the presence of a people with scientific expertise lends credibility to the underlying scientific information.

Nevertheless, the issue of reliable and sufficient scientific data upon which to develop and implement take reduction plans is critical to participants' perception of the legitimacy of the process. NMFS must make every attempt to acquire accurate stock assessment, bycatch, effort, and observer data in a timely fashion. Furthermore, that data must be presented and statistically analyzed in a manner that is accessible to all team members. Finally, NMFS must work with take reduction team members to better integrate the scientific process with the management process to garner greater understanding and acceptance of the available science and the biological premise for PBR and the MMPA.

A. NMFS Implementation of the Take Reduction Plans

Perhaps the greatest downfall in the take reduction team process is not the negotiation, but the implementation of the product. In every case, NMFS failed to implement the take reduction plans within the statutory timeframe. In the case of the GOMTRT and the MATRT, NMFS had to be sued to implement the consensus portion of those plans. NMFS also made other critical errors: attempting to implement the take reduction plans under the authority of the Magnuson-Stevens Act and using the take reduction team process to close fisheries. Finally, an equally disturbing reality is NMFS reluctance to accord this process the same level of importance as the fishery management council process. For those individuals engaged in this process, and whose livelihoods depend on the outcome, this process is just as important as council deliberations. Yet, NMFS does not require the staff that has the decision-making authority, such as the regional administrator, to attend. Furthermore, in the case of the ALWTRT, when consensus was not reached on a plan, in formulating its plan, NMFS ignored areas where there was common ground and the history of the debate which could of resulted in NMFS producing both a less controversial and strong and less risk-averse plan than the one it produced. Finally, there is even the question as to how NMFS views this body—some indications are that the take reduction team's views and comments carry no greater weight than those of the general public. This was not the MMPA's intent.

NMFS has severely undermined this process and the good faith that developed among the various interests groups in the course of the negotiations. The implementation of these plans is not in the control of either the environmental community or the fishing industry—it rests with NMFS. Therefore, CMC strongly recommends that NMFS give higher priority to the take reduction team process, the implementation of the plan, commit its decision-makers to be active participants in the process, and view the take reduction team as an advisory body on par with the fishery management council.

In conclusion, take reduction teams are a valuable multi-party process that have a great potential to yield effective conservation strategies to eliminate the entanglement of marine mammals in commercial fishing operations. However, the take reduction teams and plans rely heavily on the good faith efforts and commitment of all participants, effective and timely implementation, and adequate resources to gather the information needed to evaluate whether the plan is achieving its goals. The success of these teams hinges on NMFS ability to be an active participant and secure the necessary resources.

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