

**DEPARTMENT OF COMMERCE****National Oceanic and Atmospheric Administration****50 CFR Part 635**

[Docket No. 991210332-0212-02; I.D. 110499B]

RIN 0648-AM79

**Atlantic Highly Migratory Species; Pelagic Longline Management**

**AGENCY:** National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

**ACTION:** Final rule.

**SUMMARY:** NMFS issues final regulations to prohibit pelagic longline fishing at certain times and in certain areas within the Exclusive Economic Zone of the Atlantic Ocean off the coast of the Southeastern United States and in the Gulf of Mexico, and to prohibit the use of live bait when deploying pelagic longline gear in the Gulf of Mexico. This action is necessary to reduce bycatch and incidental catch of overfished and protected species by pelagic longline fishermen who target highly migratory species (HMS).

**DATES:** This final rule is effective September 1, 2000.

**ADDRESSES:** For copies of the Final Supplemental Environmental Impact Statement/Regulatory Impact Review/Final Regulatory Flexibility Analysis (FSEIS/RIR/FRFA), contact Steve Meyers at 301-713-2347 or write to Rebecca Lent, Chief, HMS Division (SF/1), Office of Sustainable Fisheries, NMFS, 1315 East-West Highway, Silver Spring, MD 20910.

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**SUPPLEMENTARY INFORMATION:** The Atlantic swordfish and tuna fisheries are managed under the authority of the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) and the Atlantic Tunas Convention Act (ATCA). The Fishery Management Plan for Atlantic Tunas, Swordfish, and Sharks (HMS FMP) is implemented by regulations at 50 CFR part 635.

**Pelagic Longline Fishery**

Pelagic longline gear is the dominant commercial fishing gear used by U.S. fishermen in the Atlantic Ocean to target highly migratory species. The gear

consists of a mainline, often many miles in length, suspended in the water column by floats and from which baited hooks are attached on leaders (gangions). Though not completely selective, longline gear can be modified (e.g., gear configuration, hook depth, timing of sets) to target preferentially yellowfin tuna, bigeye tuna, or swordfish.

Observer data and vessel logbooks indicate that pelagic longline fishing for Atlantic swordfish and tunas results in catch of non-target finfish species such as bluefin tuna, billfish, and undersized swordfish, and of protected species, including threatened and endangered sea turtles. Also, this fishing gear incidentally hooks marine mammals and sea birds during tuna and swordfish operations. The bycatch of animals that are hooked but not retained due to economic or regulatory factors contributes to overall fishing mortality. Such bycatch mortality may significantly impair rebuilding of overfished finfish stocks or the recovery of protected species.

**Proposed Bycatch Reduction Strategy**

Atlantic blue marlin, white marlin, sailfish, bluefin tuna, and swordfish are overfished. In the HMS FMP and Amendment 1 to the Atlantic Billfish FMP (Billfish FMP Amendment), NMFS adopted a strategy for rebuilding these stocks through international cooperation at the International Commission for the Conservation of Atlantic Tunas (ICCAT). This strategy primarily involves reducing fishing mortality through the negotiation of country-specific catch quotas according to rebuilding schedules. However, the contribution of bycatch to total fishing mortality and the fact that ICCAT catch quotas for some species require that countries account for dead discards must be considered in the HMS fisheries. The swordfish rebuilding plan that was adopted by ICCAT at its 1999 meeting provides added incentive for the United States to reduce swordfish discards.

In addition to ICCAT stock rebuilding efforts, several other applicable laws require that NMFS address bycatch issues in the HMS fisheries. These include the Magnuson-Stevens Act, the Marine Mammal Protection Act (MMPA), and the Endangered Species Act (ESA). Magnuson-Stevens Act national standard 9 for fishery management plans requires U.S. action to minimize bycatch and bycatch mortality to the extent practicable.

Under the MMPA, the Atlantic pelagic longline fishery has been listed as a Category I fishery due to the frequency of incidental mortality and

serious injury to marine mammals. The Atlantic Offshore Cetacean Take Reduction Team was formed in May 1996 to address protected species bycatch in the Atlantic pelagic fisheries. A take reduction plan, submitted to NMFS in November, 1996, that contained measures to address the bycatch of strategic stocks of marine mammals, noted that additional reductions in takes of marine mammals could occur with closures of certain fishing areas during times of high interaction rates.

Finally, under the ESA, NMFS is required to address fishery-related take of sea turtles that are considered threatened or endangered. Although most turtles are released alive, NMFS remains concerned about serious injuries of turtles hooked on pelagic longline gear. To the extent that turtle interactions occur at higher rates in certain fishing areas at particular times, time-area closures for pelagic longline fishing could affect turtle takes. An area closure to address swordfish discards could also help reduce sea turtle interactions if these animals tend to occur in the same ocean areas at the same time. Conversely, if sea turtle interactions are relatively higher in areas that remain open, fishing effort displaced from areas closed to protect juvenile swordfish could lead to increased turtle takes.

In the final HMS FMP and Billfish FMP Amendment, NMFS stated that a comprehensive approach to time-area closures would be undertaken as part of a bycatch reduction strategy after further analysis of the data and consultation with the HMS and Billfish Advisory Panels (APs). NMFS held a combined meeting of the HMS and Billfish APs on June 10-11, 1999, to discuss possible alternatives for a proposed rule under the framework provisions of the HMS FMP. The AP members were generally supportive of the time-area management strategy, provided several comments on temporal and/or spatial components that NMFS should consider further in its analyses, and requested that NMFS develop a written document outlining all analytical methods and results of the time-area evaluation. The APs' comments and suggestions were included in the development of a draft Technical Memorandum, which was made available to the public on November 2, 1999 (64 FR 59162).

Subsequent to the release of the Technical Memorandum, NMFS considered three alternative actions to reduce bycatch and/or bycatch mortality in the Atlantic HMS pelagic longline fishery: status quo, gear modifications that would decrease hook-ups and/or

increase survival of bycatch species, and the prohibition of longline fishing in areas where rates of bycatch or incidental catch are higher. NMFS considered gear modifications beyond those examined previously during development of the HMS FMP. NMFS also considered a broad range of closures, both in terms of area and time. A proposed rule was published December 15, 1999 (64 FR 69982), for which alternatives were identified and analyzed in a draft Supplemental Environmental Impact Statement (64 FR 73550, December 30, 1999). The proposed rule included closed areas for pelagic longline gear in the western Gulf of Mexico and off the southeast coast of the United States.

During the comment period on the proposed rule, NMFS received comment on many issues related to the proposed time/area closures. In particular, commenters noted that the proposed closure in the western Gulf of Mexico would not adequately address juvenile swordfish bycatch in the DeSoto Canyon area of the eastern portion of the Gulf. Additionally, commenters noted the significant economic impacts associated with large scale area closures in that vessel operators and shoreside support services would need considerable time for adjustment and relocation. Given these comments, NMFS analyzed the potential impacts of an additional closed area in the DeSoto Canyon. Subsequently, NMFS published supplementary information regarding the potential impacts of closing the DeSoto Canyon Area together with a revised summary of the IRFA prepared for the proposed rule (65 FR 24440, April 26, 2000). The comment period for the proposed rule was reopened through May 12, 2000, and NMFS specifically requested comments on the extent to which delayed effectiveness could mitigate the economic impacts of area closures.

#### ESA Consultation

On November 19, 1999, NMFS reinitiated consultation under section 7 of the ESA based on preliminary reports that observed incidental take of loggerhead sea turtles by the Atlantic pelagic longline fishery during 1999 had exceeded levels anticipated in the Incidental Take Statement (ITS) previously issued for the HMS FMP. Additionally, the consultation included the pelagic longline management rulemaking that was in preparation, as it was recognized that the time/area closures, if implemented, could affect the overall interaction rates with sea turtles. In a Biological Opinion issued on June 30, 2000 (BO), NMFS concluded

that operation of the pelagic longline fishery was likely to jeopardize the continued existence of loggerhead and leatherback sea turtles. The BO identified the Reasonable and Prudent Alternatives (RPAs) necessary to avoid jeopardy and listed the Reasonable and Prudent Measures (RPMs) and Terms and Conditions (TCs) necessary to authorize continued take as part of a revised ITS. While the implications of the BO are discussed in this final rule, NMFS will undertake additional rulemaking and non-regulatory actions as required to implement the additional management measures required under the BO.

#### Response to Comments

NMFS received several hundred comments and several thousand form letters during the 2 comment periods, 13 public hearings, and 2 joint AP meetings of this rulemaking. Following are summaries of the comments together with NMFS' responses.

##### General

*Comment 1:* There is no conservation benefit from the proposed closures except for small swordfish; therefore, the proposed time/area closures will probably have an imperceptible effect on rebuilding overfished HMS.

*Response:* NMFS disagrees. Depending on the amount of redistribution of effort under the proposed closed areas, other species, such as sailfish and large coastal sharks, may benefit from these closures. Under the no-effort redistribution model, billfish discards are reduced by 19 to 43 percent, although, as discussed in the FSEIS, the actual benefit of these time/area closures is likely somewhere between the extremes predicted by the effort redistribution models. Further, prohibiting the use of live bait will provide a 10- to 46-percent reduction in billfish discards in the Gulf of Mexico. National standard 9 of the Magnuson-Stevens Act requires that FMPs reduce bycatch to the extent practicable.

Although it was not a stated objective of the final rule to rebuild overfished stocks through time/area closures or gear modifications, some benefit to rebuilding may also be experienced to the degree that mortality rates will be reduced for juveniles, pre-adults, and reproductive fish. Also, to the extent that the United States can use the domestic bycatch reduction program, including time/area closures and gear modifications, to convince other ICCAT member nations that bycatch should be minimized, these actions may have a significant impact on Atlantic-wide rebuilding of overfished HMS stocks.

*Comment 2:* NMFS is already past the deadline for a rebuilding program for overfished HMS that includes bycatch reduction measures.

*Response:* NMFS disagrees. The HMS FMP and the Billfish FMP Amendment include rebuilding plans that meet Magnuson-Stevens Act guidelines. The swordfish rebuilding program recently adopted by ICCAT is based in large part on the rebuilding plan outlined in the HMS FMP. Similarly, the rebuilding plans for blue and white marlin emphasize the importance of international efforts to reduce bycatch and bycatch mortality. NMFS implemented bycatch reduction measures in the HMS FMP, including limited access for swordfish and shark fisheries, time/area closure for pelagic longline gear to reduce bluefin tuna dead discards, limiting the length of mainline for longline fishermen, and other measures summarized in the HMS FMP. The Billfish FMP Amendment also outlined a bycatch reduction strategy. NMFS expects that additional measures will continue to be implemented for all HMS fisheries, including educational workshops that share results of recent research on gear modifications. Finally, as a result of the jeopardy finding in the BO, NMFS will initiate implementation of the requirements of the BO via additional rulemaking and other non-regulatory means.

*Comment 3:* NMFS should extend the VMS implementation deadline past June 1, 2000.

*Response:* NMFS agrees. On April 19, 2000 (65 FR 20918), NMFS extended the effective date until September 1, 2000. This will provide adequate time (2 months) to ensure that all systems are fully functional prior to the implementation of the time/area closures. Also, implementation of the measures in the BO may require a time/area closure and/or gear setting restrictions to be enforced by VMS.

*Comment 4:* As the swordfish stocks continue to rebuild, the United States may need more U.S. boats to harvest the swordfish quota.

*Response:* NMFS disagrees. The final regulations implementing the HMS FMP (May 28, 1999; 64 FR 29090), NMFS established a limited access program for Atlantic swordfish, Atlantic shark, and the pelagic longline sector of the Atlantic tuna fisheries. A description of the qualifying requirements for a directed or incidental limited access permit is contained in Chapter 4 of the HMS FMP. Using a multi-tiered process based on participation, approximately 450 limited access swordfish permits (directed and incidental) were awarded.

Subsequent examination of fishing activity by these vessels in preparation of the proposed and final rule indicates that a significant portion did not report any HMS landings in either 1997 (331 vessels reported HMS landings) or 1998 (208 vessels reported HMS landings). Currently, the North Atlantic swordfish stock is estimated to be at 65 percent of the level needed to support maximum sustainable yield (MSY). When the stock attains the level consistent with MSY, it is likely that the number of U.S.-flagged vessels with directed or incidental swordfish permits will be sufficient to handle any potential increase in the U.S. swordfish quota.

*Comment 5:* NMFS should be concerned about small sources of mortality that may exacerbate overfishing and slow rebuilding.

*Response:* NMFS agrees and is concerned about all sources of mortality on HMS stocks. NMFS is committed to work through available international fora to rebuild overfished HMS stocks, even when U.S. fishing is responsible for only a small source of the total Atlantic-wide mortality. The rebuilding plans provided in the Billfish FMP Amendment are indicative of this commitment. Further, the Agency is required by the Magnuson-Stevens Act to take appropriate conservation actions, while considering the social and economic impacts on fishermen and fishing communities, and as such must consider management actions that meet the national standard guidelines.

*Comment 6:* NMFS should increase outreach efforts to inform the public of the need for management of HMS resources.

*Response:* NMFS agrees but is currently restricted from increasing outreach efforts by competing demands for funding (e.g., funds for observers, science). Note that the NMFS Highly Migratory Species Management Division posts current events and useful documents on the website [www.nmfs.noaa.gov/sfa/hmspg.html](http://www.nmfs.noaa.gov/sfa/hmspg.html). NMFS also produces informational brochures on current fishing regulations and mailouts, and NMFS uses a fax network for distribution of information. NMFS scientists are also participating in periodic outreach programs to share information on life history of billfish, sharks and tunas, as well as sharing information on methods that will enhance survival of released fish. An information hotline has also been established that summarizes current fisheries regulations as they apply to HMS. The hotline can be accessed by calling toll-free at 1-800-894-5528. Additional outreach efforts will be

implemented as funding becomes available.

*Comment 7:* The proposed closed areas will result in an increase in swordfish imports into the United States; this would deny U.S. seafood consumers access to fresh, quality-controlled fish.

*Response:* NMFS does not anticipate that the U.S. fleet will be unable to meet its quota as a result of this final rule. Therefore, it is unlikely that imports will increase as a result of closed areas, although imports may increase for other unrelated reasons. NMFS does regulate the swordfish market other than to prohibit the import of undersized Atlantic swordfish into the U.S., which is monitored through the Certificate of Eligibility program. NMFS does not anticipate that this rule would affect the availability of high-quality, inspected seafood products provided to citizens of the United States by U.S. commercial fishermen. Imports of fishery products into the United States are also subject to the same hazard analysis and critical control point (HACCP) guidelines as are domestic landings.

*Comment 8:* The proposed closed areas are not equitable for constituents in different states.

*Response:* As required by national standard 2 of the Magnuson-Stevens Act, NMFS utilized the best available scientific information to develop the proposed rule and the final action. NMFS used logbooks, observer programs, and various scientific studies to identify distributional patterns of seasonal abundance, by species, and areas of overlap between various HMS, protected and endangered species, as defined by concentrations of bycatch and incidental catch from pelagic longline gear in the U.S. EEZ. Therefore, in large part, the biology of the species dictated the locations of the closures. In the selection of the final actions, international obligations and the national standards were considered, including the issue of equity, as required by national standard 4. While the final closed areas may have larger impacts on fishermen who fish in those areas, such impacts are not inconsistent with national standard 4.

*Comment 9:* NMFS is ignoring sea bird bycatch by the recreational fishermen who troll for HMS.

*Response:* NMFS disagrees that it is ignoring sea bird bycatch. NMFS has no data indicating that sea birds are caught and discarded in the recreational fishery for HMS. NMFS is currently implementing a logbook and a voluntary observer program for charter/headboats involved with HMS fisheries. This program will provide additional

information on recreational fishing, including any possible interactions with seabirds or other protected or endangered species. If the data collected indicate that a sea bird bycatch problem exists in the U.S. recreational troll fisheries, NMFS will take appropriate action.

*Comment 10:* NMFS should quantify bycatch and bycatch mortality in the recreational fishery.

*Response:* NMFS agrees that quantifying bycatch and bycatch mortality in recreational fisheries is important and has collected data used to quantify bycatch of large pelagics in the recreational fishery. Such data are reported in the U.S. National Report prepared each year by NMFS for submission to ICCAT. The Billfish FMP Amendment established a catch-and-release fishery management program for the recreational Atlantic billfish fishery; therefore, all billfish released alive, regardless of size, by recreational anglers are not considered as bycatch. However, the mortality associated with the capture-and-release event is an important component to quantify for population assessment. NMFS currently collects data on the number of billfish retained and released at selected tournaments. NMFS has funded studies to quantify the bycatch mortality in bluefin tuna and billfish recreational fisheries, and NMFS scientists have recently reported on the use of circle hooks to reduce release mortality for the recreational billfish fishery. NMFS encourages fishermen to handle and release HMS in a manner that maximizes their chances of survival.

*Comment 11:* NMFS should re-establish the Second Harvest Program for swordfish whereby undersized swordfish are fed to the hungry instead of being discarded as bycatch.

*Response:* The specific regulations for the swordfish donation program were eliminated when the HMS regulations were consolidated in implementing the final HMS FMP and Billfish FMP Amendment (May 29, 1999; 64 FR 29090). During the consolidation process, the swordfish donation program regulations were evaluated under the President's Regulatory Reinvention Initiative. Given the low level of participation in the program at the time and the anticipated reduction in dead discards of undersized swordfish as the U.S. moved to adopt the alternative minimum size, it was determined that potential scale of operations did not require extensive regulatory text. However, under the current consolidated regulations, a fishermen could apply for an Exempted Fishing Permit (EFP) to authorize the

donation of certain fish that could not otherwise be retained (e.g., swordfish in excess of the bycatch limits in effect for the particular vessel). Thus, the regulations still provide a mechanism for a donation program.

*Comment 12:* NMFS regulations force pelagic longline fishermen to discard swordfish, thus increasing bycatch in this fishery. NMFS should have a higher minimum size with a tolerance for undersized fish to reduce bycatch.

*Response:* Swordfish caught below the minimum size are regulatory discards and, as such, are considered bycatch. The minimum size limit was established to create an incentive for fishermen to avoid areas of undersized swordfish, though this was found to be less successful than anticipated. NMFS discontinued the use of a higher minimum size with a 15-percent tolerance for smaller fish because of concerns about the difficulty in enforcing such a measure. NMFS proposed a lower minimum size with no tolerance, and industry participants largely supported this decrease, stating that most of the fish landed under the tolerance provisions were just under the higher minimum size. In the Spring of 1999, the ICCAT Advisory Committee recommended that NMFS evaluate the efficacy of the swordfish minimum size limit and reconsider eliminating that size limit if warranted. Pending the outcome of that evaluation, ICCAT is expressly considering discards in the swordfish catch allocation scheme. Under the 1999 ICCAT recommendation, total North Atlantic discards of undersized swordfish are subject to an allowance of 400 mt Atlantic-wide for the 2000 fishing season; the U.S. receives 80 percent of this dead discard allowance (320 mt). The United States is obligated by international agreement to address swordfish discards. The time/area closures defined in the final rule will significantly reduce swordfish discards by U.S. pelagic longline vessels. Although some small swordfish will still be encountered under time/area management, the overall proportion of the catch that is discarded will be reduced and may, in fact, provide an opportunity to consider alternatives to minimum sizes in the international management of Atlantic swordfish.

*Comment 13:* The proposed closed areas are expected to increase the catch of mako, thresher, and blue sharks. The pelagic shark stocks will not be able to withstand the possible increase in pelagic shark mortality (landings and discards) associated with pelagic longline effort redistribution.

*Response:* Although the status of the pelagic sharks stock is currently designated as unknown, NMFS disagrees that the final rule will have a significant adverse impact on pelagic shark mortality. However, this does not mean that NMFS is not concerned about the status of these stocks. In fact, the HMS FMP established a blue shark quota, including dead discards from pelagic longline gear, that effectively sets an upper limit to the magnitude of impacts from displaced effort. In analyzing the impacts of the final closed areas, NMFS predicts only a 4-percent increase in pelagic shark landings and estimated discard rates increase by 8 percent under the effort redistribution model, which may overestimate impacts on bycatch and target catch. NMFS will closely monitor all pelagic shark landings through logbook and observer programs to follow changes in landing patterns resulting from effort redistribution.

*Comment 14:* The proposed time/area closures will reduce gear conflicts between the growing recreational HMS fisheries and commercial fishing communities, but in some areas, particularly the eastern Gulf of Mexico and Mid-Atlantic Bight, conflicts could potentially increase.

*Response:* NMFS previously identified gear conflicts between recreational and commercial entities in the 1988 Atlantic Billfish FMP and in the 1999 Amendment to that FMP. NMFS agrees that conflicts between recreational and commercial fishing groups could escalate in areas that remain open as a result of pelagic longline effort redistribution. Mitigating possible user conflicts was one of several reasons that temporal and spatial components of the proposed action were refined in the final action and, in the case of the western Gulf of Mexico, replaced by a live bait prohibition. Any management measure leading to a reduction in bycatch of billfish from commercial fishing gear may lead to localized increases in angler success and resultant economic benefits to associated U.S. recreational industries.

*Comment 15:* NMFS should consider implementing Individual Transferable Quotas (ITQs) in the future as a bycatch reduction measure, particularly for bluefin tuna in the longline fishery.

*Response:* Implementation of an ITQ scheme, with the sole or even partial purpose of reducing discards, could be considered and would require extensive detailed analysis before proceeding. However, NMFS is prohibited by the Magnuson-Stevens Act from implementing new ITQ programs at this

time. The HMS FMP specifically addressed the bycatch of bluefin tuna by the pelagic longline fishery through implementation of a time/area closure during June off the Mid-Atlantic Bight. Initial results of the efficacy of the first closure (June 1999) are preliminary and do not indicate that the anticipated reductions were fully achieved. NMFS is currently reviewing whether the results are due to (1) a limited time frame for outreach (the final rule was published on May 28, 1999, with an effective date of June 1, 1999, for the bluefin tuna pelagic longline closure); (2) enforcement issues (VMS implementation was delayed until September 1, 2000); or, (3) inter-annual variation in the areas of BFT interaction (increased discards occurred outside of the closed area).

*Comment 16:* Large closed areas will pose significant enforcement challenges to U.S. Coast Guard (USCG) since the areas identified for closure in the proposed rule are not routinely patrolled by cutters. (This comment received from the USCG was followed up by a comment that supports the use of VMS to enforce closed areas.)

*Response:* NMFS recognizes the need for effective enforcement of these closed areas and, as such, supports the use of VMS, which will become effective for all pelagic longline vessels on September 1, 2000 (65 FR 20918; April 19, 2000). USCG resources will continue to be utilized, as that Agency is capable of confirming a vessel's location and whether it is fishing in the closed area. NMFS has entered into a cooperative agreement with the USCG to assist in the monitoring of fishing vessels at USCG locations.

*Comment 17:* NMFS should define the closed area by latitude and longitude in the regulatory text, including the designation for the U.S. EEZ.

*Response:* Except for a small portion of the East Florida Coast area, NMFS provides latitude and longitude coordinates for the boundaries to the closed areas in the regulatory text of this final rule. Given the curvature of the EEZ boundary between the U.S. and the Bahamas, it would be too complicated to express that segment of the boundary in latitude and longitude coordinates. NMFS notes that the EEZ boundary is plotted on most NOAA nautical charts and that vessel operators fishing that area must be familiar with the EEZ boundary in any case, as they are not authorized to fish commercially in the Bahamas.

*Comment 18:* NMFS should take these proposed closed areas to ICCAT and encourage international closed areas.

*Response:* NMFS supports consideration of closed areas and gear modifications to reduce undersized swordfish catch and fishing mortality and to protect spawning and/or nursery areas for swordfish and billfish on an Atlantic-wide basis, as discussed in the HMS FMP and Billfish FMP Amendment. In 1999, ICCAT adopted a U.S.-sponsored resolution for the development of possible international time/area closures (and gear modifications), and the Standing Committee for Research and Statistics (SCRS) is scheduled to provide a report on this topic at the ICCAT meeting in 2002. The final rule will be included in the U.S. National Report that will be submitted to ICCAT in October, 2000.

*Comment 19:* NMFS should ban pelagic longline gear or, at least, ban the use of this gear inside the U.S. EEZ.

*Response:* NMFS disagrees. Banning pelagic longline gear in the U.S. EEZ is not necessary to protect highly migratory species. Bycatch can be addressed through time/area closures, education, and gear modifications. Requiring all vessels using pelagic longline gear to fish only outside the 200 mile limit may also be inconsistent with consideration of safety issues as required under national standard 10.

*Comment 20:* Closures are not necessary; swordfish are rebuilding.

*Response:* NMFS agrees that the North Atlantic swordfish stock may have stabilized and that an international rebuilding program is in place. To the extent that the time/area closures will reduce bycatch and bycatch mortality of undersized swordfish, pre-adults, and spawning fish, the closures will enhance stock rebuilding. Furthermore, NMFS is required by an ICCAT recommendation and under national standard 9 to minimize bycatch, to the extent practicable. Providing protection of small swordfish and reproducing fish though time/area closures is particularly critical as stocks begin to rebuild. The United States is allocated 29 percent of the north Atlantic swordfish quota (1997 through 1999), and approximately 80 percent of the reported dead discards. Under the 1999 ICCAT recommendation, the total North Atlantic dead discard allowance for the 2000 fishing season is 400 mt; the U.S. receives 80 percent of the North Atlantic dead discard allowance (320 mt). The dead discard allowance for the United States is reduced to 240 mt in 2001, 160 mt in 2002, and will be phased out by 2004, with any overage of the discard allowance coming off the following year's quota. A total of 443 mt of swordfish were reported discarded by U.S. fishermen in the North Atlantic

during 1998. Under the time/area strategy of the final rule, the no effort redistribution model predicts a 41.5-percent reduction in discards; under the effort redistribution model, discards are reduced by 31.4 percent. The closures could potentially reduce discards from 1998 levels to 259 mt under the no-effort redistribution model and to 304 mt under the effort redistribution model, thereby meeting at least the year 2000 discard allocation levels without affecting the subsequent year's quota.

*Comment 21:* NMFS should increase observer coverage of all components of HMS fisheries, including the pelagic longline fishery.

*Response:* NMFS agrees that it would be beneficial to increase observer coverage to document bycatch in all HMS fishing sectors. Observer coverage of the pelagic longline averaged between 4 and 5 percent between 1992 through 1998; a total of 2.9 percent of pelagic longline sets were observed during 1998. However, given current fiscal constraints, NMFS will not likely be able to significantly increase observer coverage in the pelagic longline fishery. NMFS will investigate additional funding mechanisms. Depending on funding, NMFS may implement an initial phase of the HMS charter/headboat and voluntary observer program in the summer of 2000 that will provide additional bycatch information from recreational fisheries.

*Comment 22:* NMFS should develop a comprehensive bycatch strategy, including specific targets for bycatch reduction.

*Response:* NMFS disagrees that setting fixed bycatch targets is necessary; in fact, such targets may be counterproductive. The multi-species approach followed in the development of the proposed and final action to reduce bycatch, bycatch mortality, and incidental catch precludes setting target reduction for specific species without considering the impact on the remaining portion of the catch composition. For example, if the time/area closures were simply based on reducing swordfish discards by a set percentage, a concomitant increase in bycatch of other species could occur, or target catches could be reduced more than necessary to achieve national standard 9 mandates. NMFS agrees that a comprehensive bycatch strategy is necessary and has outlined a plan that incorporates data collection, analysis, and measures that minimize bycatch, to the extent practicable. This strategy is outlined in the HMS FMP and the Billfish FMP Amendment.

*Comment 23:* NMFS should conduct educational workshops.

*Response:* NMFS supports the use of educational workshops to disseminate information on current research regarding bycatch reduction and to provide a forum through which fishermen can share bycatch reduction techniques with each other. NMFS scientists periodically hold seminars for fishermen to discuss the benefits of circle hooks and other handling techniques in the recreational billfish fishery. NMFS will seek input from representatives of fishing organizations and from the AP members regarding opportunities for workshops. Depending upon available funding and staff, NMFS will hold educational workshops to examine bycatch reduction activities in HMS fisheries, both for recreational and commercial fishermen.

*Comment 24:* NMFS needs to be able to respond quickly to results of monitoring and evaluation of closed areas. NMFS should develop a framework process for adjusting closed areas, if necessary, in a timely manner.

*Response:* NMFS agrees that a quick response to shifting fishing effort patterns is necessary. NMFS is currently able to adjust or develop new closed areas through the framework process (proposed and final rules, including public comment period) without amending the HMS FMP in the event that closed areas need to be altered to maximize the benefits to the nation. However, it will take time to collect and analyze the appropriate information, including data from the mandatory logbooks, observer program, and VMS.

*Comment 25:* NMFS should reduce effort in the longline fishery, not just reduce bycatch.

*Response:* The intent of this rulemaking is not to reduce effort in the fishery, but to reduce bycatch while minimizing the reduction of target catch by shifting effort away from areas with high bycatch and incidental catch. NMFS agrees that under a quota system, a time/area closure scheme will not necessarily reduce effort, although some vessel operators may choose to discontinue fishing due to economic or social factors. The use of time/area closures and gear restrictions (prohibition of live bait) was deemed by NMFS to be the best available management tool to reduce current levels of bycatch by the pelagic longline fishery, as required by national standard 9.

*Comment 26:* NMFS should consider additional actions to address the impact of the increase in sea turtle interactions resulting from pelagic longline effort redistribution.

*Response:* NMFS agrees that sea turtle interactions with pelagic longline gear

must be minimized as required by the ESA for listed species. On November 19, 1999, NMFS reinitiated consultation with NMFS' Office of Protected Resources based on preliminary information on the 1999 take levels by the pelagic longline fishery. The BO issued on June 30, 2000 concluded that the continuation of the pelagic longline fishery could jeopardize the continued existence of loggerhead and leatherback sea turtles. The final time/area closures along the southeastern U.S. Atlantic coast were temporally and spatially reconfigured to mitigate, to the extent practicable, the impact of effort redistribution on sea turtle interactions. Bycatch rates, particularly for sea turtles, may be over-estimated by the effort redistribution model because the model estimated bycatch rates by assuming random or constant catch-per-unit-effort in all remaining open areas. This estimation procedure could skew results for certain species if those species are concentrated in certain areas (such as sea turtles in the Grand Banks), instead of being randomly distributed over the entire open area. Fishing activities will be monitored using VMS, as well as through logbooks and on-board observers, to determine impacts of actual effort redistribution, which may require further Agency action to address increased turtle takes. NMFS is initiating efforts to address the requirements of the BO, including possible regulatory and non-regulatory actions.

*Comment 27:* NMFS is proceeding with the use of time/area management strategies only because of litigation filed against NMFS by various environmental groups following publication of the final rules implementing the HMS FMP.

*Response:* NMFS disagrees. During public hearings held during the Fall of 1998 as part of the scoping process used to develop management alternatives for the draft HMS FMP and the Billfish FMP Amendment, NMFS received many comments regarding the utility of time/area closures to reduce bycatch in various HMS fisheries, including pelagic longline gear, and their use in protecting essential fish habitat (e.g., spawning and nursery grounds). The draft HMS FMP included a closure of a portion of the Florida Straits to reduce swordfish discards. Comments on the proposed action indicated that the area was spatially and temporally too limited to accomplish any significant reduction in bycatch, and, consequently, the area was not included as part of the final action. However, the HMS FMP clearly stated that, following publication of a final rule, an evaluation of wide-ranging time/area closures would be completed

and implemented, if warranted. NMFS honored that commitment through the preparation of the Draft Technical Memorandum and the proposed and final rules, establishing both time/area and gear modifications to reduce bycatch by the U.S. Atlantic HMS pelagic longline fishery.

*Comment 28:* The comment period for the DeSoto Canyon area closure alternative is too short. Additional time must be provided to allow those in the affected area to adequately respond to this potentially devastating closure.

*Response:* NMFS disagrees that additional time was warranted for public comment on the DeSoto Canyon closure alternative. During the public hearing period for the proposed rule (December 15, 1999, to March 1, 2000), NMFS received many comments indicating that an additional closure was needed in the northeastern Gulf of Mexico because of the historically high swordfish discard rate in the area. In response to this comment, NMFS conducted additional analysis and identified an area generally around the DeSoto Canyon that in fact did have high incidence of discards of swordfish relative to swordfish kept. Although the DeSoto Canyon is included within areas that were analyzed in the DSEIS and draft Technical Memorandum (made available November 1999), NMFS decided that an additional comment period was needed specifically on the potential utility of this closure because pelagic longline effort has declined by greater than 50 percent in this area over the past 5 years. NMFS notified the public of its intentions to consider a sub-area of previously analyzed areas in the Gulf of Mexico (i.e., DeSoto Canyon) through the HMS fax network, which is sent to thousands of permit holders, seafood dealers and fish houses throughout the eastern United States. In addition, NMFS mailed the **Federal Register** notice with supplementary information summarizing the biological, economic, and social analysis of the DeSoto Canyon closure, and the VMS materials to all HMS pelagic longline permittees. As a result of the April 26, 2000, **Federal Register** notice (65 FR 24440) soliciting comment on this alternative, NMFS received hundreds of responses, indicating that adequate time was provided for comment.

*Comment 29:* Fish farming is the only answer to providing fish as a food for our population.

*Response:* NMFS agrees that aquaculture and mariculture play and have an important role to play in providing fishery products, but disagrees that they are the only answer.

#### *Use of Time/Area Closures to Reduce Bycatch*

*Comment 1:* NMFS should use time/area closures to reduce bycatch.

*Response:* NMFS agrees that closed areas can be an effective way to reduce bycatch, both in the U.S. and international pelagic longline fisheries, and this final rule implements time/area closures for the pelagic longline fisheries in the Gulf of Mexico and along the southeastern U.S. Atlantic coast. Due to efforts of the United States, ICCAT has asked its scientific committee to explore the use of closed areas throughout the management unit. Swordfish, marlin, sailfish, and other HMS are considered overfished and are currently experiencing overfishing Atlantic-wide. The rebuilding plans established in the HMS FMP and the Billfish FMP Amendment will be enhanced to the extent that reduction of bycatch will decrease mortality of juveniles and reproductive fish. Further, a reduction in swordfish discards is now critical for the U.S. pelagic longline fishery as a result of the 1999 ICCAT recommendation setting a North Atlantic discard allowance that is incrementally reduced to a zero tolerance level by 2004.

*Comment 2:* NMFS should change the size and/or shape of the proposed western Gulf of Mexico closed area.

*Response:* NMFS agrees and is closing the DeSoto Canyon area year-round to pelagic longline fishing to address undersized swordfish discards and to prevent further increases in swordfish discards as a result of possible effort displacement to this area in response to the southeastern U.S. Atlantic coastal closures. Further, NMFS has attempted to mitigate the economic effects of the actions specifically aimed at reducing billfish bycatch, by eliminating the proposed western Gulf closure and by prohibiting use of live bait by pelagic longline vessels in the Gulf of Mexico instead. This gear modification is potentially as effective in reducing sailfish discards as the western Gulf closure and is approximately half as effective in reducing marlin discards. However, in consideration of the magnitude of U.S. billfish discards relative to Atlantic-wide levels and the extent of the economic impacts associated with the proposed western Gulf closure, modifying fishing practices is a viable alternative that effectively accomplishes the objectives of reducing billfish bycatch while allowing fishing to continue in the western Gulf of Mexico.

*Comment 3:* Several commenters supported a closure of the Charleston

Bump area. Conversely, other commenters stated that the level of fishing activity in the Charleston Bump area does not warrant closure of this area.

*Response:* Although pelagic longline activity in the Charleston Bump area results in bycatch of small swordfish throughout the year, over 70 percent of the swordfish bycatch takes place during February through April. Therefore, NMFS is closing the Charleston Bump area for this 3-month time frame of the highest discard rates. This partial year closure addresses the bulk of swordfish discards while minimizing social and economic impacts of the rule by allowing fishing for 9 months, rather than the year-round closure included in the proposed Agency action. Minimizing the temporal component of the Charleston Bump closure also reduces the magnitude of potential increases in sea turtles interactions and white marlin discards predicted by the displaced effort model for the proposed rule. Nevertheless, NMFS is aware of the overall concerns regarding this area relative to potential increases in effort and concomitant effects on bycatch and incidental catch and will monitor fishing activity to determine whether a larger/longer closure is necessary in the Charleston Bump area. If necessary, NMFS would pursue further action through the FMP framework process.

*Comment 4:* NMFS should consider additional pelagic longline closed areas in a future rulemaking.

*Response:* NMFS agrees that additional closed areas may be necessary to address bycatch, bycatch mortality, and incidental catch, particularly to address sea turtle takes as discussed in section 5.8 of the FSEIS. Shifts in fishing effort patterns may also warrant future rulemaking to close affected areas. NMFS will continue to monitor the pelagic longline fleet throughout its range.

*Comment 5:* NMFS should change the shape, size, and/or timing of the South Atlantic proposed closed area.

*Response:* NMFS agrees. NMFS is closing the southern part of the proposed Southeast area below 31°N latitude (East Florida Coast) year-round in order to maximize the bycatch reduction benefits. The northern portion of the proposed closed area (Charleston Bump) is closed for the period of highest swordfish discards during February through April. NMFS may consider a larger closure in the Charleston Bump area if effort increases significantly in this area, resulting in increased incidental catches or discards of overfished HMS or protected species.

NMFS would pursue this action through the FMP framework process.

*Comment 6:* NMFS should include a closure of the Mid-Atlantic Bight and/or a Northeast area to pelagic longline gear.

*Response:* NMFS disagrees that this rule should close the Mid-Atlantic Bight and/or Northeast coastal statistical areas. The areas closed by this rule are considered temporal and spatial "hot spots" for HMS bycatch from U.S. pelagic longline effort within the U.S. EEZ, as evaluated by the frequency of occurrence and the relationship between total catch and discard rates. NMFS has included a closure in the mid-Atlantic area as part of the final HMS FMP to reduce bluefin tuna discards from pelagic longline gear. Nevertheless, NMFS recognizes that pelagic longline effort will likely increase in areas that remain open (as analyzed in the redistribution of effort model in FSEIS). By minimizing the size of the closure in the Gulf of Mexico and shortening the closed season for the Charleston Bump area, NMFS expects that the effects of effort redistribution would be lessened from those evaluated in the DSEIS and proposed rule. Considering HMS bycatch, closures of the Mid-Atlantic Bight, beyond the June pelagic longline closure for bluefin tuna discards, or in the offshore waters in the Atlantic Ocean off the northeastern United States are not warranted at this time. NMFS will continue to monitor the pelagic longline fleet throughout its range and will take appropriate action if necessary through the proposed and final rule process to reconfigure closures. In addition, as required by the BO, NMFS will consider measures to reduce and monitor interactions with sea turtles, particularly in the pelagic longline fishing grounds on the Grand Banks. Such measures may include area closures.

*Comment 7:* NMFS should close areas to both commercial and recreational pelagic fishing. NMFS should consider closing areas to recreational rod and reel fishermen, particularly to protect small bluefin tuna.

*Response:* NMFS disagrees. The closures included in the final rule address the requirements of national standard 9, while minimizing, to the extent practicable, the significant economic impacts that will be experienced by this fishery, as required by national standard 8. Monitoring programs in place do not identify the recreational fishery as a source of excessive bycatch. In fact, NMFS established a catch-and-release fishery management program in the Billfish Amendment in recognition of the operational patterns of the recreational

fishery to encourage further catch and release of Atlantic billfish. However, NMFS continues to address both monitoring of the recreational fishery and any bycatch mortality that does occur. At this time, NMFS encourages recreational fishermen to increase survival of released fish through the use of dehooking devices, circle hooks, and other gear modifications that may reduce stress on the hooked fish. Further, depending upon the availability of funding, NMFS will offer educational workshops in order to reduce bycatch in the recreational fishery.

*Comment 8:* NMFS should consider "rolling closures" to spread the impacts throughout the region.

*Response:* NMFS considered and rejected rolling closures. The HMS and Billfish APs advised NMFS that rolling closures may not be effective. MFS conducted analyses to consider closures with varying spatial limitations on a seasonal basis along the southeastern U.S. Atlantic coast; however, none were as effective as the final action (see section 7 of the FSEIS). Economic impacts of the closures were minimized, to the extent practicable, in light of the objectives of the conservation measures.

*Comment 9:* NMFS should use oceanographic conditions to define the size, shape, and timing of area closures.

*Response:* NMFS agrees that many life history characteristics of HMS are driven by oceanographic conditions, including the strength of the Gulf Stream in the Atlantic, the loop current in the Gulf, and the eddies that spin off these structures. By following long-term distributional patterns in establishing the temporal and spatial components of the closures, oceanographic conditions were indirectly utilized in defining and evaluating the effectiveness of the time/area closures. The sizes of the closures around the Charleston Bump and DeSoto Canyon are examples of how NMFS accounted for variations in the current patterns to establish the closed area boundaries.

*Comment 10:* NMFS should alter the closed areas to be consistent with Congressional proposals.

*Response:* NMFS disagrees. The objectives of the legislative proposals are not identical with those of this action. This final rule reflects the four objectives stated in the proposed rule: (1) maximize the reduction of finfish bycatch; (2) minimize the reduction in target catch of swordfish and other species; (3) consider impacts on the incidental catch of other species to minimize or reduce incidental catch levels; and (4) optimize survival of bycatch and incidental catch species.



NMFS has reviewed the various legislative proposals and provided, in testimony before Congress, an analysis of the relative effectiveness of the closures following the methods outlined in the FSEIS. In addition to bycatch reduction, the legislative actions also consider gear interactions and economic mitigation through a buyout program, which are beyond the scope of this rulemaking.

*Comment 11:* The closures proposed by NMFS ignore an historically high area of swordfish discards and nursery grounds in the DeSoto Canyon in the northeastern Gulf of Mexico.

*Response:* NMFS agrees and is closing an area in the northeastern Gulf of Mexico that includes the DeSoto Canyon. In the draft Technical Memorandum issued with the proposed rule, NMFS had evaluated the closure of a larger area in the Gulf of Mexico (area Bill D) that included the DeSoto Canyon. However, the primary objective for closures in the Gulf of Mexico in the proposed rule was to reduce billfish discards in the western Gulf of Mexico. In responding to comments on the use of live bait, NMFS noted in the FSEIS (see section 7.2) that the higher discards in the western Gulf were a likely result of fishing practices rather than a reflection of relatively higher abundance. Historically, catches of small swordfish were high in the DeSoto Canyon area; however there has been considerably less effort in this area in recent years, which is likely a reflection of the stricter minimum size limit for swordfish with no tolerance. Further rationale for the northeastern Gulf of Mexico closure is to prevent additional effort in this area by pelagic longline fishermen displaced from the southeastern U.S. Atlantic coast closures, which could negate the effectiveness of East Florida Coast and Charleston Bump closures in reducing swordfish discards.

*Comment 12:* NMFS should reconsider the proposed closed areas because the increase in the bycatch of blue marlin, white marlin, and large coastal sharks is not "worth" the decrease in swordfish bycatch expected to result from the proposed closed areas.

*Response:* The effort redistribution model used in the DSEIS and FSEIS is based on the assumption that all effort in the closed areas is randomly distributed throughout the remaining open areas and, as such, offers an estimation of the "worst-case scenario" from a biological perspective. This model estimates that discards of blue marlin could increase by 6.6 percent and white marlin by 10.8 percent. Blue marlin bycatch rates may be over-

estimated by the effort redistribution model because the model estimated bycatch rates by assuming random or constant catch-per-unit-effort in all remaining open areas. This estimation procedure could skew results for certain species if those species are concentrated in certain areas, instead of being randomly distributed over the entire open area (see section 7 and appendix C of the FSEIS for full description of analytical procedures). Pelagic longline effort in the Caribbean (fishing areas below 22° N. latitude) represents approximately 14 percent of the total U.S. Atlantic-wide fishing effort, but accounts for over half of the total blue marlin discards by U.S. pelagic longline vessels. These areas were not considered for closure since they are generally located outside U.S. EEZ waters. Therefore, it is likely that the no-effort redistribution model would be more applicable for blue marlin (12 percent reduction in discards). White marlin discards were less concentrated in the Caribbean (32 percent of total Atlantic-wide levels) and did not show any identifiable patterns, particularly after the live bait effects were removed from the catch patterns. Therefore, the effort redistribution model (11 percent increase in white marlin discards) is probably more applicable in this case, indicating that white marlin discards are problematic and will need to be closely monitored. The prohibition of live bait in the Gulf will potentially further reduce Atlantic-wide discard levels of blue marlin and white marlin by approximately 3 percent and sailfish by 15 percent. Because large coastal sharks are overfished, management efforts that reduce discards (33.3 percent under the effort redistribution model) are likely to be beneficial to stock recovery and, in that regard, meet the objectives of the final rule.

*Comment 13:* The closures included in the proposed rule will not be effective in rebuilding overfished HMS stocks unless huge areas of the Atlantic Ocean outside the U.S. EEZ are also closed.

*Response:* National standard 9 requires FMPs to take actions to minimize bycatch to the extent practicable. The management actions included in the final rule have been formulated to meet the bycatch reduction directive of national standard 9, consistent with the requirements of other national standards for FMPs. To the extent that reducing bycatch and bycatch mortality impacts juvenile and reproductive HMS populations, the final actions may augment rebuilding programs for the overfished HMS stocks. While NMFS agrees that unilateral

management action by the United States cannot rebuild overfished HMS stocks, the United States has been a leader in conservation of HMS resources and has taken many management actions (e.g., the time/area closures) to show the international forum our willingness to take the critical steps necessary to conserve these stocks. U.S. leadership has been used as a primary negotiation tool at ICCAT. The swordfish rebuilding program adopted by ICCAT in 1999 was based in large part on the rebuilding plan outlined in the HMS FMP. To the extent that the United States can use time/area closures and other bycatch reduction management strategies to convince other ICCAT member entities that bycatch can be minimized, the actions contained in the final rule may have a significant impact on Atlantic-wide rebuilding of overfished HMS stocks.

*Comment 14:* The entire Gulf of Mexico should be closed to pelagic longline fishing.

*Response:* NMFS disagrees that closure of the entire Gulf of Mexico to pelagic longline fishing is warranted. The proposed closure of the western Gulf of Mexico was predicated on the relatively higher billfish discards associated with the pelagic longline fishery operating in that area. Additional information and analyses obtained by NMFS subsequent to the publication of the DSEIS and proposed rule on December 15, 1999, indicate that prohibition of live bait could reduce blue and white marlin discards in the Gulf of Mexico by approximately 10 to 20 percent, and sailfish discards by 45 percent, depending upon the analytical procedure used. Closure of the DeSoto Canyon area in the northeastern Gulf of Mexico, although only a third the size of the western Gulf of Mexico closure (32,800 square miles versus 96,500 square miles), will provide a greater benefit in the reduction of swordfish discards (4 percent reduction Atlantic-wide versus a 3.1-percent increase under the effort redistribution model) and will prevent vessels displaced from the southeastern U.S. Atlantic coastal closures from fishing in an area with an historically high rate of swordfish discards. The cumulative benefits of the northeastern Gulf closure and live bait prohibition meet the objectives of the final rule by providing a reasonable alternative to reduce bycatch rates, while minimizing economic and social impacts throughout the Gulf of Mexico.

*Comment 15:* NMFS has already closed too many areas to commercial fishing. The proposed closures will eventually lead to total closure of the



entire Atlantic region to commercial fishing.

*Response:* NMFS disagrees that the final rule closures will lead to elimination of the commercial pelagic longline fishery. However, NMFS agrees that use of time/area closures as a fishery management tool must involve careful consideration of the impact of Agency action on all components of both the commercial and recreational fisheries. Implementation of practicable conservation measures that meet Magnuson-Stevens Act directives is the overarching objective of the Agency. To that end, NMFS has reduced the spatial and temporal constraints of the proposed closures and included a gear modification (prohibition of live bait) to help mitigate the economic and social concerns expected to result from the actions originally proposed.

*Comment 16:* Closure of the DeSoto Canyon area, in addition to the western Gulf closure, will displace vessels into the Atlantic and/or Caribbean, which will negate the conservation measures associated with the closures.

*Response:* NMFS disagrees because the effort redistribution model assumes that effort is displaced randomly throughout the remaining open areas. Therefore, the conservation benefits associated with the final action closures account for movement of effort into the Caribbean, Mid-Atlantic Bight, or any other open area. Further, since the final rule does not close the western Gulf of Mexico, it is likely that the limited fishing effort currently expended within the DeSoto Canyon closure area (approximately one-third the size of the proposed Gulf closure) will be dispersed largely within the Gulf of Mexico.

*Comment 17:* The proposed time/area closures are unjust, unnecessary, and inequitable and, as such, will result in further lawsuits against NMFS.

*Response:* National standard 9 of the Magnuson-Stevens Act requires that NMFS take action to reduce bycatch to the extent practicable. The use of time/area closures is a practicable means of reducing bycatch of HMS resources while considering the economic concerns of participants in the pelagic longline fishery who target these overfished, international fishery resources. The IRFA, RIR, and other components of the DSEIS clearly identified the significant economic, social, and community impacts associated with the proposed time/area closures. NMFS selected conservation measures in the final rule that meet the directives of the Magnuson-Stevens Act, while being mindful of the requirements of national standard 8 to minimize negative economic, social, and

community impacts, to the extent practicable.

*Comment 18:* The DeSoto Canyon closure is needed to protect a swordfish nursery area, but it needs to be larger to be more effective.

*Response:* NMFS agrees that the DeSoto Canyon area is an area with an historically high ratio of swordfish discarded to swordfish kept. NMFS does not agree that additional closed areas are warranted at this time. The analysis undertaken for the FSEIS included catch history from the entire northeastern Gulf of Mexico, east of the Mississippi River, and north of 26° N. latitude (general location of the U.S. EEZ). Although effort has been declining around DeSoto Canyon in recent years, NMFS has selected this area for a closure to prevent further effort from being expended in this area, either by displaced effort from the Atlantic or by vessels shifting operations from other areas of the Gulf of Mexico.

*Comment 19:* NMFS should have considered closures in the Caribbean, including the EEZ around Puerto Rico and the U.S. Virgin Islands, to protect spawning populations of swordfish and billfish.

*Response:* Closed areas in the Caribbean were considered. However, as discussed in the DSEIS and FSEIS, closures were generally limited to U.S. EEZ waters where they would have maximum impact on all pelagic longline fishing effort. NMFS agrees that the Caribbean waters support important HMS spawning and nursery areas as identified in the essential fish habitat components of the HMS FMP and the Billfish FMP Amendment. Pelagic longline effort in the Caribbean (fishing areas below 22° N. latitude) by U.S. flagged vessels is very effective in targeting swordfish with relatively low discard rates (approximately 6.7 fish kept to 1 discarded, as compared to an average 0.9 swordfish kept to 1 discarded in the DeSoto Canyon area). Conversely, the U.S. pelagic longline effort in the Caribbean represents approximately 14 percent of the total U.S. Atlantic-wide fishing effort, but accounts for over half of the total blue marlin discards by U.S. pelagic longline vessels. NMFS did not select a closure in the Caribbean area because of the extensive range of the fishing effort in the Caribbean, which occurs mainly in international waters. In addition, the configuration of the EEZ around both Puerto Rico and the U.S. Virgin Islands would make closures relatively ineffective.

*Comment 20:* NMFS should close the DeSoto Canyon area in addition to, not

in place of, the proposed western Gulf of Mexico closure.

*Response:* NMFS agrees that the DeSoto Canyon should be closed year-round to reduce swordfish discards and prevent an increase in fishing pressure in this area as a result of displaced effort from the East Florida Coast closure. However, NMFS does not agree that the proposed western Gulf of Mexico closure (March to September) is also warranted at this time. The final rule includes a prohibition on the use of live bait on pelagic longline gear in the Gulf of Mexico. Analysis of this alternative indicates that prohibiting the use of live bait is likely to be as effective in reducing sailfin discards as the western Gulf closure, and about half as effective in reducing marlin discards. However, in consideration of the magnitude of U.S. billfish discards relative to Atlantic-wide levels and the extent of the economic, social, and community impacts associated with the proposed western Gulf closure, modifying fishing practices is a reasonable alternative that effectively accomplishes the objective of reducing billfish bycatch, to the extent practicable, while allowing fishing to continue in the western Gulf of Mexico.

*Comment 21:* There is no reason for NMFS to close the DeSoto Canyon area to pelagic longline gear.

*Response:* NMFS disagrees. The rationale for closing the DeSoto Canyon area year-round to pelagic longline fishing is twofold. The first is to prohibit fishing in an area with an historically low ratio of swordfish kept to number of undersized swordfish discarded, which over the period of 1993 to 1998 has averaged less than one swordfish kept to one swordfish discarded. The second is to prevent further increases in swordfish discards as a result of effort displacement into this area from the Florida East Coast year-round closure.

*Comment 22:* The closures included in the proposed rule are more effective than the measures contained in various bills being considered in Congress.

*Response:* There are several bills currently before Congress. It is difficult at this time to predict whether any of the bills will be enacted and, if a bill is enacted, what measures it will contain. The objectives of the legislative proposals are also different in some respects from those of NMFS' final action.

*Comment 23:* Although the original proposed rule and the additional DeSoto Canyon closed area may not be contrary to ICCAT recommendations, they violate sections of the Magnuson-Stevens and Atlantic Tunas Convention

Acts. The action is not being taken to comply with ICCAT recommendations.

*Response:* NMFS disagrees that the proposed and final rules violate the Magnuson-Stevens Act and ATCA. In fact, if NMFS failed to address the issues developed in the final action, the Agency would be in violation of Magnuson-Stevens Act directives related to national standard 9. Further, the 1999 ICCAT recommendation established a dead discard allowance that will require the United States to reduce swordfish discards by 25 percent from 1998 levels (i.e., 443 mt to 320 mt) during the 2000 fishing year; any discards in excess of the dead discard allowance will be taken off the following year's quota. The dead discard allowance is subsequently reduced to 240 mt in 2001, 160 mt in 2002, and 0 mt by 2004. Thus, consistent with the ICCAT recommendation, NMFS must take action to reduce swordfish dead discards.

#### *Gear Modifications*

*Comment 1:* NMFS needs to do gear research specifically for the Atlantic pelagic longline HMS fishery. Results from gear modification research on other fisheries may not have the same effectiveness when applied to the Atlantic pelagic longline fishery.

*Response:* NMFS agrees that research on gear modifications would be most helpful if conducted in the Atlantic pelagic longline fishery. In fact, several gear-based data collection and research programs have been specifically directed on the Atlantic HMS pelagic longline fisheries. One study is looking at whether gear modifications, such as circle hooks, can reduce bycatch mortality and whether they are cost-effective. Results are either inconclusive or too preliminary for application in this final rule. Funding is very limited at this time, so research results from other study areas are often applied to similar fisheries (e.g., western Pacific tuna longline and Gulf of Mexico tuna longline fishery).

*Comment 2:* NMFS should provide exempted fishing permits (EFPs) to research vessels in closed areas to investigate the effectiveness of gear modifications and fishing practices to reduce bycatch and incidental catch interaction with pelagic longline gear.

*Response:* NMFS agrees. Researchers must obtain a Scientific Research Permit (SRP) or EFP from NMFS to conduct research in a closed area with pelagic longline gear. A mechanism exists whereby NMFS can grant an SRP/EFP in order to obtain data (50 CFR 600.745). If a research team submits the required information, including a research plan,

NMFS would consider granting an SRP/EFP subject to the terms and requirements of the existing regulations.

*Comment 3:* NMFS received comments both supporting and opposing a regulation requiring the use of circle hooks in HMS fisheries. Comments include the following: Require them on commercial and/or recreational HMS vessels; do not require them; they are safer than regular hooks, and better, cheaper, and more effective than the DSEIS indicated.

*Response:* NMFS agrees that circle hooks are a promising tool that can be used in many hook and line fisheries to improve survival of hooked fish and turtles that must be released. NMFS has funded a study, now underway in the Azores, to evaluate the effectiveness of circle hooks on sea turtle interactions and survival. If analyses indicate that circle hooks are a cost-effective way to increase turtle survival, NMFS may issue regulations requiring the use of such gear. NMFS seeks the cooperation of all fishermen to explore the use of circle hooks as a means to reduce bycatch mortality, which is less expensive and may have less economic impact than other measures (e.g., more extensive time/area closures). Many recreational anglers have already switched to circle hooks, particularly when fishing with dead bait, with several recent articles in sportfishing magazines reporting on the value of using circle hooks to reduce hooking-related mortality levels. In certain fisheries, commercial fishermen have already adopted circle hooks as well, as there is evidence of increased catch rates for some target species (e.g., yellowfin tuna).

*Comment 4:* Some commenters noted that NMFS should prohibit the use of live bait in the pelagic longline fishery. Conversely, other commenters noted that, if NMFS prohibits live bait, fishermen will switch from targeting tuna to targeting swordfish. Since many pelagic longline fishermen operating in the Gulf of Mexico have incidental swordfish permits, this might result in increased discards of swordfish.

*Response:* NMFS agrees that live bait should be prohibited. Live bait is used for 13 percent (logbook data) to 21 percent (observer data) of all pelagic longline sets in the Gulf of Mexico. Logbook and observer data indicate that blue and white marlin discards occur approximately twice as frequently on hooks with live bait; sailfish are discarded four to five times more frequently when live bait is used. Live bait is generally used to target yellowfin tuna, although dead bait is used on the majority of pelagic longline sets.

Prohibiting live bait may lead to additional use of squid or other dead bait, which may be less effective than live bait in catching yellowfin tuna, but is a reasonable alternative to a closure of the western Gulf of Mexico as a means of reducing billfish bycatch. Some fishermen may switch from targeting tuna (daytime fishery) to targeting swordfish with dead bait, thereby increasing swordfish discards. However, fishing for swordfish with pelagic longline gear generally takes place during night-time hours and has an added expense and complexity with the use of light sticks. In anticipation of fishermen targeting swordfish in the Gulf of Mexico in reaction to this prohibition, NMFS has implemented a time/area closure in a known swordfish nursery area in the eastern Gulf of Mexico (DeSoto Canyon) in an attempt to avoid the increased catch rates of small swordfish there. Further, if longline fishermen holding an Incidental category swordfish permit experience increased swordfish catch rates, NMFS may need to reconsider the incidental catch limit and the allocation of swordfish quota to the directed fishery. Prohibiting the use of live bait could be just as effective in reducing sailfish discards (approximately 15 percent reduction from the Atlantic-wide U.S. totals during 1995 through 1998) as the western Gulf closure. Although the live bait prohibition would be somewhat less effective in reducing marlin bycatch discards than the March to September area closure (e.g., blue marlin: 3.3 percent vs. a 7.2-percent reduction under the displaced effort model), it is less costly and is a practical alternative to the western Gulf closure.

*Comment 5:* NMFS should implement other gear modifications (e.g., decreasing length of longline, decreasing soak time, and timing of sets).

*Response:* NMFS agrees that gear modifications could be effective at reducing bycatch. However, many of these measures are difficult to enforce or could be circumvented by altering fishing patterns (e.g., additional sets made or increased soak time to offset a shorter mainline), resulting in no bycatch reduction. NMFS continues to support research projects regarding effectiveness of gear modifications.

*Comment 6:* NMFS should allow the U.S. Atlantic pelagic longline fishery 1 year to voluntarily reduce bycatch with the use of self-imposed gear modifications.

*Response:* As a result of a 1999 ICCAT recommendation setting Atlantic-wide discard quotas, the United States must

immediately reduce swordfish discards during the 2000 fishing year to 320 mt. This will have to be a significant reduction from 1998, when a total of 443 mt of swordfish discards from the North Atlantic were reported by the United States. The ICCAT recommendation also incrementally reduces the dead discard allowance to zero by the 2004 fishing year. Any dead discards over the annual allowance will be taken off the following year's quota. Therefore, NMFS has determined that it is necessary to initiate mandatory bycatch reduction measures at this time.

*Comment 7:* NMFS should limit the soak times of pelagic longline gear to reduce the number of dead discards.

*Response:* NMFS evaluated an alternative in the FSEIS that would reduce pelagic longline soak time to 6 hours. The strategy would reduce the amount of time that pelagic longline gear could be deployed and thus reduce fishing effort (hours/hook) for each longline set. The current range of soak time for pelagic longline gear is 5 to 13 hours. This alternative was rejected based on the practicality of enforcement and the likelihood that fishermen would make two sets during a day, or otherwise extend a fishing trip to execute a similar level of effort/trip. Since most billfish hit a longline hook during setting or retrieving, requiring a measure that forced a greater frequency of hooks moving through the water column could increase billfish discards. However, limiting soak to reduce sea turtle takes will likely be considered in developing alternatives to address concerns raised in the BO.

#### *Environmental Justice*

*Comment 1:* The proposed closed areas would disproportionately affect African-Americans in South Carolina, Vietnamese-Americans in the states bordering the Gulf of Mexico, and low-income crew members.

*Response:* NMFS considered environmental justice concerns as required by E.O. 12898 in selecting the preferred actions of the final rule. By minimizing the size of the closure in the Gulf of Mexico through prohibiting the use of live bait and by shortening the closed season for the Charleston Bump area, NMFS expects that the economic and social effects of the closures on minority groups and all other components of the pelagic longline fishing community will be minimized to the extent practicable.

#### *Protected Species*

*Comment 1:* NMFS should re-designate the longline fishery from a Category I to a Category II fishery under

the MMPA because the fishery bycatch meets the criteria for a Category II designation.

*Response:* NMFS classifies fisheries on an annual basis. Classification criteria consist of a two-tiered, stock-specific approach that first addresses the total impact of all fisheries on each marine mammal stock, and then addresses the impact of individual fisheries on each stock. NMFS bases its classification of commercial fisheries on a variety of different types of information. The best source of information concerning the level of fishery-specific marine mammal incidental serious injury and mortality is the fishery observer program. If observer data are not available, NMFS may use fishermen's reports submitted per the requirements of the Marine Mammal Authorization Program since 1996 (or the Marine Mammal Exemption Program from 1989 to 1995), stranding data, data from other monitoring programs, and other sources of information. The Atlantic pelagic longline fishery has been monitored with about 2 to 5 percent observer coverage, in terms of sets observed, since 1992. The 1992–1997 estimated take was based on an analysis of the observed incidental take and self-reported incidental take and effort data. The 1998 stock assessment reports, which were used for the 1999 List of Fisheries, included data which placed the pelagic longline fishery into Category I. NMFS will reevaluate categories in developing the 2001 List of Fisheries. However, NMFS anticipates using serious injury data, which would likely cause the pelagic longline fishery to remain in Category I.

*Comment 2:* NMFS should be more concerned about fishermen than about sea turtles.

*Response:* NMFS is concerned about achieving conservation benefits of the final rule while at the same time minimizing expected economic impacts on fishermen and related businesses, to the extent practicable. However, NMFS also must be in compliance with the Endangered Species Act, which requires NMFS to take appropriate actions to protect endangered or threatened species (e.g., sea turtles). The final rule includes reasonable actions that meet requirements of the Magnuson-Stevens Act and ATCA (as it applies to swordfish discards) to reduce bycatch and seek long-term rebuilding of overfished HMS stocks, while balancing economic and social impacts. Even so, it is clear that the final actions will have significant social and economic impacts on various components of the pelagic longline communities. NMFS recognizes

those impacts and has noted possible sources of economic relief (see section 8.0 of FSEIS).

*Comment 3:* The projected increase in turtle takes as a result of the proposed closures (under the redistribution of effort model) is not likely because many boats are not capable of redistributing their longline effort to the Grand Banks.

*Response:* NMFS agrees that turtle bycatch rates may be over-estimated by the effort redistribution model because estimation of catch-per-unit-effort in the remaining open areas could be skewed if species are concentrated in one area (such as sea turtles in the Grand Banks or blue marlin in the Caribbean; see FSEIS for further information), rather than randomly distributed over the entire open area. Although fishing in the Grand Banks area requires a relatively larger vessel than currently utilized in some of the closed areas (e.g., east Florida coast) for practical and safety reasons, it is possible that some boats could commence fishing on the Grand Banks or increase current effort in this area due to the closures in other areas, resulting in potential increases in turtle interactions. It is not known at this time how many vessels are expected to redistribute their effort to areas and times where turtle interactions are highest, but fishing activities will be continually monitored through the VMS program, as well as through logbooks and on-board observers. The anticipated takes for loggerheads and leatherback sea turtles for pelagic longline gear established by the incidental take statement were exceeded during 1999, as discussed in section 5.8 of the FSEIS. The June 30, 2000 BO contained jeopardy findings for both loggerhead and leatherback sea turtles. NMFS is initiating efforts to address this issue, including possible regulatory and non-regulatory actions.

#### *Dolphin/Wahoo Issue*

*Comment 1:* Comments were received that the mahi "loophole" undermines the effectiveness of the HMS time/area rule; Vessels using longline gear to target dolphin (mahi) should be prohibited from the HMS pelagic longline closed areas; NMFS should continue to work with the Councils to coordinate closed areas to reduce bycatch; If an exception is made for the closed area, HMS longline fishermen may move into the dolphin fishery.

*Response:* NMFS has notified the respective fishery management councils of the jurisdictional issues presented by vessels fishing with pelagic longline gear for species that are not directly managed by the Secretary of Commerce (e.g., dolphin). The South Atlantic

Fishery Management Council has prepared a Draft Dolphin and Wahoo Fishery Management Plan with a preferred alternative that would prohibit the use of pelagic longline gear for dolphin and wahoo in areas closed to such gear under HMS regulations. NMFS cannot predict whether HMS longline fishermen will move into the dolphin fishery, but it is unlikely that there would be a major shift in effort. Vessel operators may not fish with pelagic longline gear in closed areas if they hold an HMS permit; therefore, they would have to relinquish all HMS permits in order to do so. NMFS does not expect that longline fishermen would sell their swordfish and tuna permits in order to target dolphin for a seasonal fishery of limited size and duration.

*Comment 2:* NMFS should implement emergency regulations until the respective Councils can close the potential loophole posed by the longline fishery for dolphin.

*Response:* If the level of fishing effort targeting dolphin increases, it will most likely be due to factors other than the time/area closures implemented for bycatch reduction in the tuna/swordfish longline fisheries. It is unlikely that vessels affected by the HMS closures would give up HMS permits specifically to conduct a dolphin fishery. NMFS and the respective Councils can monitor effort, catch, and bycatch of non-HMS permitted longline fishermen targeting dolphin in the HMS closed areas and determine whether further action is required. The South Atlantic Fishery Management Council has already undertaken preliminary steps in preparing a proposed Dolphin and Wahoo FMP that includes parallel closures.

*Comment 3:* No billfish or swordfish are caught in the mahi fishery; NMFS should not shut down the mahi longline fishery; it has virtually no discards and the stock is healthy; NMFS needs to analyze the dolphin fishery more closely in evaluating the impacts of the pelagic longline time/area closure.

*Response:* Recognizing the jurisdictional issues, NMFS has asked the appropriate fishery management councils to examine management options guiding the use of pelagic longline gear to target dolphin. In the FSEIS, NMFS has included a more detailed discussion of the potential bycatch issues in the pelagic longline fishery for dolphin. Logbook reports from 1998 were examined for all sets made in the area from Key West, FL, to Wilmington Beach, NC. It was not possible to identify effort in the dolphin fishery with certainty, but sets were

separated into those targeting swordfish/tunas/sharks and those listing a target as "other." It was presumed that sets listing a target as "other" are predominantly targeting dolphin, and this was reflected in the nearly tenfold higher catch per set of dolphin. While swordfish and bluefin tuna discards were generally lower for the presumed dolphin sets, bycatch of billfish, sharks and bigeye, albacore, yellowfin, and skipjack (BAYS) tunas seems to be a concern. More specific information on catch occurring when pelagic longlines are set to target dolphin would be needed to confirm or refute the bycatch concerns. In the interim, to facilitate enforcement and to take a precautionary approach, NMFS has decided that HMS-permitted vessels should be prohibited from setting all pelagic longline gear in the closed areas, regardless of target species. It is possible that an operator of an HMS-permitted vessel who wishes to target dolphin could apply for an exempted fishing permit (EFP). If EFPs are issued, the data collected (e.g., logbook or observer reports) can be used to determine whether a dolphin fishery could be undertaken that would be consistent with the bycatch reduction objectives of the HMS FMP. However, such authorization for EFPs would have to be considered in consultation with the councils having management authority for dolphin.

#### *Redistribution of Effort*

*Comment 1:* More pelagic longline fishermen will relocate to open fishing areas than exit the fishery as a result of the time/area closures.

*Response:* To estimate the range of potential ecological impacts of the time/area closures, NMFS examined two scenarios for effort reallocation: (1) all effort in the closed area is removed from the system (worst-case alternative from the economic, social and community standpoint) and (2) all effort is randomly moved to available open areas (which may overestimate impact of effort if a species is not relatively uniformly distributed throughout the area—see discussion of sea turtle and blue marlin distribution in the FSEIS). Available information is insufficient for NMFS to estimate the number of vessels that may decide to discontinue fishing or to determine where the remaining vessels will relocate. However, if total U.S. pelagic longline effort is reduced by vessels leaving this fishery, the estimates of the effectiveness of the time/area closures will be underestimated.

*Comment 2:* The NMFS western Gulf of Mexico proposed closure would force displacement of pelagic longline effort

into known bycatch areas, particularly the DeSoto Canyon area in the eastern Gulf of Mexico, resulting in net losses in conservation effectiveness of the time/area closures.

*Response:* NMFS agrees that this is a possibility. The areas selected in the proposed rule were based on areas and times when discard rates were relatively higher than those in other temporal/spatial alternatives ("hot spots"). The overriding objective for the proposed closure in the Gulf of Mexico was to reduce billfish discards. A relatively higher discard-per-unit-effort was noted for marlin and sailfish in the western Gulf of Mexico. In conducting the analyses for the proposed rule, NMFS also recognized that there were discards of swordfish in the eastern Gulf; however, there was a relatively lower occurrence of billfish discards, particularly blue and white marlin, in this eastern area. Therefore, in consideration of the fact that the western Gulf area also had discards of undersized swordfish, NMFS selected this area for closure in the proposed rule. Information that became available subsequent to the preparation of the proposed rule and consistent with public comments received has provided additional insight into the differential bycatch of billfish from pelagic longline sets using live bait, a fishing practice which has occurred mainly in the western Gulf of Mexico. NMFS anticipated that this fishing technique would be moved to the eastern Gulf of Mexico if the proposed closure were implemented, resulting in an increase in billfish bycatch in this area. The final rule incorporates a prohibition on the use of live bait on pelagic longline gear which will reduce billfish bycatch without the need for a closure in the western Gulf of Mexico. As a result, NMFS re-examined other areas in the Gulf of Mexico and is closing the DeSoto Canyon and a portion of the west Florida shelf based on the historically high ratio of swordfish discards to swordfish kept in these areas. Further, this action will prevent an expansion of displaced fishing effort into this area following closures along the southeastern U.S. Atlantic coast.

*Comment 3:* Displaced boats will re-flag to another country or sell their vessel and gear to ICCAT non-member countries in the Caribbean, or other areas, which will negate any gain in the reduction of billfish and undersized swordfish discards by U.S. commercial pelagic longline effort.

*Response:* It is possible that U.S. owners will decide to sell their vessel(s) to citizens of one of the Caribbean countries. NMFS has information that

indicates that many Caribbean nations (some which may not be members of ICCAT) are interested in expanding their fishing fleets for HMS. NMFS is involved with many United States initiatives regarding issues of illegal, unregulated and unreported (IUU) fishing, including those developed through ICCAT and FAO. The recent ICCAT restrictions on swordfish imports from Honduras and Belize are evidence of this international effort. ICCAT also continues to work with Caribbean nations to discuss allocation criteria for these nations, as well as adherence to ICCAT recommendations, which has been a source of concern.

*Comment 4:* The time/area closures will increase competition in the shark fishery because pelagic longline vessels will re-rig to undertake bottom longline fishing.

*Response:* NMFS disagrees. The shark fishery operates under a limited access permit system. Most pelagic longline vessels have qualified for limited access shark permits. The level of retention allowable under an incidental permit is not sufficient to support profitable operations focusing on shark resources. While some pelagic longliners have directed permits and it is possible that some fishermen could purchase a directed shark permit, the total number of directed permits is capped, and the shark fishery operates under a quota system; therefore total effort and relative competition between vessels should remain unchanged.

*Comment 5:* NMFS will force pelagic longline fishermen with small vessels to fish farther from shore, which could be unsafe during inclement weather. NMFS should consider safety-at-sea implications of the proposed closed areas.

*Response:* NMFS agrees that vessel safety is an important component to be considered in developing reasonable management measures, as required by national standard 10 of the Magnuson-Stevens Act. Some pelagic longline vessels historically operating in the areas being closed are not capable of safely fishing farther out to sea in the open areas due to their size. However, the vast majority of pelagic longline effort targeting swordfish and tuna occurs in deep waters, generally in waters with depths in excess of 500 fathoms (3000 feet), requiring a vessel of sufficient size to safely handle open ocean conditions. The final rule closures should not adversely impact most of these vessels in regard to seaworthiness, particularly with the removal of the western Gulf of Mexico closure and reducing the temporal restrictions of the Charleston Bump

closure. However, there is a fleet of small pelagic longline vessels that fish the deep waters found relatively close to shore along the east Florida coast. This area will be closed year-round because of the magnitude of reported swordfish and billfish discards. If these vessels are moved to open areas that require fishing at a greater distance from shore, NMFS encourages vessel operators to follow U.S. Coast Guard-approved operating procedures and to exercise caution in determining the safe operating range for their sizes and types of vessels.

*Comment 6:* Directed shark fishermen should be allowed to catch more sharks since bycatch of large coastal sharks in the pelagic longline fishery would be reduced with the time/area closures.

*Response:* NMFS disagrees. Shark resources in the United States are either overfished (large coastal sharks), fully fished (small coastal) or unknown (pelagic sharks). Each shark category has a set harvest level that encompasses catch from all fishing sources. Time/area closures may result in an increase in pelagic shark discards and landings of approximately 8 and 4 percent, respectively, under complete effort redistribution. Conversely, the number of large coastal sharks discarded and landed from pelagic longline gear will likely decrease by 33 and 18 percent, respectively, which may increase the duration of the large coastal shark fishing season. However, further increases in shark quotas are not warranted at this time.

*Comment 7:* The effort redistribution model included in the DSEIS predicts an increase in BAYS tuna landings, but the United States has agreed to limit effort in the yellowfin tuna fishery under an ICCAT agreement.

*Response:* While NMFS agrees that, under the effort redistribution model, BAYS tuna landings may increase (mainly as a result of increased yellowfin tuna catches), the ICCAT agreement limits U.S. yellowfin effort to 1993 levels. The catch levels predicted by the effort redistribution model are based on total effort redistribution and, as such, are likely to be an over-estimation of actual effort and catches under the final rule time/area closures. As a result of the HMS FMP, a limited access system is now in place for the tuna pelagic longline fishery, and a recreational limit of three yellowfin tuna per person per trip was also implemented. Commercial yellowfin tuna landings in 1993 were 4,386 mt, while more recently (1996 to 1998), landings have averaged approximately 3,525 mt. The nearly 10 percent increase in BAYS landings predicted by the displaced effort model would increase

average annual landings to only 3,700 to 3,800 mt, without an overall increase in effort.

*Comment 8:* Fishermen can and will fish in closed areas with other types of fishing gear.

*Response:* In the FSEIS, NMFS analyzed the potential impacts of fishermen changing target species through redistributing effort to other fisheries in which the vessel already may be active, or pursuing new fisheries by purchasing permits, as necessary. The South Atlantic Fishery Management Council is currently holding public hearings on a proposed dolphin/wahoo FMP that includes a preferred alternative that would prohibit pelagic longline fishing for dolphin and wahoo within the spatial and temporal constraints of closures for the HMS pelagic longline fishery. This could reduce effort redistribution from HMS to the dolphin and wahoo fisheries.

*Comment 9:* If Agency actions force fishermen to fish in areas with high turtle interactions, then the Agency is responsible for any increase in take, not fishermen.

*Response:* NMFS disagrees. The final time/area closures along the southeastern U.S. Atlantic coast were temporally and spatially reconfigured to mitigate, to the extent practicable, the impact of effort redistribution on sea turtle interactions. Turtle bycatch rates may be over-estimated by the effort redistribution model because estimation of catch-per-unit-effort in the remaining open areas could be skewed if species are concentrated more in one area (like sea turtles in the Grand Banks) rather than randomly distributed over the entire open area. NMFS will continue to monitor the fishery after implementation of the final rule. As a result of the jeopardy findings for loggerhead and leatherback sea turtles, NMFS will issue additional regulations that may include further modifications to gear and/or fishing methods, closed or limited fishing areas, and expanded monitoring (see section 5.8 of the FSEIS).

*Comment 10:* The majority of directed swordfish and tuna pelagic longline fishermen are not active in other commercial fisheries.

*Response:* NMFS disagrees. Of the 329 fishermen with swordfish limited access permits who held valid permits as of May 9, 2000, approximately half held only HMS limited access permits. The other fishermen held a range of permits including king mackerel, Spanish mackerel, golden crab, reef fish, red snapper (both Class 1 and Class 2 licences), rock shrimp, snapper-grouper, and spiny lobster. In addition, some of

the vessel permit holders held permits in fisheries that are managed by the Northeast Regional Office.

*Comment 11:* The closure will have unknown benefits because reallocation of effort will change the catch composition.

*Response:* NMFS examined a range of impacts of effort reallocation, including removal of all effort from closed areas to redistributing all effort to available open areas. While the models used by NMFS provide estimates of potential increases or decreases in catch and discards, NMFS agrees that a full, quantitative assessment of effort reallocation cannot be made until the closures are implemented and fishermen develop new fishing patterns. However, the closures implemented through the final rule will significantly reduce impacts on the level of discards from the U.S. pelagic longline fishery in the U.S. EEZ, which was the goal of the action. NMFS will monitor vessel activity through the use of VMS, observers, logbooks, and dealer reports.

*Comment 12:* The time/area closures will force vessels to increase effort and/or move into other South Atlantic fisheries for which they hold permits. Boats will move into the bottom longline fishery and catch grouper, snapper, and tilefish or shift to other pelagic longline fisheries, like dolphin and wahoo, in either the impacted closed areas or other locations along the Atlantic coast.

*Response:* NMFS agrees that some vessels will likely expend effort in other fisheries. Although some pelagic longline fishermen who homeport their vessels in the closed areas have other permits (e.g., coastal migratory pelagics, snapper-grouper, charter vessels), many have only directed or incidental swordfish, shark and tuna permits. Most of the southeastern fisheries require Federal permits, some of which are issued under limited access programs. Limited access permits may not be available, which may limit the ability of displaced pelagic longline fishermen to target other species. Other vessels may move into other activities consistent with their fishing experience (e.g., recreational charter fishing). The dolphin and wahoo fishery resources are not under the direct management jurisdiction of the Secretary of Commerce. However, the Agency agrees that some pelagic longline effort may be directed toward dolphin and wahoo. The South Atlantic Fishery Management Council has prepared a proposed dolphin/wahoo FMP that includes a preferred alternative prohibiting pelagic longline fishing for dolphin and wahoo within the spatial and temporal

constraints of closures for the HMS pelagic longline fishery. The FSEIS provides an analysis of potential impacts of alternative fishing activity by displaced HMS pelagic longline vessels.

#### *Analysis of Ecological Benefits of Closures*

*Comment 1:* The DSEIS indicated that the proposed time/area closures would have a huge reduction in bluefin tuna discards, but reducing bluefin tuna bycatch is not listed as an objective of the Agency action.

*Response:* NMFS disagrees that reduction of bluefin tuna discards was not included as an objective of the proposed Agency action, which had four clear objectives: Maximize the reduction of finfish bycatch (which includes bluefin tuna); minimize the reduction in the target catch of swordfish and other species; ensure the incidental catch of other species remains unchanged or is reduced; and optimize the survival of released animals. Analysis of time/area closure effectiveness used for the proposed rule encompassed all closures for HMS, including the annual northeastern U.S. pelagic longline closure during June developed specifically to reduce bluefin tuna discards that was part of the final rule implementing the HMS FMP. Closures included in the final rule are listed by species and area to clarify the cumulative impacts for each spatial component. Bluefin tuna discards increased by 11 percent when pelagic longline effort was randomly redistributed throughout the operational range of the U.S. Atlantic pelagic longline fishery as a result of the East Florida Coast and Charleston Bump closures; however, when combined with the June closure already in place, the net effect on bluefin tuna is a 39-percent reduction in discards.

*Comment 2:* The Agency should have considered a more expansive scientific information baseline for evaluation of potential closures, including scientifically peer-reviewed literature prior to the 1995 to 1997 information included in the DSEIS, as well as more updated and/or near real-time data sources (e.g., satellite data).

*Response:* In preparing the FSEIS, the Agency expanded the data analyses to include logbook information from 1993 to 1998. These data provide further support for the temporal and spatial components of the time/area closures of the final rule. Historical scientific studies describing movement behavior of HMS, as well as oceanographic studies of current and water mass patterns were also reviewed in preparing the FSEIS. Setting closures or

other fishing activities based on near real-time satellite information on water or current patterns may be considered in future management actions, particularly in conjunction with the communication capabilities of the VMS systems required for all pelagic longline fishing vessels beginning September 1, 2000.

Recent scientific studies on the relationship between billfish discard rates relative to use of live and dead bait on pelagic longline gear were also used.

*Comment 3:* The evaluation of closed areas should be based on the ratio of catch to bycatch instead of absolute numbers of bycatch.

*Response:* NMFS agrees that the ratio of catch to bycatch should be used in evaluating which areas to close, but disagrees that the absolute numbers of bycatch should not be considered. In developing the final area closures, NMFS examined, where appropriate, the temporal and spatial variations of the ratio of bycatch to target catch, the absolute numbers of bycatch and target catch, and relative fishing effort. For example, an area that has a high discard to number kept ratio may be indicative of a problem area, depending upon the relative volume of fishing effort that is currently or historically conducted in the area. Conversely, an area that has a relatively high absolute number of discards but a low ratio of discards to number of fish kept would be evaluated based on the relative fishing effort in the area. The analytical methods are fully described in the DSEIS, and clarified, where appropriate, in the FSEIS.

*Comment 4:* A target bycatch threshold should be developed to allow for a tracking of the success of Agency actions.

*Response:* NMFS disagrees. The development of the proposed and final rules clearly follows a multispecies management approach, and as such, it is inappropriate to set target reductions for specific species without considering the impact on the remaining portion of the catch composition. For example, if the time/area closures were simply based on reducing swordfish discards by a set percentage, this could disproportionately increase the level of bycatch, bycatch mortality, and/or incidental catch of other species. The four overarching objectives discussed in the DSEIS and FSEIS guided the Agency throughout the development of the proposed and final actions.

*Comment 5:* NMFS should investigate the effectiveness of the pelagic longline closure in the Pacific Ocean to evaluate potential impacts of closures along the U.S. Atlantic coast.

*Response:* NMFS agrees that all similar closures should be evaluated to

determine potential biological, social, and economic impacts of final Agency actions. The closure of nearly 1 million square miles of Pacific Ocean near Hawaii to pelagic longline fishing vessels has been in effect since December 23, 1999; therefore, information on the impacts is limited at this time.

*Comment 6:* Observer data should be used to evaluate accuracy of the logbook reports used in the NMFS time/area analyses.

*Response:* NMFS agrees that observer coverage is needed to ground-truth information provided in the mandatory logbook program. The Draft Technical Memorandum, included as part of the DSEIS, provides a discussion of the limitations of logbook data and explains the rationale for using these data. The Atlantic pelagic longline fishery has been monitored with about 2 to 5 percent observer coverage, in terms of sets observed since 1992, and is used to ground-truth the mandatory logbook data, and to provide specific biological information (e.g., tagging, obtaining tissue samples for genetic work). The observer information was used in developing the prohibition on the use of live bait.

*Comment 7:* The analyses of the time/area closures are flawed because of the dependence upon mis-reported information in the mandatory logbooks.

*Response:* NMFS disagrees that the analyses are flawed. While NMFS recognizes that there are limitations and constraints in the use of logbook information as discussed in the Draft Technical Memorandum and HMS FMP, these data undergo thorough review by NMFS scientists and can be used to identify catch trends and patterns over time. Also, if logbooks under-report bycatch as indicated in public comment, then the benefits of the time/area closures are even greater than predicted in the FSEIS.

*Comment 8:* Use of percentages in the analyses make it difficult to assess benefits of the time/area closures.

*Response:* To allow for valid analysis of temporal and spatial variations in closure effectiveness on a suite of target species and bycatch, it was necessary to have a common denominator for all comparisons. The total U.S. Atlantic catch, by year and species, was used for this purpose, and was provided in tabular form in the DSEIS. The percentages provided in the analyses can easily be converted to number by multiplying the percentage value by the appropriate annual total (landings and discards were considered as separate groups). In the FSEIS, NMFS further clarifies the use of percentages,

numerical values, and ratios of numbers caught to numbers discarded.

*Comment 9:* NMFS should not lump all BAYS together in the analysis of the time/area closures. Each tuna species should be separately analyzed, particularly for yellowfin tuna.

*Response:* NMFS agrees that it is important to separate out the impact of the time/area closures on the various species of the BAYS tuna complex. Atlantic-wide, yellowfin tuna and bigeye tuna represent over 91 percent of the U.S. pelagic longline fleet catch of BAYS tunas (YFT—70.4 percent and bigeye tuna—20.8 percent). In the Gulf of Mexico, the 99.1 percent of the BAYS harvested from the proposed western Gulf closed area consisted of yellowfin tuna; in the final rule closure of DeSoto Canyon, yellowfin make up 98.4 percent of the BAYS complex. The BAYS tunas in the closure of the southeastern U.S. Atlantic coast consist of 89.5 percent yellowfin tuna and 7.5 percent bigeye tuna. The potential changes in landings of yellowfin tuna, bigeye tuna, the aggregate BAYS complex, and bluefin tuna are summarized for each final action under the effort redistribution and no effort redistribution models described in the FSEIS.

*Comment 10:* NMFS should summarize the impacts of the time/area closures separately for the Gulf of Mexico and southeastern U.S. Atlantic coastal closures.

*Response:* NMFS agrees. Ecological and economic impacts may be better understood if summarized both separately and in combination, and, to that end, this presentation approach is taken in the FSEIS. Although the DSEIS combined the ecological impacts for the Gulf of Mexico and southeastern U.S. Atlantic coastal closures under the discussion of each alternative, the draft Technical Memorandum provided results of the no effort redistribution and effort redistribution models separately for each closure area.

*Comment 11:* NMFS should consider incorporating tagging data into the time/area analysis procedures.

*Response:* NMFS agrees that information from tagging studies of billfish, tunas, sharks, and other species released by recreational and commercial fishermen provides valuable data on the range and movement patterns of these species and, as such were included in the qualitative procedures used to identify general areas for potential closure.

*Comment 12:* The proposed Agency action is focused only on reducing swordfish discards, and does not consider the impacts on vessels.

*Response:* NMFS disagrees. The evaluation of the time/area closure fishery management strategy in the DSEIS and FSEIS followed a multi-species approach. Consistent with the objectives, patterns in the discards, bycatch and incidental catches of billfish, sea turtles, bluefin tuna, pelagic and large coastal sharks, and other overfished HMS were used to define time/area closures. The areas selected for closure in the final rule also seek to minimize the target catch of swordfish, tuna, dolphin, and other species and, thus, minimize the economic impacts on vessel owners. The evaluation of the impacts of the closures included all components of the pelagic longline catch, as well as those of dealers within the time/area closure locations.

#### *Mitigation of Economic Impacts*

*Comment 1:* NMFS should provide economic compensation for the displaced vessels and dealers who are negatively impacted from the closed areas (various vessel buyout schemes were suggested ranging from recreational permit fees to having the remaining commercial fishermen compensate those who go out of business; other schemes included employing all displaced longline fishermen in fish hatcheries). While vessel owners can sell their permits and receive some compensation, dealers cannot. NMFS should provide resources for retraining or education of displaced longline fishermen.

*Response:* NMFS recognizes that the time/area closures will adversely affect many vessels and dealers, and that the ripple effects of the closures will go beyond the immediate community of fishermen, and affect fishing families, associated businesses, and the larger coastal economy. NMFS also recognizes that the Magnuson-Stevens Act requirements to rebuild overfished fisheries and reduce bycatch are going to result in economic hardships—even closure of some businesses. Once the stocks are rebuilt, it may still not be possible for all the affected individuals to make a living because many fisheries are currently overcapitalized. NMFS has made a concerted effort to identify possible sources of economic relief for individuals and businesses affected by the regulatory measures in this rule. Some government agencies, such as the Small Business Administration, the Economic Development Administration, the Farm Credit System, the U.S. Department of Labor's Economic Dislocation and Worker Adjustment Assistance Act, may provide fishing industry participants with loans, training for new jobs, and/or grants for



economically stressed communities, and the Fisheries Finance Program could support an industry-sponsored vessel buyback. A summary of the types of buyback programs, loans, and government agencies that may be able to help are listed in section 3 of the FSEIS.

*Comment 2:* NMFS needs to consider other alternatives that might have fewer and lesser adverse economic impacts.

*Response:* In developing this final rule, NMFS considered and adopted a variety of options that minimize bycatch and bycatch mortality, achieve the same conservation goals, and mitigate the rule's economic impact. These options include smaller closed areas and/or shorter closed periods than were proposed. In addition, the final rule substitutes a prohibition on the use of live bait in the Gulf of Mexico for the proposed closed area in the western Gulf. These alternatives are likely to have less of an adverse economic impact on fishermen and communities than the alternatives in the proposed rule.

*Comment 3:* NMFS received a number of comments regarding permit buyouts, including the following: NMFS should buy out displaced longline vessels; NMFS should not buy out displaced longline vessels; thousands of businesses fail every day and those businesses do not ask tax payers to buy them out; NMFS should destroy any longline vessels that are bought out; and, without a buyout, many companies will go out of business.

*Response:* This rule does not include a fishing capacity reduction program (buyback program); however, NMFS may implement a buyback program for this fishery if circumstances warrant. Any buyback program will be implemented in accordance with the Magnuson-Stevens Act, NMFS fishing capacity reduction regulations, and other applicable law. Under section 312 of the Magnuson-Stevens Act, NMFS may implement buyback programs that purchase fishing permits from permit holders or, alternatively, it may implement buyback programs that restrict vessels from participating in other fisheries by requiring that they be scrapped or be subject to title restrictions. The buyback method selected will depend on particular circumstances present when such buyback program, if any, is implemented. Furthermore, NMFS has concluded that it does have the authority to initiate and implement buyback programs for fisheries under the direct management authority of the Secretary of Commerce. Regulations implementing section 312, published May 18, 2000 (65 FR 31444), provide that "for a fishery under the direct

management authority of the Secretary, NMFS may conduct a program on NMFS' own motion by fulfilling the requirements \* \* \* that reasonably apply to a program not initiated by a request." Because of the significant negative economic impacts expected with this final rule, NMFS has made a concerted effort to identify possible sources of economic relief for individuals and businesses affected by regulatory measures in fishery management. A summary of the types of buyback programs, loans, and government agencies that may be able to help are listed in Section 3 of the FSEIS.

*Comment 4:* This proposed rule may cause Congress to abandon the legislative buyout that has been under consideration.

*Response:* NMFS announced in the 1999 HMS FMP that the Agency was committed to reducing bycatch and bycatch mortality, as required in the Magnuson-Stevens Act, and would proceed with rulemaking to address bycatch concerns. NMFS cannot predict what this rulemaking may have on Congressional action.

*Comment 5:* NMFS should recognize that there are economic and competitive disadvantages to businesses geographically close to the proposed closed areas.

*Response:* NMFS agrees and is aware of the potentially significant economic impacts to related businesses, not just to fishermen. However, these areas were not chosen with respect to the impacts on a specific region but rather to target "hot spots" for pelagic longline bycatch. Because of the anticipated significant economic impacts, NMFS has selected alternatives that minimize those impacts while still maintaining conservation benefits similar to those in the proposed rule. In the Gulf of Mexico, NMFS chose to prohibit live bait in lieu of the large Western Gulf closure and has also implemented a smaller closed area that focuses on swordfish bycatch reduction. Although this area has a year-round closure, it is also located offshore so that smaller fishing vessels may still be able to fish. Thus, businesses near this closure may not be affected to the same extent as they would be if the area extended to the coast. In addition, as discussed earlier, NMFS has made a concerted effort to identify possible sources of economic relief for individuals and businesses affected by regulatory measures in fishery management.

*Comment 6:* NMFS should reconsider limiting the capacity of the Atlantic pelagic longline fleet. NMFS should not implement further regulations and instead should monitor the fishery

while giving the limited access program a chance to "settle." Limited access was an important first step that has not been given a chance to provide benefits.

*Response:* NMFS agrees that limiting access to the fishery is an important step. In July 1999, NMFS implemented limited access in the pelagic longline fleet. While it is true that limiting access to this fishery could provide an incentive for fishermen to reduce bycatch because they have an investment in the future of the fishery, NMFS has a mandate under the Magnuson-Stevens Act to minimize bycatch, to the extent practicable. In addition, the limited access program in place now was designed to reduce latent effort, not to reduce fishing effort. As a result, there is still excess capacity in this fishery. For example, of the 450 permit holders who qualified for a directed or incidental swordfish limited access permit, only 208 reported landings in the pelagic logbook in 1998. While other permit holders may be reporting landings in other logbooks, NMFS believes that many permit holders who do not fish regularly can still be bought out by fishermen who may be more active. Therefore, as announced in the HMS FMP and the 2000 SAFE report and in addition to this rule to reduce bycatch and bycatch mortality in the pelagic longline fishery, NMFS continues to monitor the status of this fishery and, if necessary, will work with the APs to consider additional steps to reduce fishing effort.

*Comment 7:* NMFS should make fishermen pay for an observer instead of VMS.

*Response:* NMFS agrees that a user fee system for funding observer coverage could be beneficial. However, a VMS program to track vessels in areas where bycatch is a concern has some advantages in that it costs less, is less intrusive, and has some vessel safety benefits. NMFS will continue to examine means of applying user fees in fisheries subject to observer coverage. In the interim, the Atlantic pelagic longline fishery VMS requirement is effective beginning September 1, 2000.

*Comment 8:* Minimizing bycatch through large area closures will result in greater overall economic benefits for all fishing industry sectors.

*Response:* NMFS agrees that minimizing bycatch enhances rebuilding of overfished stocks and, over the long term, should increase the economic benefits for all fishing sectors. However, in the short term, large area closures will force many small entities, such as fishermen and dealers, out of business. NMFS has chosen to close the areas that will provide the greatest

conservation and economic benefits in both the short and long terms. Because of the jeopardy finding for loggerhead and leatherback sea turtles, NMFS will propose additional measures to reduce the level of turtle takes. This could include a closure of the Grand Banks for the months of September through December, modifications in fishing methods, gear modifications, and increased monitoring activities.

*Comment 9:* Every effort should be made to mitigate the economic loss to commercial fishermen; however, given the current strong economy, there is ample opportunity for those disadvantaged by the closures to make a financial recovery.

*Response:* NMFS agrees that the economic loss to the commercial fishermen must be minimized as long as the conservation goals can still be achieved. Fishermen and others who lose their job or go out of business as a result of this rule may be able to relocate to either a different job altogether, or to a different job within the fishing industry. To aid displaced individuals, NMFS identified possible sources of economic relief for individuals and businesses affected by regulatory measures in fishery management. A summary of the types of loans and government agencies that may be able to help are listed in 3 of the FSEIS.

*Comment 10:* NMFS needs to consider actions to minimize economic impacts associated with moving families to areas that remain open to pelagic longline fishing.

*Response:* NMFS is aware that some families will need to move as a result of these regulations and that the cost of moving may be high. To examine more fully these impacts, NMFS published a **Federal Register** document (65 FR 24440) on April 26, 2000, asking specifically for comments on the impact of delaying the effective date to provide sufficient time to relocate. The comments received are discussed here. Also, as a result of these concerns, NMFS is delaying implementation of some of these regulations for different lengths of time.

*Comment 11:* The DeSoto Canyon closure is keyed to reducing swordfish discards and the analysis focuses on the social and economic impacts on the swordfish longline fishermen and their associated fishing communities. Other fisheries and fishing communities are likely to be affected by this closures and should be considered in the analysis.

*Response:* NMFS agrees that a variety of fisheries and fishing communities should be considered in undertaking efforts to minimize bycatch and bycatch mortality. As this final rule is directed

at the activities of only pelagic longline fishermen, the analyses focus on the impacts to the pelagic longline fishery and communities. As NMFS collects additional information on other fisheries (e.g., recreational, bottom longline), NMFS may determine that additional rulemakings are needed to reduce bycatch and bycatch mortality in those fisheries. If NMFS undertakes such rulemakings, it will conduct analyses to determine the impact of those rules.

*Comment 12:* Many comments were received about the effective date. These comments included the following: NMFS should do the right thing and insist that the closures not be reduced and that they be implemented no later than 30 days after publication of the final rule expected on August 1; The closures must be enacted immediately without any delay; Fishermen and related businesses would need at least one full year prior to implementation to move and resettle into other regions; If NMFS is not going to provide compensation, NMFS needs to delay implementation by at least 6 months to relocate entire businesses, find a new docking facility, relocate staff, find a new church, find new schools for children, and find a new house; The swordfish rebuilding measures implemented last November at ICCAT are risk-prone and have less than a 50-percent chance of rebuilding in 10 years. Given this, NMFS needs to implement these closures immediately to reduce pressure on the stock and increase the chance of sticking to the rebuilding schedule.

*Response:* NMFS agrees that fishermen and related businesses will need time to relocate in response to the closures in this final rule. NMFS disagrees that even a short delay of these regulations would hinder rebuilding or cause irreparable harm to the resource. Any dead swordfish discards that happen between the publication of the final rule and implementation will be taken off the U.S. swordfish dead discard allowance included in the rebuilding plan. Thus, NMFS has decided to delay the implementation of the closures: 90 days for the DeSoto Canyon area (November 1, 2000) and 180 days (February 1, 2001) for the East Florida Coast closure, which coincides with the annual date that the seasonal Charleston Bump closure begins. Thus, the closures in the Southeast Atlantic would begin at the same time, making the regulations less confusing and allow fishermen and related businesses approximately 6 months to relocate if they so decide. The implementation of the DeSoto Canyon

closure is not delayed for as long, because this closure is not as large an area as is the one the Atlantic and it is further offshore. Thus, fishermen who have fished pelagic longlines in the DeSoto Canyon area may be able to find alternative fishing sites within the Gulf of Mexico without having to relocate the home port of the vessel, and less time is necessary to prepare.

*Comment 13:* Unless NMFS undertook a detailed analysis of the behavior of longline fishermen and processing industry to investigate the impacts of delaying the effective date (costs, vessel's choice, etc.), any decision to delay implementation would be essentially arbitrary.

*Response:* NMFS disagrees. NMFS believes that commercial fishermen, dealers, and processors provided enough information in their comments on how long and why delayed implementation is needed for NMFS to make an informed decision.

*Comment 14:* NMFS asked the wrong question in regard to delayed implementation. The correct question is what approach would produce the highest net economic benefits, not what are the short-term gains.

*Response:* NMFS believes that asking the commercial fishing industry why they need delayed implementation and how long a delay it should be provides information needed for NMFS to decide the optimal approach. NMFS does not believe the highest net economic benefit would be achieved if all of the commercial fishermen were asked to move within 30 days. Instead, NMFS believes it could be more beneficial to the fishermen and the consumer if commercial industries were given time to relocate while still giving them time to fish during this season.

*Comment 15:* NMFS' entire approach on this rulemaking is fundamentally flawed because the Agency does not have the ability nor the authority to initiate an effort buyout program for Atlantic HMS.

*Response:* NMFS disagrees. NMFS announced in the HMS FMP that it was committed to reducing bycatch and bycatch mortality and would initiate rulemaking for time/area closures based on comments received during that rulemaking. NMFS has previously concluded (65 FR 31444, May 18, 2000) that section 312 of the Magnuson-Stevens Act provides authorization for the Atlantic HMS buyout "on NMFS' own motion by fulfilling the requirements \* \* \* that reasonably apply to a program not initiated by a request." While NMFS recognizes that a buyout program may provide some compensation for vessel owners, a

buyout program would not provide any compensation for other business owners. Instead, NMFS has explored other ways of minimizing economic impacts including smaller time/area closures, a prohibition on live bait, and delayed implementation.

*Comment 16:* Closing the DeSoto Canyon in addition to the western Gulf of Mexico would only increase any social and economic impacts to vessels and their support and supplier community-based infrastructures.

*Response:* NMFS agrees that closing both the proposed Gulf B area and the DeSoto Canyon would have even greater economic impacts than closing either one alone. In addition, preliminary analyses indicate that prohibiting live bait may have similar conservation benefits for billfish as closing the western Gulf of Mexico. For this reason, NMFS decided to close the DeSoto Canyon to minimize bycatch, particularly small swordfish, and prohibit live bait to minimize billfish bycatch.

*Comment 17:* The Vietnamese Americans who have settled in states bordering the Gulf of Mexico are especially vulnerable to social and cultural disruption since they are dependent upon commercial fishing as a traditional livelihood that provides stability.

*Response:* NMFS agrees that the Vietnamese American fishermen may be affected by the social and economic impacts of these regulations. However, NMFS mitigated impacts to the fishermen in these final regulations by deciding against closing the Western Gulf of Mexico and choosing to prohibit live bait. Thus, although these fishermen may need to alter the current method of fishing, they should not need to relocate.

*Comment 18:* NMFS failed to factor in the economic benefits from decreased swordfish discards which would be added to the United States' total allowable landings under the ICCAT swordfish rebuilding program if swordfish discards are reduced below ICCAT targets.

*Response:* NMFS disagrees that the Agency failed to factor in the economic benefits from decreased swordfish discards in relation to the 1999 ICCAT swordfish rebuilding program. NMFS recognizes that reducing dead discards is crucial in order for U.S. fishermen to continue to land the full swordfish quota allocated to the United States (see section 7 of the FSEIS). For a full analysis of the social, economic, and conservation benefits of the 1999 swordfish rebuilding program, see the

preamble to the proposed rule (64 FR 33519, December 15, 1999).

*Comment 19:* Adding the DeSoto Canyon area closure to the Western Gulf of Mexico closure still would not save that many blue and white marlins. NMFS must weigh that against the economic devastation the closures will cause.

*Response:* NMFS agrees that economic impacts must be considered. However, NMFS does not believe that Agency needs to "balance" the economic impacts against the conservation benefits. The Magnuson-Stevens Act mandates NMFS to rebuild overfished stocks, prevent overfishing, and minimize bycatch and bycatch mortality for all stocks, not just billfish. Recently, the U.S. Court of Appeals for the District of Columbia Circuit ruled that the Magnuson-Stevens Act requires NMFS to give priority to conservation benefits and to consider adverse economic impacts if two alternatives achieve the same conservation benefits. NMFS recognizes that some regulations that meet this mandate will cause economic harm and has provided a summary of alternatives that may help affected fishermen and communities in Section 3 of the FSEIS. In addition, NMFS has analyzed many different areas and seasons in order to determine whether time/area closures will be effective at meeting the goals of this FSEIS, which time/area closures are the most effective, and which time/area closures are effective but have the least economic impacts. NMFS believes that the management measures chosen will meet all of the goals of this action and minimize the economic impacts, to the extent practicable.

#### *Social and Economic Analyses*

*Comment 1:* NMFS received comments on the extent of the impacts of the proposed closed areas on the fishing fleet, including: One-third of the fleet would go out of business; hundreds of coastal communities would be negatively impacted; many fishermen would need to relocate; and the closures fall disproportionately on minority and low-income communities.

*Response:* Comments received on the proposed rule helped NMFS to develop final regulations that would minimize the impacts of the potential closed areas while yielding similar (or better) conservation benefits. For example, many comments suggested that NMFS consider the DeSoto Canyon area both instead of and in addition to the proposed western Gulf closure (area Gulf B). NMFS found that the proposed Gulf B closure could reduce the total gross revenues from the entire pelagic

longline fleet by 6.4 percent while the DeSoto Canyon closure might reduce the total gross revenues from the entire fleet by 2.2 percent. In addition, while analyses indicate the Gulf B closure could increase swordfish discards by 3.9 percent, the DeSoto Canyon closure could decrease swordfish discards by 4.1 percent. In the South Atlantic, the proposed closure could reduce swordfish discards by 27.7 percent and reduce total gross revenues to the fleet by 19.2 percent while the final closure could reduce swordfish discards by 27.3 percent and reduce total gross revenues for the fleet by only 9.0 percent.

*Comment 2:* The closures will have almost no adverse impact on any group including commercial longline fishermen, as shown by NMFS' analyses. The economic and biological benefits of these zone closures far outstrip any commercial interests.

*Response:* NMFS disagrees that this rule will not have any adverse impacts. NMFS' analyses, as supported by numerous comments received, indicate that many fishermen, dealers, and related industries could go out of business as a result of this rule. In addition, this rule will have ripple effects throughout the entire fishing community, commercial and recreational, and into other jobs and industries such as mechanics, engineers, and fishing supply markets. The analyses conducted for this rule indicate that the closed areas and times will have positive biological impacts and significant negative economic impacts for some businesses. NMFS has tried to achieve the conservation goal of minimizing bycatch while minimizing the economic impacts.

*Comment 3:* Restrictions on commercial fishermen have economic impact not just on dealers and wholesalers but also on local grocery stores, welders, truckers, electrical technicians, mechanics, food banks, and other people in all communities.

*Response:* NMFS agrees that this rule will have indirect impacts beyond the immediate fishing industry. However, non-fishing industries are already dependent on a range of businesses and industries. Although some initial adverse impacts may occur, these indirectly affected industries should be able to adjust through increased business in other non-fishing sectors.

*Comment 4:* The economics of the pelagic longline fishery are integrated with other fisheries from a dealer's perspective.

*Response:* NMFS agrees. In both the initial and final regulatory flexibility analyses and the regulatory impact review, NMFS analyzed the impact of

this rule on dealers. NMFS stated that, as a result of this rule, some dealers may lose a substantial amount of fish previously supplied from fishermen who have been issued a directed or incidental swordfish permit. However, the actual amount of gross revenues dealers lose will depend on the type of fish and the amount of fish dealers can obtain from other fishermen and other fisheries. Although NMFS believes this regulation will have a significant economic impact on HMS dealers who are located in coastal ports adjacent to the closed areas, most dealers are not as specialized as fishermen are, and they may be in a position to develop alternative business opportunities (e.g., purchases of other domestic fish products, import/export, value-added processing).

*Comment 5:* Closing the DeSoto canyon area will force some businesses to close.

*Response:* NMFS agrees; assuming no effort redistribution, the economic analyses for the DeSoto Canyon closure indicate that approximately eight vessels (4 percent) would lose half of their gross revenues and seven dealers who received fish from limited access permit holders (5.6 percent) would lose business volume equal to about half of the fish now handled. However, the economic impacts of the DeSoto Canyon are smaller than the anticipated economic impacts of the proposed Gulf B closure (12 vessels and 3 dealers losing half of their business). In addition, the closure of the DeSoto Canyon area has greater biological benefits for undersized swordfish than the proposed Gulf B closure. Thus, although some vessels may still go out of business as a result of this closure, the DeSoto Canyon area closure minimizes the economic impacts for most individuals. Also, the DeSoto Canyon area is located offshore, so smaller fishing vessels may still be able to fish adjacent open areas without relocating. This is not true of the Gulf B closure, which would have forced small vessels owners who wished to continue to fish to relocate.

*Comment 6:* With the closures, pelagic longline fishermen are likely to move into other areas. Many existing fishermen and countless others working in those areas will be devastated by the concentration of boats. NMFS has failed to analyze the impact of displaced fishermen on communities in the open areas.

*Response:* NMFS agrees that with this rule, many pelagic longline fishermen are likely to move into other areas. While this rule may increase user conflicts in some areas, NMFS feels that

this relocation will increase the social and economic benefits in many communities by increasing the level of economic activity in the area, including employment. It is likely that some dealers and marinas in the open areas or along the edges of the closed areas will see an increase in business as fishermen move. Other support businesses near the open areas will likely be similarly influenced. Also, communities in the closed areas may have some economic relief if they transfer effort from commercial fishing to recreational fishing. This may have the added benefits of lessening user conflicts in other areas and enhancing the recreational experience. In addition, due to the shorter Charleston Bump closure and the smaller DeSoto Canyon closure further off the coast, some fishermen in those areas may decide not to relocate.

*Comment 7:* Even though the quantity of swordfish available to consumers may not decrease due to imports, the quality of fresh swordfish will. Fresh fish should be available to everyone, not just to those who have the economic means to get it themselves or live across a line on a map. Even with a buyout, the level of economic activity will be diminished and consumers will lose access to the freshest product.

*Response:* NMFS agrees that it is advantageous when fresh fish is available to everyone, and future generations are considered in efforts to develop sustainable fisheries. For that reason, NMFS is working to rebuild overfished fisheries and to reduce bycatch and bycatch mortality while minimizing the economic impacts with methods such as time/area closures and gear modifications, without banning pelagic longline gear. These methods will allow the fishery to continue to provide as much fresh fish as possible.

*Comment 8:* This proposed rule should be considered as significant under Executive Order (E.O.) 12866.

*Response:* Both NMFS and the Office of Management and Budget (OMB) concluded that this rule does not meet the criteria for classification as "significant" for purposes of E.O. 12866 review. However, NMFS has prepared initial and final regulatory flexibility analyses as required by the Regulatory Flexibility Act (RFA). It should be noted that a rule could have a significant economic impact for purposes of the RFA without the rule being considered significant under the criteria of E.O. 12866.

*Comment 9:* The costs of the time/area closures have been overestimated while the benefits have been underestimated. NMFS has overestimated the man-hour cost of circle hooks. Many economic

benefits have been underestimated or omitted from the analysis of the economic impact of the proposed closures.

*Response:* NMFS agrees that some of the costs have been overestimated and some of the benefits have been underestimated. In both the initial and final regulatory flexibility analyses and the regulatory impact review, NMFS estimated the maximum economic impact of each alternative and understated many of the benefits. This is different than the analyses NMFS conducted to analyze the conservation impacts. Those analyses estimated the conservation impacts under no effort redistribution and effort redistribution models. The no effort redistribution model allowed NMFS to estimate the maximum biological benefits. The effort redistribution model allowed NMFS to estimate the minimum biological benefits. For the economic analyses, NMFS assumed no effort redistribution. This model allowed NMFS to estimate the maximum economic impact of the final regulations. If NMFS had assumed effort redistribution, the economic analyses would have indicated no change from the status quo or, perhaps, an increase in gross revenues (see section 7 of the FSEIS). While NMFS believes that the actual costs and benefits of the regulations will be somewhere between status quo and the costs described in the analyses, NMFS used the estimates from the most conservative models to make its decisions. This means that, for the biological estimates, NMFS used the effort redistribution model, and for the economic estimates, NMFS used the no-effort redistribution model. However, NMFS believes that many fishermen and related industries will adapt to the regulations and will continue to work in either the HMS fisheries or in others. However, because NMFS cannot predict the behavior of individuals, NMFS cannot estimate the exact cost or benefit any regulation will have. In addition, NMFS recognizes that the ripple effect of the closures will impact other business that provide goods and services to the pelagic longline fishery (e.g., tackle manufactures and suppliers; dock-side services, including ice, bait, fuel, dockage, labor; and vessel manufacture and repair). Although the final regulatory flexibility analysis and regulatory impact review provide a more thorough discussion of economic factors associated with the final Agency actions, NMFS does not have the necessary detailed economic information to make a quantitative

assessment of the impacts on fishery support businesses.

*Comment 10:* The use of gross revenues to quantify impacts does not provide an accurate assessment of the economic impacts of the proposed rule; approximating loss changes by using average vessel costs would be a more appropriate technique.

*Response:* NMFS agrees that using net revenues instead of gross revenues would provide a more accurate assessment of the economic impacts. However, as described in the HMS FMP, NMFS has only one estimate of the average variable costs for vessels in the pelagic longline fishery. Removing this estimate from every estimate of gross revenues would be the same as removing a constant and would result in the same estimates as those from gross revenues in terms of percent change in net revenues. Thus, NMFS prefers, at this time, to discuss the impact in regard to gross revenues and variable costs separately. However, NMFS is working on expanding its collection of social and economic data. NMFS is seeking approval to make the economic add-on to the pelagic logbook data collection mandatory for selected vessels. This information could be used in future rulemakings to estimate the net revenues for each vessel.

*Comment 11:* The documents do not have enough data on people and the lives this rule will affect. Because of this, the rule fails to fully assess the social and economic impacts. NMFS needs to expand the social impact assessment.

*Response:* The data used to examine the alternatives considered in the rulemaking constitute the best available data. However, NMFS agrees that additional data will be beneficial to future analyses. Therefore, NMFS is increasing efforts to collect social and economic data for use in future analyses, such as through the cost-earnings add-on to the pelagic logbook and charter/headboat logbook, and social and economic data surveys to be administered to tournament participants.

*Comment 12:* NMFS needs additional information regarding any social and economic impacts from the proposed rule on the recreational fishing industry.

*Response:* The proposed rule and FSEIS included a discussion of the value of recreational HMS fisheries and the potential increases in fishing success as a result of the closure of commercial pelagic longline fishing along the U.S. Atlantic coast. Given the potential benefits of the rule on the recreational fishing industry and the comments received, NMFS expanded

the discussion of the impacts on recreational fishermen in the final rule documents.

*Comment 13:* If the closures aid in the recovery of billfish, sharks, tunas, and swordfish, there will be tremendous economic gain in the recreational fishing sector. Healthy fish populations produce more economic benefit when they are used for recreational fishing first. The economic benefits of recreational angling have been demonstrated many times.

*Response:* NMFS agrees that the recreational fishing industry provides many economic benefits and employment. The 1988 Billfish Fishery Management Plan, which prohibited commercial vessels from possessing billfish, recognizes the importance of the recreational billfish fishery. Although increasing the recreational fishery benefits and decreasing user conflicts are not an objective of the rule, NMFS realizes that such benefits could occur as a result of the regulations.

*Comment 14:* NMFS needs to evaluate the economic impacts on recreational fishermen in the mid-Atlantic Bight that may result from increased interactions with displaced pelagic longline fishing activity.

*Response:* NMFS agrees that displacement of pelagic longline effort may have an impact on the remaining open areas in the Atlantic. Accordingly, NMFS includes a discussion of additional management measures specifically for the mid-Atlantic Bight to reduce potential interactions with endangered/threatened species and with recreational anglers. In addition, the reduced time/area closures will not only minimize economic impacts on the commercial fishing industry, but also reduce user conflicts that may have occurred under the proposed rule if effort had been concentrated into smaller remaining open areas. For example, NMFS reduced the closure along the Atlantic coast, particularly the Charleston Bump area. This should help to minimize any user conflicts that may have occurred as a result of the proposed rule because some commercial fishermen in the Charleston Bump area may decide not to relocate north. However, the goal of this regulation is to reduce bycatch and bycatch mortality in the pelagic longline fishery, consistent with the Magnuson-Stevens Act, not to reduce user conflicts. NMFS will continue to monitor the impacts of this regulation on the environment and fishing interests. If necessary, NMFS will work with the APs and may issue additional regulations in order to reduce user conflicts.

*Comment 15:* If one compares the 1997 summary economic statistics in the IRFA with the DSEIS and the 1998 summary statistics in the supplemental information about DeSoto Canyon, it appears that the fishery is collapsing.

*Response:* NMFS disagrees. The level of participation in the fishery may appear to have declined because the IRFA undertaken for the proposed rule and the DSEIS used data from the northeast logbooks, whereas the analysis for the supplemental DeSoto Canyon alternative did not. The use of these northeast logbooks in the DeSoto Canyon analysis would increase the number of vessels that reported landings in 1998; however, most of these vessels reported few, if any, landings from areas in or near the final time/area closures, and would not be directly affected by the DeSoto closure. In addition, the average gross revenue per permit holder increases by 21 percent when comparing the 1997 data with the 1998 data (\$113,173 versus \$137,126).

*Comment 16:* While smaller areas would minimize the economic impacts on commercial fishermen, the District of Columbia Circuit Court of Appeals recently held that conservation concerns outweigh concerns about the potential economic impacts of fishery regulations.

*Response:* NMFS agrees that conservation concerns are important. However, NMFS also recognizes that the proposed rule would have significant economic impacts. For this reason, NMFS re-examined the data and revised the final actions to achieve similar, or better, conservation impacts while reducing the economic impacts. NMFS feels that the suite of final actions (the revised time/area closures and the live bait prohibition) will have greater conservation benefits than the proposed regulations and serves to better mitigate economic impacts.

*Comment 17:* The proposal violates the Regulatory Flexibility Act and would create social and economic devastation to fishing families and communities.

*Response:* NMFS disagrees that the proposed or final regulations violate the RFA. The RFA imposes an analytical requirement and specifies procedures for assessing the impacts of proposed regulations on small entities. Federal Agencies must determine the economic impact, explore feasible alternatives for reducing the economic impact, and explain the reason for the regulatory choice. Further, the RFA requires that the Federal Agency obtain public comment on the analysis, and that comments be addressed in a justification of the final action. NMFS believes that the analyses in the

proposed rule and supplemental information meet all the requirements of the RFA. NMFS recognizes that the final regulations will have large impacts on many fishing families and communities but notes that the RFA does not preclude an Agency from implementing regulations having such impacts. NMFS chose final actions that meet the conservation goals and minimized the economic impacts, to the extent practicable.

*Comment 18:* Regional market gluts, especially associated with bad weather events and/or quota closures, should be expected to reduce ex-vessel prices.

*Response:* NMFS agrees that the time/area closures may have some impact on ex-vessel price particularly if closures or bad weather keep commercial fishermen from fishing in the open areas. However, given the extent of the remaining open areas in the Gulf and along the Atlantic coast, NMFS does not believe that the time/area closures would change the ex-vessel price significantly or cause significant market gluts.

*Comment 19:* NMFS should omit dealers who only import foreign fish from the analysis; in reality, domestic dealers who primarily offload and purchase "trip-fish" are few and far between and those in the closed areas will be impacted far greater than NMFS has analyzed.

*Response:* NMFS agrees that dealers who purchase most of their fish from vessels that now fish the designated closed areas will be greatly affected by these regulations. However, neither the IRFA nor FRFA considered imported fish. Instead, these analyses only considered fish sold to dealers by swordfish limited access permit holders.

*Comment 20:* Pelagic longline vessels need to gross at least \$500,000 year to be profitable; NMFS' estimate for gross ex-vessel revenues is too low.

*Response:* NMFS disagrees that the estimate for average ex-vessel gross revenues used in the IRFA and FRFA is too low. A number of studies performed on the voluntary economic add-on of the pelagic logbook indicate that many fishermen are operating on the margin and are not profitable. One study found that the average gross revenue per vessel was \$118,804. This is similar to the average of \$113,173 used in the IRFA and \$137,126 used in the FRFA. Thus, while some vessels may gross over \$500,000, the majority of vessels do not.

#### Changes From the Proposed Rule

For reasons explained in the responses to comments listed in the preceding text, NMFS has modified the proposed rule to balance bycatch reduction objectives with the need to

mitigate economic impacts. The proposed western Gulf of Mexico closure has been changed to a Gulf-wide prohibition on the use of live bait with pelagic longline gear. Also, the year-round DeSoto Canyon closed area has been added to further reduce dead discards of small swordfish. The proposed southeastern United States closed area has been split into northern and southern components: a seasonal (February 1– April 30) closure for the Charleston Bump area and a year-round closure for the Florida East Coast area.

To facilitate enforcement, several new definitions and prohibitions were added, and the proposed descriptions of fishing gear and the conditions for transit of the closed areas were revised. These revisions prohibit fishing activity of any type, regardless of gear actually deployed or target species, when a vessel issued an HMS permit is in a closed area with pelagic longline gear on board. Additionally, this final rule establishes a rebuttable presumption that fish on board a vessel in a closed area were taken in the closed area with a pelagic longline if that gear is on board. This imposes a burden on the vessel operator to demonstrate that such fish were taken outside the closed area (e.g., logbook entries, VMS signature).

#### Conclusions

In this final rule, NMFS prohibits pelagic longline fishing in areas with relatively higher bycatch rates because this alternative would best address the conservation and management objectives embodied in the FMP as required by the Magnuson-Stevens Act and ICCAT recommendations. Under the effort redistribution model, the final time/area closures, in conjunction with the live bait prohibition, are expected to reduce swordfish discards by 31 percent and sailfish discards by 29 percent; blue marlin and white marlin discards could increase by 3 percent and 7 percent, respectively. The final action time/area closures in the DeSoto Canyon, East Florida Coast and Charleston Bump could reduce the number of swordfish kept by 13 percent and the number of dolphin kept by 18 percent, while BAYS tunas landings would increase by nearly 10 percent.

The final area closures, together with the ban on live bait longlining in the Gulf of Mexico, appropriately meet the objectives of the Billfish and HMS FMPs and have the greatest likelihood of reducing bycatch while minimizing, to the extent possible, adverse impacts on fishing revenues and costs. Should future research indicate that practicable gear modifications could further reduce bycatch of managed HMS and/or

protected resources, NMFS will consider those gear modifications in conjunction with, or as an alternative to, time-area closures. In addition, NMFS will address turtle bycatch in the pelagic longline fishery in a separate rulemaking (see the following ESA discussion). Future regulatory measures to reduce sea turtle bycatch may involve additional area closures and/or further modifications to fishing gear and methods in defined areas of high interaction rates.

NMFS notes that there are similarities and differences between the time-area closures for pelagic longline gear contained in this final rule and those contained in legislation pending before Congress. Should any of the Congressional bills become law, NMFS will modify the measures contained in this final rule as necessary.

#### Compliance Guide

Under the Small Business Regulatory Enforcement Fairness Act of 1996, Federal Agencies are required to provide small business entities with a plain-language summary of how to comply with new regulations. Copies of the compliance guide for this final rule are available from Rebecca Lent (see **ADDRESSES**). To facilitate distribution, the compliance guide is also included in this document:

Q1: I am a recreational fisherman. Will these regulations affect me?

A: No. These regulations only affect commercial fishermen who use pelagic longline gear in the Atlantic ocean and have a Federal permit for Atlantic HMS.

Q2: I use pelagic longline gear. Will these regulations affect me?

A: Yes, if you have a Federal permit for Atlantic HMS. These regulations will prohibit you from fishing with pelagic longline gear in certain areas and times and from using live bait in the Gulf of Mexico. The Gulf of Mexico is the area of the U.S. EEZ west of 83° W. longitude as defined in 50 CFR 600.105 (c).

Q3: What is longline gear?

A: A longline is fishing gear that is set horizontally, either anchored, floating, or attached to a vessel, and that consists of a mainline with three or more leaders (gangions) and hooks, whether retrieved by hand or mechanical means.

Q4: What is pelagic longline gear?

A: Pelagic longline gear is defined as a longline that is suspended by floats in the water column and that is not fixed to or in contact with the ocean bottom. Your vessel has pelagic longline on board when:

1. A power-operated longline hauler,
2. A mainline,
3. High-flyers,

4. Floats capable of supporting the mainline, and

5. Leaders (gangions) with hooks are on board. Removal from the vessel of any one of these five elements constitutes removal of pelagic longline gear.

Q5: What are the areas where I can't fish using pelagic longline gear?

A: As of November 1, 2000, you will not be able to fish at any time using pelagic longline gear in the DeSoto Canyon area. This area, composed of two squares offshore of the west coast of Florida, is defined as the area within the following coordinates: 30°00' N. lat., 88°00' W. long.; 30°00' N. lat., 86°00' W. long.; 28°00' N. lat., 86°00' W. long.; 28°00' N. lat., 84°00' W. long.; 26°00' N. lat., 84°00' W. long.; 26°00' N. lat., 86°00' W. long.; 28°00' N. lat., 86°00' W. long.; 28°00' N. lat., 88°00' W. long.; 30°00' N. lat., 88°00' W. long.

As of February 1, 2001, you will not be able to fish at any time using pelagic longline gear in the East Florida Coast area. This area, located along the east coast of Florida through Georgia, is defined as the seaward area within the following coordinates: starting at 31°00' N. lat. near Jekyll Island, Georgia, and proceeding due east to 31°00' N. lat., 78°00' W. long.; 28°17' N. lat., 79°00' W. long.; then proceeding along the boundary of the Economic Exclusive Zone (EEZ) to 24°00' N. lat., 79°30' W. long.; then connecting by straight lines the following coordinates in the order stated: 24°00' N. lat., 79°30' W. long.; 24°00' N. lat., 81°00' W. long.; 24°00' N. lat., 81°47' W. long.; then proceeding due north to intersect the coast at 81°47' W. long. near Key West, Florida.

Also, as of February 1, 2001, you will not be able to fish using pelagic longline gear from February through April each year in the Charleston Bump area. This area, located off of North Carolina, is defined as 34°00' N. lat. near Wilmington Beach, North Carolina, and proceeding due east to connect by straight lines the following coordinates: 34°00' N. lat., 76°00' W. long.; 31°00' N. lat., 76°00' W. long.; then proceeding due west to intersect the coast at 31°00' N. lat. near Jekyll Island, Georgia.

Q6: Are all three areas closed year-round?

A: No. The Charleston Bump area is closed only February 1 through April 30 of each year. The other two areas, DeSoto Canyon and East Florida Coast, are closed year-round.

Q7: Are there any gear or fishing method restrictions in this rule?

A: Yes. As of September 1, 2000, in the Gulf of Mexico, pelagic longline fishermen are not allowed to use live bait. Setting up a live well or

maintaining live baitfish on board is prohibited. You may not have a tank or well attached to an aeration or water circulation device or have live baitfish if a pelagic longline is on board.

Q8: I am a recreational fisherman. Can I use live bait?

A: Yes. These regulations do not affect recreational fishermen.

Q9: I am a commercial fisherman but I don't use pelagic longline. Will these regulations affect me?

A: As long as you do not have a pelagic longline on board your vessel, you will be able to fish in the closed areas. See question number 4 above for an explanation of the five elements of pelagic longline gear.

Q10: I use pelagic longline gear but do not have a limited access permit to fish for highly migratory species. Will these regulations affect me?

A: These closed areas and gear restrictions apply only to commercial fishermen who hold Federal permits for Atlantic HMS. While unpermitted vessels may fish for other species with pelagic longline gear in these areas, no tunas, swordfish, billfish, or sharks may be retained on board those vessels. However, NMFS is working with the Regional Councils to ensure consistency between regulations for all pelagic longline fisheries.

Q11: Will I need to buy a vessel monitoring system (VMS)?

A: If you are a commercial fisherman with Federal permits for Atlantic HMS and you have pelagic longline gear on board, you will need to have a VMS operational by September 1, 2000.

Q12: Can I transit the closed areas or will I need to go around them?

A: If you have pelagic longline gear on board and possess a Federal Atlantic HMS permit, you will be allowed to transit the area if your vessel has a working VMS unit, but you will not be allowed to fish with any gear type. If you have pelagic longline gear on board, it is assumed that any fish on board were caught with pelagic longline in the closed area and you will have to demonstrate that the fish were harvested outside the closed area. If you do not have pelagic longline on board, you may fish in the area.

Q13: Is there a vessel buyback program associated with this rule?

A: No. This rule does not have a buyback program associated with it. Legislation pending before Congress may address vessel buybacks.

Q14: I have the Federal swordfish, shark, and tuna limited access permits. If I decide to leave the pelagic longline fishery, can I sell my permits?

A: Yes. You can sell your limited access permits individually, as a group,

with the vessel, or without the vessel. If you have directed permits, upgrading restrictions for horsepower, length overall, and net and gross tonnage apply. For more information on transferring or renewing limited access permits, please contact the NOAA Fisheries Southeast region permit office in St. Petersburg, FL, at (727) 570-5326.

### Classification

This final rule is published under the authority of the Magnuson-Stevens Act, 16 U.S.C. 1801 *et seq.*, and ATCA, 16 U.S.C. 971 *et seq.*

NMFS prepared an initial regulatory flexibility analysis for the proposed rule. Based on comments received on the proposed rule and on the IRFA (see Comments and Responses section), NMFS has amended the final actions and has revised the regulatory flexibility analysis accordingly. The final regulatory flexibility analysis FRFA assumes that fishermen, during the time they would otherwise be pelagic longline fishing in the designated areas would instead (1) make longline sets in other areas, (2) participate in other commercial fisheries, or (3) exit commercial fishing. As of March 23, 2000, 450 vessel owners had been issued for limited access permits for swordfish, sharks, and the Atlantic tunas Longline category. With these three permits, these 450 fishermen may use a pelagic longline to target Atlantic swordfish (if they have a directed swordfish permit), Atlantic tunas, or Atlantic sharks (if they have a directed shark permit). If they have an incidental swordfish or incidental shark permit, these fishermen could still target Atlantic tunas. Thus, the number of small entities directly affected by this regulation consists of at least these 450 fishermen. In addition, other sectors of the commercial fishery might be affected by this regulation, including dealers, processors, bait houses, and hook manufacturers. Using the weighout slips submitted by fishermen reporting in the pelagic longline logbook, NMFS estimates that 125 dealers received fish in 1998 from the 450 fishermen who qualified under the limited access program. NMFS also received comments that the businesses associated with the recreational and charter/headboat sectors of the HMS fisheries may also experience economic impacts as a result of the commercial fishing effort displacement which would result from the time/area closures. On balance, though, these impacts are likely to be positive as gear conflicts will be reduced in some areas and the availability of target species will increase for the recreational sector.



Under this final action, a decrease in gross revenues will result for some proportion of the affected small entities in the commercial fishing sector. Under the final time/area closure actions, NMFS estimates that, assuming the worst case scenario, the average annual gross revenues per permit holder could decrease by nearly 5 percent to about \$130,000. Additionally, NMFS estimates that under the final closure actions approximately 43 percent of the vessels that reported landings in 1998 will experience at least a 5-percent decrease in gross revenues and approximately 14 percent of the vessels will experience at least a 50-percent decrease in gross revenues (i.e., be forced out of business). The final rule closures will also have an economic impact on dealers. About 15 percent of the permitted dealers could experience at least a 5-percent reduction in the amount of fish handled due to the DeSoto Canyon area closure, while 28 percent could experience at least five percent reduction in the amount of fish handled due to the Charleston Bump and East Florida Coast closures. However, to the extent that landings of HMS are likely to increase in other areas, gains will accrue to certain other vessel operators and dealers.

Based on comments received on the proposed rule and the IRFA, NMFS has adopted a ban on live bait sets in lieu of the western Gulf of Mexico closed area. While a prohibition on live bait may reduce the landings of some pelagic longline fishermen, particularly yellowfin tuna landings, it is not likely that this final action will have a large impact on the gross revenues of any permit holder. More likely, this final action may have an impact on the net revenues of some permit holders since it will change the method of fishing. Requiring the use of frozen bait might increase costs by up to 22 percent for fishermen who currently use live bait. However, the use of dead bait might decrease the time at sea (since a number of days are used up fishing for live bait) and a decrease in the time spent at sea might decrease the cost of fuel, groceries, or the costs associated with catching the bait and keeping it alive. Thus, even though fishermen might need to spend additional money up front in order to leave for a fishing trip, this alternative might be beneficial if more sea time is available to fish for target species. In any event, the economic impacts of a live bait prohibition are expected to be less significant than under the proposed closure.

The alternatives considered include the status quo, gear modifications, and a ban on pelagic longline fishing by U.S.

vessels in the Atlantic Ocean. Although the status quo and gear modification alternatives might have lesser economic impacts on participants in the pelagic longline fishery, those alternatives either do not reduce bycatch to the extent that NMFS expects to be achieved by the time-area closures or present enforcement difficulties. While a complete ban on longline fishing would reduce bycatch to a greater extent than the time-area closures, the lost value of commercial seafood products and the adverse impacts on fishery participants and fishing communities would impose greater costs than the final action.

In addition to changes from the proposed rule, NMFS has decided to delay implementation of some of the final regulations to help mitigate some of the economic impacts fishermen may experience as a result of the time/area closures and to give fishermen and related industries a chance to relocate both business interests and families. The RIR/FRFA provides further discussion of the economic effects of the final actions and all the alternatives considered.

This final action will not impose any additional reporting or recordkeeping requirements on vessel operators or dealers. Vessel logbooks, dealer reports, observer notification, and VMS requirements applicable to the HMS fisheries are all currently approved by the Office of Management and Budget under existing regulations.

In preparing the draft HMS FMP and Billfish Amendment, NMFS reinitiated formal consultation for all Highly Migratory Species commercial fisheries on May 12, 1998, under section 7 of the ESA. In a BO issued on April 23, 1999, NMFS concluded that operation of the Atlantic pelagic longline fishery may adversely affect, but is not likely to jeopardize, the continued existence of any endangered or threatened species under NMFS' jurisdiction. Certain provisions of the BO were incorporated into the final rule that implemented the FMPs and consolidated the HMS regulations (e.g., moving after encounters and limiting the mainline length). Other provisions of the BO required non-regulatory programmatic actions (e.g., research and monitoring).

The Incidental Take Statement (ITS) of the April 23, 1999, BO authorized the following levels of incidental take in the pelagic longline fisheries: 690 leatherback sea turtles (*Dermochelys coriacea*), entangled or hooked (annual estimated number) of which no more than 11 are observed hooked by ingestion or moribund when released; 1541 loggerhead sea turtles (*Caretta*

*caretta*) entangled or hooked (annual estimated number) of which no more than 23 may be hooked by ingestion or observed moribund when released.

Observed take levels documented in 1999 indicate that, of all the turtles taken, up to 50 loggerheads and 19 leatherbacks were observed "hooked by ingestion" or moribund upon release. However, only about 3 percent observer coverage was obtained and the anticipated take levels were based on 5 percent observer coverage. Thus, the observed levels of take would likely have been considerably higher had the required 5 percent coverage level been achieved. If the target observer coverage level had been achieved, NMFS preliminarily projects that up to 83 loggerheads and 32 leatherbacks would have been observed "hooked by ingestion" or moribund in 1999.

On November 19, 1999, NMFS reinitiated consultation under Section 7 of the ESA because observed take of loggerhead sea turtles by the Atlantic pelagic longline fishery had exceeded levels anticipated in the ITS. The consultation included this pelagic longline management rulemaking because the time/area closures, if implemented, could affect the overall interaction rates with sea turtles depending on fishermen's responses in terms of shifting pelagic longline effort or fishing for other species with other gear. The consultation also addressed the shark drift gillnet fishery and the Atlantic tunas purse seine fisheries; however, the following discussion addresses only issues in the BO that apply specifically to the pelagic longline fishery which is the subject of this final rule.

After reviewing the current status of the northern right whale, the humpback, fin and sperm whales, and leatherback, loggerhead, green, hawksbill, and Kemp's ridley sea turtles, the environmental baseline for the action area, the effects of implementation of the proposed Amendment to the Atlantic HMS FMP, the record of compliance with requirements of previous BOs on HMS fisheries, and probable cumulative effects, it is NMFS' BO that continued operation of the Atlantic pelagic longline fishery is likely to jeopardize the continued existence of loggerhead and leatherback sea turtles.

According to the BO, to avoid the likelihood of jeopardizing the continued existence of loggerhead and leatherback sea turtles, NMFS must implement fishery management measures to reduce the number of these turtles that are incidentally captured, injured, killed by gear associated with federally-managed

fisheries by at least 75 percent from current levels; that is, a reduction in the number of loggerhead and leatherback sea turtles captured, injured, or killed compared with a running average of the number captured, injured, or killed during the period 1993 to 1999. The reduction can be accomplished directly by gear modifications or it can be accomplished indirectly by changing the method by which gear is deployed.

Indirect modifications could include managing fisheries that use harmful gear over time and space to eliminate the likelihood of interactions between loggerhead sea turtles and gear (proportional to the threat posed by specific gear); managing fisheries to eliminate the likelihood that loggerhead sea turtles captured by gear would drown before they can be released (such as keeping soak times to less than 30 to 45 minutes); excluding gear from areas that, based on available data, appear to be important for loggerhead sea turtles; or, any combination of these changes that reduce the number of loggerhead sea turtles that are incidentally captured, injured, and killed by gear associated with federally-managed fisheries by at least 75 percent from current levels.

The BO identified the Reasonable and Prudent Alternatives (RPAs) necessary to avoid jeopardy, and listed the Reasonable and Prudent Measures (RPMs) and Terms and Conditions (TCs) necessary to authorized continued takes. According to the BO, if NMFS cannot develop and implement direct or indirect management measures that reduce the number of loggerhead sea turtles that are incidentally captured, injured, and killed by gear associated with federally managed fisheries by at least 75 percent from current levels, the following RPAs must be implemented: modifications in fishing gear or method (e.g., requirement for corrodible hooks or limiting fishing activity to certain temperature and time of day regimes); or exclusion zones (e.g., temporally and spatially restricting pelagic longline effort in the Grand Banks area); and enhanced monitoring.

Section 9 of ESA and Federal regulations issued pursuant to section 4(d) of ESA prohibit the take of endangered and threatened species, respectively, without special exemption. Incidental take is defined as take that is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity. Under sections 7(b)(4) and 7(o)(2) of the ESA, taking that is incidental to and not intended as part of the Agency action is not a prohibited taking, provided that such taking is in compliance with the RPMs and TCs of

the ITS. Section 7(b)(4)(c) of the ESA specifies that in order to provide an ITS for an endangered or threatened species of marine mammal, the taking must be authorized under section 101(a)(5) of the Marine Mammal Protection Act of 1972 (MMPA). Since no incidental take has been authorized under section 101(a)(5) of the MMPA, no statement on incidental take of endangered whales is provided and no take is authorized.

Regarding anticipated incidental take of sea turtles in the pelagic longline fishery for swordfish, tunas, and sharks, it is hoped that this final rule to reduce bycatch in the pelagic longline fishery, which may slightly increase take levels of sea turtles, will be more than offset by the additional requirements to implement the RPMs according to the terms and conditions of the ITS. The BO states that the RPMs that are necessary and appropriate to minimize take of listed species include an effective monitoring and reporting system to document take, educating fishermen to reduce the potential for serious injury or mortality of hooked turtles, and assessments of current data to look for trends that may indicate management measures to reduce the number of protected species interactions.

In order to be exempt from the take prohibitions of section 9 of ESA, the June 30, 2000, BO requires NMFS to comply with certain terms and conditions which would implement the RPMs described earlier and outline required reporting/monitoring requirements. The terms and conditions are non-discretionary and require: at-sea observer coverage; information collection on the condition of sea turtles and marine mammals when released; the presence and use of dipnets and cutting devices on all longline vessels; review of turtle bycatch and release mortality studies; financial support for genetic research to identify sea turtle subpopulations; examination of the influence of gear and fishing technique modifications such as light sticks and length of mainline on protected species interaction rates.

NMFS will address the requirements of the BO in a subsequent rulemaking and by certain non-regulatory actions. In the interim, this final rule will not result in any irreversible and irretrievable commitment of resources that will have the effect of foreclosing the formulation or implementation of any RPAs necessary to reduce impacts on protected species.

This final rule has been determined to be not significant for purposes of E.O. 12866.

## List of Subjects in 50 CFR Part 635

Fisheries, Fishing, Fishing vessels, Foreign relations, Intergovernmental relations, Penalties, Reporting and recordkeeping requirements, Statistics, Treaties.

Dated: July 26, 2000.

**Penelope D. Dalton,**

*Assistant Administrator for Fisheries,  
National Marine Fisheries Service.*

For the reasons set out in the preamble, 50 CFR part 635, is amended as follows:

## PART 635—ATLANTIC HIGHLY MIGRATORY SPECIES

1. The authority citation for part 635 continues to read as follows:

**Authority:** 16 U.S.C. 971 *et seq.*; 16 U.S.C. 1801 *et seq.*

2. In § 635.2, the definition of “High-flyer” is revised and new definitions for “Charleston Bump closed area,” “DeSoto Canyon closed area,” “East Florida Coast closed area,” “Handline,” “Longline,” and “Pelagic longline” are added in alphabetical order to read as follows:

### § 635.2 Definitions.

\* \* \* \* \*

*Charleston Bump closed area* means the Atlantic Ocean area seaward of the baseline from which the territorial sea is measured from a point intersecting the U.S. coast at 34°00' N. lat. near Wilmington Beach, North Carolina, and proceeding due east to connect by straight lines the following coordinates in the order stated: 34°00' N. lat., 76°00' W. long.; 31°00' N. lat., 76°00' W. long.; then proceeding due west to intersect the coast at 31°00' N. lat. near Jekyll Island, Georgia.

\* \* \* \* \*

*DeSoto Canyon closed area* means the area within the Gulf of Mexico bounded by straight lines connecting the following coordinates in the order stated: 30°00' N. lat., 88°00' W. long.; 30°00' N. lat., 86°00' W. long.; 28°00' N. lat., 86°00' W. long.; 28°00' N. lat., 84°00' W. long.; 26°00' N. lat., 84°00' W. long.; 26°00' N. lat., 86°00' W. long.; 28°00' N. lat., 86°00' W. long.; 28°00' N. lat., 88°00' W. long.; 30°00' N. lat., 88°00' W. long.

\* \* \* \* \*

*East Florida Coast closed area* means the Atlantic Ocean area seaward of the baseline from which the territorial sea is measured from a point intersecting the U.S. coast at 31°00' N. lat. near Jekyll Island, Georgia, and proceeding due east to connect by straight lines the following coordinates in the order

stated: 31°00' N. lat., 78°00' W. long.; 28°17' N. lat., 79°00' W. long.; then proceeding along the boundary of the EEZ to 24°00' N. lat., 79°30' W. long.; then connecting by straight lines the following coordinates in the order stated: 24°00' N. lat., 79°30' W. long.; 24°00' N. lat., 81°00' W. long.; 24°00' N. lat., 81°47' W. long.; then proceeding due north to intersect the coast at 81°47' W. long. near Key West, Florida.

*Handline* means fishing gear that consists of a mainline to which no more than two leaders (gangions) with hooks are attached, and that is released and retrieved by hand, rather than by mechanical means.

*High-flyer* means a flag, radar reflector or radio beacon transmitter, suitable for attachment to a longline to facilitate its location and retrieval.

*Longline* means fishing gear that is set horizontally, either anchored, floating, or attached to a vessel, and that consists of a mainline or groundline with three or more leaders (gangions) and hooks, whether retrieved by hand or mechanical means.

*Pelagic longline* means a longline that is suspended by floats in the water column and that is not fixed to or in contact with the ocean bottom.

3. In § 635.4, paragraph (a)(10) is added, and paragraph (e)(4) is removed, to read as follows:

**§ 635.4 Permits and fees.**

(a) \* \* \*

(10) *Permit condition.* An owner issued a swordfish or shark permit pursuant to this part must agree, as a condition of such permit, that the vessel's swordfish or shark fishing, catch and gear are subject to the requirements of this part during the period of validity of the permit, without regard to whether such fishing occurs in the EEZ, or outside the EEZ, and

without regard to where such swordfish or shark, or gear are possessed, taken or landed. However, when a vessel fishes within the waters of a state that has more restrictive regulations on swordfish or shark fishing, persons aboard the vessel must abide by the state's more restrictive regulations.

\* \* \* \* \*

4. In § 635.21, paragraph (c) introductory paragraph and paragraph (c)(2) are revised, and paragraph (c)(4) is added to read as follows:

**§ 635.21 Gear operation and deployment restrictions.**

\* \* \* \* \*

(c) *Pelagic longlines.* For purposes of this part, a vessel is considered to have pelagic longline gear on board when a power-operated longline hauler, a mainline, high-flyers, floats capable of supporting the mainline, and leaders (gangions) with hooks are on board. Removal of any one of these elements constitutes removal of pelagic longline gear. If a vessel issued a permit under this part is in a closed area designated under paragraph (c)(2) of this section with pelagic longline gear on board, it is a rebuttable presumption that fish on board such vessel were taken with pelagic longline gear in the closed area.

(2) If pelagic longline gear is on board a vessel issued a permit under this part, persons aboard that vessel may not fish or deploy any type of fishing gear in:

(i) The Northeastern United States closed area from June 1 through June 30 each calendar year;

(ii) In the Charleston Bump closed area from February 1 through April 30 each calendar year;

(iii) In the Florida East Coast closed area at any time beginning at 12:01 a.m. on February 1, 2001; and,

(iv) In the DeSoto Canyon closed area at any time beginning at 12:01 a.m. on November 1, 2000.

\* \* \* \* \*

(4) In the Gulf of Mexico: pelagic longline gear may not be fished or

deployed from a vessel issued a permit under this part with live bait affixed to the hooks; and, a person aboard a vessel issued a permit under this part that has pelagic longline gear on board shall not maintain live baitfish in any tank or well on board the vessel and shall not possess live baitfish, and shall not set up or attach an aeration or water circulation device in or to any such tank or well. For the purposes of this section, the Gulf of Mexico includes all waters of the U.S. EEZ west and north of the boundary stipulated at 50 CFR 600.105(c).

\* \* \* \* \*

5. In § 635.69, paragraph (a) is revised by adding a second sentence to read as follows:

**§ 635.69 Vessel monitoring systems.**

(a) *Applicability.* \* \* \* A vessel is considered to have pelagic longline gear on board for the purposes of this section, when gear as specified at § 635.21(c) is on board.

\* \* \* \* \*

6. In § 635.71, paragraphs (a)(30), (31), and (32) are added to read as follows:

**§ 635.71 Prohibitions.**

\* \* \* \* \*

(a) \* \* \*

(30) Deploy or fish with a pelagic longline greater than the maximum length authorized for any area specified at § 635.21(c)(1).

(31) Deploy or fish with any fishing gear from a vessel with a pelagic longline on board in any closed area during the time periods specified at § 635.21(c)(2).

(32) In the Gulf of Mexico, deploy or fish a pelagic longline with live bait affixed to the hooks or to possess live bait, or set up a well or tank to maintain live bait, aboard a vessel with pelagic longline gear on board as specified at § 635.21(c)(4).

\* \* \* \* \*

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