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Atlantic Highly Migratory Species (HMS); Pelagic Longline Fishery; Final Rule

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

50 CFR Parts 223 and 635

[Docket No. 040202035–4197–02; I.D. 112403A]

RIN 0648–AR80

Atlantic Highly Migratory Species (HMS); Pelagic Longline Fishery

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

ACTION: Final rule.

SUMMARY: This final rule implements new sea turtle bycatch and bycatch mortality mitigation measures for all Atlantic vessels that have pelagic longline (PLL) gear onboard and that have been issued, or are required to have, Federal HMS limited access permits, consistent with the requirements of the Endangered Species Act (ESA), the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act or M-S Act), and other domestic laws. These measures include mandatory circle hook and bait requirements, and mandatory possession and use of sea turtle release equipment to reduce bycatch mortality. This final rule also allows vessels with pelagic longline gear onboard that have been issued, or are required to have, Federal HMS limited access permits to fish in the Northeast Distant (NED) Closed Area, if they possess and/or use certain circle hooks and baits, sea turtle release equipment, and comply with specified sea turtle handling and release protocols.

DATES: This final rule is effective August 5, 2004, except for amendment 2 to § 635.2, and amendment 3 to § 635.21(c)(2)(v) and (c)(5)(iv) which are effective June 30, 2004.

ADDRESSES: For copies of the Final Supplemental Environmental Impact Statement/Regulatory Impact Review/ Final Regulatory Flexibility Analysis (FSEIS/RIR/FRFA) for this regulatory action, and the Final Environmental Impact Statement that the FSEIS supplements (issued by NMFS in April 1999), contact Christopher Rogers, Chief, Highly Migratory Species Management Division, 1315 East-West Highway, Silver Spring, MD 20910 or at (301) 713–1917 (fax). These documents are also available on the Internet at *http://www.nmfs.noaa.gov/sfa/hms/*.

FOR FURTHER INFORMATION CONTACT: Russell Dunn, Greg Fairclough, or Richard A. Pearson at 727–570–5447 or 727–570–5656 (fax).

SUPPLEMENTARY INFORMATION: The Atlantic tuna and swordfish fisheries are managed under the authority of the Magnuson-Stevens Act and the Atlantic Tunas Convention Act (ATCA). Atlantic sharks are managed under the authority of the Magnuson-Stevens Act. The Fishery Management Plan for Atlantic Tunas, Swordfish, and Sharks (HMS FMP), finalized in 1999, is implemented by regulations at 50 CFR part 635. The Atlantic pelagic longline fishery is also subject to the requirements of the ESA and the Marine Mammal Protection Act (MMPA).

NMFS published a Notice of Intent (NOI) on November 28, 2003, (68 FR 66783) to prepare an SEIS under the National Environmental Policy Act to assess the potential effects of a proposed rule to reduce sea turtle bycatch and bycatch mortality in the Atlantic HMS pelagic longline fishery. On February 11, 2004, NMFS published the proposed rule (69 FR 6621), and on February 13, 2004, the Environmental Protection Agency (EPA) announced the availability of the Draft SEIS (69 FR 7215). NMFS held three public hearings during the public comment period, which closed on March 15, 2004, for both the proposed rule and the Draft SEIS.

Information regarding the management history of sea turtle bycatch reduction efforts in the fishery, 2002 estimates of loggerhead and leatherback sea turtle interactions in the PLL fishery, the results of an NED research experiment, and proposed commercial management measures was provided in the preamble of the proposed rule and is not repeated here. Additional information regarding the alternatives analyzed may be found in the FSEIS/RIR/FRFA, available from NMFS (see **ADDRESSES**).

Final Management Measures

As discussed in the Response to Comments section below, NMFS has modified the final management measures. A description of specific changes to the proposed rule may be found after the Response to Comments section. These final management measures best meet the purpose and scope of this rulemaking by providing comprehensive and meaningful protection to Atlantic sea turtles, minimizing adverse economic impacts to the extent practicable, and achieving legal and policy obligations. By providing a successful roadmap for sea turtle bycatch and bycatch mortality reduction, NMFS will provide the impetus for other nations to adopt similar sea turtle conservation measures, thereby bringing truly meaningful protection to sea turtles throughout their entire ranges.

This final rule allows vessels with pelagic longline gear onboard and that have been issued, or are required to have, Federal HMS limited access permits to fish in the NED Closed Area, if they comply with certain requirements. Vessels are limited, at all times, to possessing onboard and/or using only 18/0 or larger circle hooks with an offset not to exceed 10 degrees. Only whole Atlantic mackerel and squid baits may be possessed and/or utilized with these allowable hooks. Also, only hooks that have been offset by the manufacturer are allowed. Vessels must possess and use sea turtle release equipment, and comply with specified sea turtle handling and release protocols.

Vessels fishing outside of the NED Closed Area with pelagic longline gear onboard and that have been issued, or are required to have, Federal HMS limited access permits are limited, at all times, to possessing onboard and/or using only 16/0 or larger non-offset circle hooks, and 18/0 or larger circle hooks with an offset not to exceed 10 degrees. Only whole finfish and squid baits may be possessed and/or utilized with these allowable hooks. Also, only hooks that have been offset by the manufacturer are allowed. Vessels must possess and use sea turtle release equipment, and comply with specified sea turtle handling and release protocols.

The following circle hooks are known to meet the minimum size requirements specified in the final regulations: Lindgren-Pitman 18/0 circle hook; Mustad model number 39960 18/0 circle hook; and, Mustad model number 39960 16/0 circle hook. Other circle hooks, meeting the size requirements specified in the final regulations, are also allowed. The requirement to use non-stainless steel hooks remains in effect.

The final sea turtle bycatch release equipment requirements, described below, similarly apply to all Atlantic vessels that have pelagic longline gear onboard and that have been issued, or are required to have, Federal HMS limited access permits. Diagrams for several of the pieces of equipment are provided in Appendix B1 to the FSEIS prepared for this final rule in a document entitled, ''Requirements and Equipment Needed for the Careful Release of Sea Turtles Caught in Hook and Line Fisheries.'' This document is available on the HMS website at *http://www.nmfs.noaa.gov/sfa/hms*. Diagrams for some of the equipment are also

provided in the final rule implementing dehooking devices in the shallow-set component of the Hawaii-based longline fishery (69 FR 17329). Minimum design standards for all required equipment are provided in this final rule.

The following new, or newly-revised, release gears are required as a result of this final rule: (A) a long-handled line clipper or cutter; (B) a long-handled dehooker for ingested hooks; (C) a long-handled dehooker for external hooks; (D) a long-handled device to pull an ''inverted V''; (E)a dipnet; (F) a standard automobile tire; G) a short-handled dehooker for ingested hooks; (H) a short-handled dehooker for external hooks; (I) long-nose or needle-nose pliers; (J) a bolt cutter; (K) a monofilament line cutter; and, (L) two different types of mouth openers and mouth gags (including either a block of hard wood, a set of three canine mouth gags, a set of two sturdy dog chew bones, a set of two rope loops covered with hose, a hank of rope, a set of 4 PVC splice couplings, or a large avian oral speculum).

Items A - D above are intended to be used for turtles that are not boated. Items E - L above are intended to be used for turtles that are brought onboard. The long-handled dehooker for ingested hooks required in Item B would also satisfy the requirement for Item C. If a 6–foot (1.83 m) J-style dehooker is used for Item C, it would also satisfy the requirement for Item D. Similarly, the short-handled dehooker for ingested hooks required for Item G would also satisfy the requirement for Item H. NMFS recommends, but does not require, that one type of mouth opener/mouth gag allow for hands-free operation of the dehooking device or other tool, after the mouth gag is in place. Only a canine mouth gag would satisfy this recommendation. Also, as described in Appendix B1 of the FSEIS prepared for the final rule, a ''turtle tether'' and a ''turtle hoist'' are recommended by NMFS, but are not required.

Table 1 provides the initial list of approved sea turtle bycatch release equipment meeting the minimum design standards. At this time, NMFS is aware of only one manufacturer of long-handled and short-handled dehookers for ingested hooks that meet the minimum design standards. However, this rule allows for approval of other devices, as they become available, if they meet the minimum design standards. Line cutters or line clippers (items A and K) and dehookers (items B, C, G, H) not included on the list must be NMFS-approved before being used. NMFS will publish a notice in the **Federal Register** of any new items approved as meeting the design standards.

TABLE 1. NMFS-APPROVED MODELS FOR EQUIPMENT NEEDED FOR THE CAREFUL RELEASE OF SEA TURTLES CAUGHT IN HOOK AND LINE FISHERIES.

Required Item	NMFS-Approved Models
(A) Long-handled line cutter*	LaForce Line Cutter; or Arceneaux Line Clipper.
(B) Long-handled dehooker for ingested hooks*	ARC Pole Model Deep-Hooked Dehooker (Model BP11).
(C) Long-handled dehooker for external hooks*[1]	ARC Model LJ6P (6 ft (1.83 m)); or ARC Model LJ36; or ARC Pole Model Deep-Hooked Dehooker (Model BP11); or ARC 6 ft. (1.83 m) Pole Big Game Dehooker (Model P610).
(D) Long-handled device to pull an ''inverted V''[2]	ARC Model LJ6P (6 ft.)(1.83 m); or Davis Telescoping Boat Hook to 96 in. (2.44 m) (Model 85002A); or West Marine # F6H5 Hook and # F6-006 Handle.
(E) Dipnet**	ARC 12-ft. (3.66-m) Breakdown Lightweight Dip Net Model DN6P (6 ft. (1.83 m)); or ARC Model DN08 (8 ft.(2.44 m)); or ARC Model DN 14 (12 ft. (3.66 m)); or ARC Net Assembly & Handle (Model DNIN); or Lindgren-Pitman, Inc. Model NMFS Turtle Net.
(F) Standard automobile tire**	Any standard automobile tire free of exposed steel belts.
(G) Short-handled dehooker for ingested hooks**	ARC 17-inch (43.18-cm) Hand-Held Bite Block Deep-Hooked Turtle Dehooking Device (Model ST08).
(H) Short-handled dehooker for external hooks[3]**	ARC Hand-Held Large J-Style Dehooker (Model LJ07); or ARC Hand-Held Large J-Style Dehooker (Model LJ24); or ARC 17-inch (43.18-cm) Hand-Held Bite Block Deep-Hooked Turtle Dehooking Device (Model ST08); or Scotty's Dehooker.
(I) Long-nose or needle-nose pliers**	12-in. (30.48-cm) S.S. NuMark Model #030281109871; or any 12-inch (30.48-cm) stainless steel long-nose or needle-nose pliers.
(J) Bolt cutter**	H.K. Porter Model 1490 AC.
(K) Monofilament line cutter**	Jinkai Model MC-T.
(L) Two of the following Mouth Openers and Mouth Gags**	.
(L1) Block of hard wood	Any block of hard wood meeting design standards (e.g., Olympia Tools Long-Handled Wire Brush and Scraper (Model 974174)).
(L2) Set of (3) canine mouth gags	Jorvet Model #4160, 4162, and 4164.
(L3) Set of (2) sturdy dog chew bones	Nylabone® (a trademark owned by T.F.H. Publications, Inc.); or Gumabone® (a trademark owned by T.F.H. Publications, Inc.); or Galileo® (a trademark owned by T.F.H. Publications, Inc.).
(L4) Set of (2) rope loops covered with hose	Any set of (2) rope loops covered with hose meeting design standards.
(L5) Hank of rope	Any size soft braided nylon rope is acceptable, provided it creates a hank of rope approximately 2 - 4 inches (5.08 cm - 10.16 cm) in thickness.
(L6) Set of (4) PVC splice couplings	A set of (4) Standard Schedule 40 PVC splice couplings (1-inch (2.54-cm), 1 1/4-inch 3.175-cm), 1 1/2- inch (3.81-cm), and 2-inch (5.08-cm).
(L7) Large avian oral speculum	Webster Vet Supply (Model 85408); or Veterinary Specialty Products (Model VSP 216-08); orJorvet (Model J-51z); or Krusse (Model 273117).

* Items (A) - (D) required for turtles not boated.
** Items (E) - (L) required for boated turtles.
[1]The long-handled dehooker for Item B would meet the requirement for Item C.
[2]If a 6-ft (1.83 m) J-Style dehooker is used to satisfy the requirement for Item C, it would also satisfy the requirement for Item D.
[3]The short-handled dehooker for Item G would meet the requirement for Item H.

The final management measures pertaining to sea turtle handling and careful release protocols, described below, apply to all Atlantic vessels that have pelagic longline gear onboard and have been issued, or are required to have, Federal HMS limited access permits. The existing requirement to post a plastic placard inside the wheelhouse describing sea turtle handling and release guidelines remains in effect, as does the requirement to adhere to existing sea turtle handling and resuscitation procedures specified at 50 CFR 223.206(d)(1). Additional sea turtle handling requirements are contained in this rule to improve the care of sea turtles on deck, and to facilitate the removal of fishing line and hooks from incidentally-captured sea turtles. The newly-required procedures

for hook removal and careful release of sea turtles are described in substantial detail in a document entitled, ''Careful Release Protocols for Sea Turtle Release with Minimal Injury.'' This document is required to be onboard all PLL vessels. It is provided in Appendix B2 of the FSEIS prepared for this final rule, which is available on the HMS website at *http://www.nmfs.noaa.gov/sfa/hms*. The Southeast Fisheries Science Center (SEFSC) has also made the document available as NOAA Technical Memorandum NMFS-SEFSC–524 at *http://www.sefsc.noaa.gov/seaturtletechmemos.jsp*.

To better assist industry in complying with the sea turtle careful release protocols, NMFS has established a Point of Contact (POC) to answer questions regarding the required release equipment, techniques, and problems, and to share solutions and successful experiences. The address for the industry POC is: Charles Bergman, 3209 Frederic Street, P.O. Drawer 1207, Pascagoula, MS, 39568–1207. The POC may also be contacted at 228–762–4591 ext. 259, or at 228–623–0748 (cellular), or via E-mail at *charles.bergman@noaa.gov*.

ESA Consultation

In November, 2003, NMFS received information that the Incidental Take Statement (ITS) specified for the HMS pelagic longline fishery in the June 14, 2001, Biological Opinion (BiOp) may have been exceeded for loggerheads in 2002, and for leatherbacks in 2001 and 2002. A final report on the estimated bycatch levels in the pelagic longline fishery was issued on December 12, 2003 (NOAA Technical Memorandum NMFS-SEFSC 515 (2003)).

Based upon the termination of the NED research experiment and preliminary information on sea turtle interactions, NMFS began preparation of a proposed rule to address sea turtle bycatch and bycatch mortality in the fishery. NMFS also requested reinitiation of consultation on the HMS pelagic longline fishery, pursuant to Section 7 of the ESA, in January, 2004. The proposed rule published on February 11, 2004 (69 FR 6621), and the notice of availability (NOA) of the DSEIS published on February 13, 2004 (69 FR 7215).

Based upon comment received during the public comment period, a re-examination of data pertaining to reductions in bycatch and bycatch mortality associated with various hook and bait combinations, and other information on sea turtles, NMFS considered modification of the measures in the proposed rule.

Taking into consideration the proposed modifications, NMFS' Office of Protected Resources issued a BiOp on June 1, 2004, that concluded that the long-term continued operation of the Atlantic HMS PLL fishery is not likely to jeopardize the continued existence of loggerhead, green, hawksbill, Kemp's ridley, or olive ridley sea turtles; and, is likely to jeopardize the continued existence of leatherback sea turtles. The NMFS Southeast Regional Office posted the new BiOp on its website, at *http://sero.nmfs.noaa.gov/*, on June 3, 2004.

The June 1, 2004, BiOp identified a Reasonable and Prudent Alternative (RPA) necessary to avoid jeopardy, and listed the Reasonable and Prudent Measures (RPMs), and Terms and Conditions (T & Cs) necessary to authorize continued take as part of the revised ITS. The RPA includes: (1) maximization of PLL gear removal to maximize post-release survival of incidentally-captured sea turtles; (2) improvement of the accuracy and timeliness of sea turtle reporting and analysis; (3) additional research on hook and bait combinations; and, (4) corrective action to prevent long-term elevated take and mortality. NMFS will undertake additional rulemaking and non-regulatory actions, as necessary, to implement any other management measures that are required under the BiOp. The regulatory and non-regulatory actions are described below.

Each element of the RPA has several sub-components, which are more fully described in the June 1, 2004, BiOp. Briefly, these include distribution of training materials to demonstrate the careful release of sea turtles, establishment of a fishery outreach point of contact (POC), implementation of training workshops and certification, enhanced observer coverage, quarterly and annual monitoring of take estimates, and further research and evaluation of circle hooks.

In addition, the BiOp specifies that, during the course of each three-year period, NMFS will review each quarterly and annual take estimate report as soon as it becomes available. If these reports indicate that the PLL fishery is not likely to stay within the authorized three-year take levels specified in the BiOp, NMFS will take corrective action to avoid long-term elevations in sea turtle takes and ensure that the ITS is not exceeded. These actions may include time-area closures, additional gear modifications or restrictions, or any other action that is deemed appropriate.

The corrective action described above is intended to ensure that total leatherback takes do not exceed long-term average take rates, over three-year periods. The BiOp also establishes performance standards to ensure that progress in improved sea turtle handling techniques and gear removal is being made by the PLL fleet to reach net mortality ratios of 13.1% for leatherbacks and 17.0% for loggerheads by the beginning of 2007 (the long-term targets). These annual performance targets are based on consistent, annual progress in 2004, 2005, and 2006. They are presented in Table 2.

TABLE 2. NET MORTALITY RATE PERFORMANCE STANDARDS.

Species	Assumed 3rd & 4th Quarters, 2004	Target for 1st Quarter, 2005	Target for 1st Quarter, 2006	Target for 1st Quarter, 2007 and onward
Leatherbacks	32.8%	26.2%	19.6%	13.1%
Loggerheads	21.8%	20.2%	18.6%	17.0%

To ensure that the net mortality performance targets are attained, NMFS will monitor post-hooking survival through 2006. If fleet-wide annual gear removal rates are not sufficient to meet the performance targets, action must be taken to offset the increased mortality rates and bring overall anticipated mortality down to the levels specified in Table 2. The June 1, 2004, BiOp specifically mentions the possibility of closing the entire Gulf of Mexico from April through September, if necessary, to offset increased mortality rates and bring overall anticipated mortality down to the levels specified in Table 2. However, overall, the timing and duration of a closure must be sufficient to offset, through reduced interactions, the effects of the higher post-release mortality associated with the poor gear

removal levels, and may be longer or shorter than six months. If a closure is needed, an alternative closure or closures may be substituted if equally effective at reducing leatherback sea turtle bycatch. Any time-area closure(s), if implemented, would be removed when data collected on gear removal and post-release survival indicate that fleet-wide interaction types and gear removal rates have met the post-release mortality performance targets specified above.

Incidental take is defined as take that is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity. Under the terms of section 7(b)(4) and section 7(o)(2) of the ESA, taking that is incidental to, and not intended as part of the agency action, is not considered to be prohibited, provided that such taking is in compliance with the RPMs and T & Cs of the ITS. The June 1, 2004, BiOp established an ITS based upon total takes over three-year periods, beginning in 2004. Table 3 contains the new ITS for Atlantic sea turtles in the HMS PLL fishery.

TABLE 3. ANTICIPATED INCIDENTAL TAKES OF LISTED SPECIES IN THE HMS PELAGIC LONGLINE FISHERY.

Species	Number Captured from 2004-2006	Number Captured each Subsequent 3-Year Period
Leatherback turtle	1981	1764
Loggerhead turtle	1869	1905
Green, Hawksbill, Kemp's ridley, and Olive ridley turtle, in combination	105	105

If the ITS is exceeded, such incidental take represents new information requiring reinitiation of consultation and a review of the RPMs that have been provided for possible modification.

Response to Comments

During the public comment period, individuals and groups provided comments on the DSEIS/RIR/IRFA and its proposed rule via letter, fax, E-mail, or participation at public hearings. The comments are summarized below, together with NMFS' responses. The comments and responses are categorized by major subject headings.

1. General Comments

Comment 1: Commenters indicated that oceanographic, biological and physical differences between the Northeast Distant (NED) area, south Atlantic, and Gulf of Mexico (GOM) must be taken into consideration. Specifically, commenters stated that the results of an experiment in the NED should not be used to project impacts or implement management measures in other areas, because there are differences in oceanographic conditions, water temperature, currents, thermoclines, turtle abundance, turtle sizes, fish abundance, and fish sizes.

Response: For three years, the Agency committed substantial resources to evaluating fishing gear modifications and strategies to reduce and mitigate interactions between endangered and threatened sea turtles and pelagic longline (PLL) fishing gear. The area for the research was the NED statistical reporting area in the Western Atlantic Ocean. Between 2001 and 2003, over 1,200 pelagic longline sets were made to test, among other things, the benefits of using large circle hooks. The research yielded robust and promising results. Based on that research, consideration of geographical differences, and other available information on sea turtle bycatch reduction efforts, described more in responses to Comments 2–5, the use of large circle hooks (as compared to ''J''-hooks) and careful release techniques are expected to be successful in reducing sea turtle interactions and mortality rates throughout the whole fishery.

Comment 2: Several commenters stated that the Agency must recognize differences in the prosecution of the PLL fishery in the NED, south Atlantic, and GOM. PLL vessels in the GOM frequently target yellowfin tuna (YFT) and other tuna species; PLL vessels in the mid-Atlantic often engage in mixed trips for smaller tunas (YFT and albacore), swordfish, dolphin, and wahoo; and, PLL vessels in the NED primarily fish for larger swordfish and bigeye tuna (BET). Commenters noted that there may be differences in the fishing gears used, fishing techniques, depth of gear deployed, prey species, target species, and socio-economic factors. For vessels fishing outside the NED, many of these comments opposed preferred alternative A3 in the DSEIS (18/0 offset circle hook with mackerel, or 18/0 non-offset circle hook with squid) and were supportive of non-preferred alternative A5 (16/0 hook with an offset not to exceed 10 degrees). Many commenters supported preferred alternative A10 in the DSEIS (18/0 offset or non-offset circle hook with mackerel or squid bait, respectively) for fishing in the NED.

Response: The U.S. PLL fishery for Atlantic HMS is a far-ranging fishery that targets swordfish, YFT, or BET tuna in different areas and in different seasons. Secondary target species include dolphin, albacore tuna, pelagic sharks, and several species of large coastal sharks. Permit holders range from Maine to Texas, and fishing techniques vary by region according to target species. Vessel operators may be opportunistic, switching gear style and making subtle changes, oftentimes during the same trip, to maximize economic opportunities. In addition, the economic characteristics of vessels fishing in New England (including the NED) and the Carribean regions differ from those fishing predominantly in the mid-Atlantic, south Atlantic and Gulf of Mexico regions. Economic studies confirm that PLL vessels fishing predominantly in New England and the Carribean regions generate approximately five times the amount of net revenues per trip when compared to vessels fishing predominantly in the mid-Atlantic, south Atlantic, and GOM regions (Porter *et al*, 2001).

Extensive public comment indicated that the proposed measures could cause severe economic hardship, leading to possible business foreclosures in the mid-Atlantic, south Atlantic, and GOM. Based upon public comment and a re-examination of data pertaining to reductions in bycatch and bycatch mortalities associated with various hooks and baits (see responses to Comments 3 and 5), the Agency has modified the final regulations to address geographical differences by allowing, outside the NED, either 18/0 circle hooks with an offset not to exceed ten degrees, or 16/0 non-offset circle hooks, and either squid or whole finfish bait. These modifications will provide additional flexibility to target species that are more frequently encountered outside of the NED. The final circle hook and bait regulations, and the requirements to possess and use sea turtle handling and release gears, are expected to significantly reduce sea

turtle interactions and mortalities throughout the PLL fishery. Therefore, to the extent practicable, this final rule minimizes adverse economic impacts on fishing communities, as required by National Standard 8 of the M-S Act, and complies with other applicable Federal law. However, as described in the June 1, 2004, BiOp, if the management measures contained in this final rule do not achieve certain specified levels of reductions in leatherback mortalities, the Agency must initiate a future rulemaking to consider other additional measures, consistent with the 2004 BiOp.

Comment 3: Additional research on circle hooks and baits, including their subsequent effects on turtle interactions, post-hooking mortality rates, and target species catches, should be undertaken in areas that more closely exemplify conditions in the south Atlantic and GOM, and the final regulations should be based on these studies.

Response: Existing scientific studies, including the NED research experiment, and GOM observer data support the use of large circle hooks and careful release techniques to reduce sea turtle interaction rates and mortality rates throughout the PLL fishery. Based upon a review of available information, the SEFSC's principal investigators for the NED research experiment have advised allowing the use of a 16/0 non-offset circle hook in the GOM and other areas outside the NED. Available data indicate potential adverse impacts of a larger hook on target species (particularly, yellowfin tuna) catches.

A significant reduction in loggerhead sea turtle mortality is anticipated through use of the 16/0 non-offset circle hook. Studies in the Azores PLL fishery in 2000 and 2001 (Bolten *et al.*, 2002) and in Canada (Javitech Ltd., 2002) showed a significant percentage of 16/0 circle hooks hooking loggerhead turtles in the mouth. Circle hooks improve the probability of survival after an interaction, relative to ''J''-hooks, because they usually hook in the jaw and are not swallowed; this appears to be true for many marine species and circle hook sizes (Lucy and Studholme, 2002). Observer data from the GOM (Garrison, 2003b), showing no loggerhead turtles observed captured on circle hooks, and a lower average catch rate of leatherback turtles on 15/0 and 16/0 circle hooks compared to 7/0 and 8/0 ''J''-hooks, support this conclusion.

Leatherback sea turtle interactions primarily result from ''foul hooking,'' *i.e.*, hooking in the flipper, shoulder, or armpit. Circle hooks are expected to reduce foul hooking because the point turns in towards the shank and is effectively shielded. The NED experiment demonstrated that 18/0 and 20/0 circle hooks reduce the number of turtles foul hooked by PLL gear. Canadian observer data (Javitech Ltd., 2002) and GOM observer data (Garrison, 2003b) also show reductions in catch rates of leatherback turtles on 16/0 circle hooks as compared to ''J''- hooks. SEFSC scientists expect that a 16/0 non-offset circle hook will be just as efficient as an 18/0 circle hook at reducing foul hooking of leatherback turtles, and possibly more efficient, because the gap between the point and the shank on a 16/0 hook is smaller than that of an 18/0 hook. The requirement that 16/0 circle hooks be non-offset is an additional precautionary measure to reduce the likelihood that the smaller hooks will get swallowed or lodged in a turtle's throat or esophagus, or result in foul-hooking.

This final rule, which allows the use of 16/0 or larger non-offset circle hooks outside the NED, is based upon the above-described studies and other data, which constitute the best available scientific information at this time. These measures are expected to have significant conservation benefits for sea turtles. However, the Agency will continue to monitor and conduct research to evaluate bycatch mitigation techniques and impacts on target and non-target species. In fact, there is research currently underway in the GOM to compare target catches using 16/0 and 18/0 circle hooks, but that information was not sufficiently developed in time to be incorporated in the analyses in the FSEIS prepared for this rule. The 2004 BiOp also requires additional research and/or analysis on the effects of different offsets, evaluation of the leatherback bycatch reduction, confirmation of the effectiveness of the hook and bait combinations, and improved data collection and reporting from observed trips to aid in completing these analyses.

Comment 4: Some commenters indicated that portions of the GOM and the Northeast Coastal (NEC) area should be closed to PLL fishing (as described in non-preferred alternatives A12, A13, A14, and A15 of the DSEIS) because sea turtles taken in those regions are larger than those taken in the NED, and because the hook and bait treatments tested in the NED are unproven in warmer waters.

Response: This final rule will require the use of large circle hooks and the possession and use of specific gear removal equipment. In addition, the Agency will engage in outreach and education efforts, and pursue training and certification in sea turtle handling and release protocols throughout the PLL fishery. These management actions are expected to provide significant conservation benefits to sea turtles of all sizes. Additional adaptive management measures, including consideration of a Gulf of Mexico or alternative closure(s), would be instituted if monitoring indicates that requirements set forth in the 2004 BiOp for this fishery are not being met.

Comment 5: Several comments relating to the data used to develop the DSEIS and proposed rule included: (1) Other studies such as the Azores study (Bolten *et al.*, 2002) and the Garrison analysis (2003) should have been included; (2) the NED data are preliminary and should not be relied upon; (3) the number of observed sea turtle interactions is probably too low; and, (4) there is no information in the DSEIS regarding the number of sea turtle mortalities. Several other data comments are discussed under ''protected resources issues'' below.

Response: The best scientific information available has been used in developing the final rule, including information from Bolten *et al.* (2002) and Garrison (2003). Hook and bait treatments that were found to be effective during the three-year NED research experiment will be directly applied to PLL fishing in the NED closed area. The NED experimental data are robust, and measures to be applied in the NED are expected to replicate the impressive bycatch reduction results that were obtained there. In other areas, slightly smaller (16/0 or larger), non-offset circle hooks, or 18/0 circle hooks with an offset not to exceed 10 degrees, will be required. These measures are supported by the studies and recommendations described in the response to Comment 3.

The number of observed sea turtle interactions is derived directly from trips with observers onboard (3.7 percent of sets were observed with 273 observed interactions in 2001; 8.9 percent of sets were observed with 335 interactions in 2002). The total estimated number of interactions is calculated by determining sea turtle catch per hook using observed sets, and then expanding that by the total number of hooks fished as reported in the mandatory PLL logbook. A total of 1,208 leatherback interactions were estimated during 2001, and 962 during 2002. A total of 312 loggerhead interactions were estimated during 2001, and 575 during 2002. Potential sources of bias and uncertainty in these estimates are provided in ''Estimated Bycatch of Marine Mammals and Turtles in the U.S. Atlantic Pelagic Longline Fleet

During 2001 - 2002,'' (Garrison, 2003a). That report estimates 13 loggerhead instantaneous mortalities (*i.e.*, dead when brought to the boat) and 0 leatherback instantaneous mortalities in 2001. For 2002, 0 loggerhead instantaneous mortalities and 33 leatherback instantaneous mortalities are estimated. Post-interaction mortality estimates are discussed in the 2004 BiOp.

2. Proposed Restrictions on Allowable Baits

Comment 6: Many commenters stated that requiring only Atlantic mackerel or squid bait, depending upon whether the hook is offset or not, would not provide enough flexibility to adapt to changing conditions that may occur during longer PLL fishing trips. Commenters stated that both types of baits should be allowed to be possessed and used. One commenter requested that there be no bait restrictions, stating that hook type, and not bait, is the most important factor in reducing sea turtle interactions. Several commenters stated that PLL vessels in the GOM typically utilize thread herring and Spanish sardines for bait, thus, requiring non-indigenous bait could result in adverse economic impacts due to the non-availability of such bait or potential reductions in the catches of target species. Other commenters stated the use of any finfish other than whole Atlantic mackerel could significantly reduce turtle conservation benefits.

Response: The final rule has been modified to allow the use of both Atlantic mackerel and squid bait inside the NED, and whole finfish and squid bait outside the NED, with specified circle hooks. The NED research experiment demonstrated that significant sea turtle conservation benefits may be obtained using large circle hooks with certain baits (Watson et al., March 2, 2004). Relative to the 9/0 ''J''-hook baited with squid, the combination of 18/0 circle hooks and mackerel bait reduced the loggerhead interaction rate by 86 - 90 percent, and the leatherback interaction rate by 65 percent. The 18/0 circle hooks baited with squid reduced the loggerhead interaction rate by 65 - 87 percent, and the leatherback interaction rate by 64 - 90 percent. In 2002, mackerel bait and squid bait were both tested on 9/0 ''J'' hooks to investigate the effect of bait on turtle interaction rates. When compared to squid bait, mackerel bait reduced loggerhead interactions by 71 percent, and leatherback interactions by 66 percent. Mackerel bait also increased swordfish catch but significantly reduced tuna catch on the control 9/0 ''J''-hooks, compared to squid. Because both mackerel and squid are effective at reducing turtle interactions, and there are differences in the effectiveness of the baits with regard to the target species catches, the final rule allows either mackerel and/or squid bait to be possessed and/or used in the NED, but only with 18/0 or larger circle hooks with an offset not to exceed 10 degrees. This modification will allow fishermen to adapt to changing conditions, and replicate the impressive bycatch and bycatch mortality reductions that were achieved in the NED experiment.

The response to Comment 3 explains the significant sea turtle conservation benefits that are anticipated by requiring the use of either 16/0 or larger non-offset circle hooks, or 18/0 circle hooks with an offset not to exceed 10 degrees outside the NED. To provide additional flexibility and to mitigate for potential adverse economic impacts associated with non-availability of Atlantic mackerel or reduced catches due to the use of non-indigenous baits, the final rule allows both whole finfish and squid bait to be used outside the NED, with either of the specified hook types. This rule, along with outreach, education, training and other related actions, are expected to have significant conservation benefits for sea turtles. See the response to Comment 4 for further explanation.

Comment 7: One commenter stated that observed PLL sets in the GOM for 1992 - 2002 showed that circle hooks with squid produced the highest interactions with leatherback sea turtles whereas circle hooks with fish (primarily dead Spanish sardines) had the lowest catch rates.

Response: While circle hooks baited with squid in the GOM did show higher leatherback interactions than circle hooks baited with fish, there were a very low number of circle hook sets that were baited with squid. Consequently, it is not possible to draw a statistically significant conclusion regarding bait effects from the GOM data (Garrison, 2003). The Agency will continue to examine the effects of bait type throughout the PLL fishery.

Comment 8: One commenter indicated that specifying only Atlantic mackerel or squid bait could result in the overfishing of these species.

Response: Atlantic mackerel (*Scomber scombrus*), shortfin squid (*Illex illecebrosus*), and longfin squid (*Loligo pealeii*) are managed by the Mid-Atlantic Fishery Management Council under the provisions of the Atlantic Mackerel, Squid and Butterfish Fishery Management Plan (FMP). Any landings of these species for bait in the PLL fishery must be in accordance with the provisions of this FMP. Atlantic mackerel are managed using an annual quota. Management measures for shortfin squid include limited entry, annual quota specifications, and trip limits when 95 percent of the annual quota is reached. Management measures for longfin squid include limited entry, seasonal quota specifications, and gear restrictions. As of January 2000, the Atlantic mackerel resource was not overfished, and overfishing was not occurring. The stock status of shortfin squid was unknown through 2002; however, overfishing was not likely to be occurring (NEFSC 37th SARC). Longfin squid were not likely to be overfished, nor was it likely that overfishing was occurring, as of 2001 (NEFSC 34th SARC). Because squid and mackerel are currently being effectively managed through the existing FMP, the Agency does not expect the management measures in this final rule to result in an appreciable increase in fishing effort for these species, or cause overfishing.

3. Proposed Restrictions on Allowable Hooks

Comment 9: The Agency received a wide range of comments regarding circle hooks, in general. One commenter stated that circle hooks will not reduce sea turtle bycatch or bycatch mortality, and that the existing data are too preliminary to be relied upon. Another comment stated that the recent increase in turtle interactions in the GOM was attributable to many vessels switching from circle hooks to small ''J''-hooks following the prohibition on live bait, and that the proper solution is to require circle hooks. Several commented that the most significant benefits to sea turtles would be realized by using circle hooks rather than ''J''-hooks, and that the size of hooks is a less important factor. One commenter opposed the use of circle hooks because they are ineffective at catching fish, are difficult to work with, take more time to remove, and may cause more injury to leatherback turtles than ''J''-hooks when they are removed. Finally, one commenter applauded the move away from ''J''-hooks towards circle hooks and requested that the Agency act as quickly as possible.

Response: Requiring the use of circle hooks and removing ''J''-hooks throughout the PLL fishery is an important step that will have significant conservation benefits for sea turtles. Several studies described above, including three years of research in the NED, have documented the effectiveness of circle hooks at reducing

bycatch and/or bycatch mortality of sea turtles. In addition, in the GOM, PLL fishermen deployed an appreciable amount of circle hooks for several years, and observer data from that area show that estimated leatherback and loggerhead turtle interactions were generally lower when circle hooks (16/0) were most frequently used (1992, 1998, and 1999), and generally higher when circle hooks (16/0) were least frequently used (1996, 1997, 2000, 2001, and 2002).

The NED experiment conducted 29 sets during 2003 to compare offset 16/0 circle hooks with 18/0 offset circle hooks. Although the results indicated higher interactions with the 16/0 offset hooks than with the 18/0 offset hooks, the Agency anticipates that allowing 16/0 hooks without any offset outside the NED will significantly reduce turtle mortalities, and could result in fewer turtle interactions involving foul hooking. The NED experiment additionally demonstrated that catches of target species can be increased or, at least, remain constant using circle hooks.

As with any new gear, there probably will be period of time during which fishing crews adjust to circle hooks. However, these hooks are not expected to be prohibitively difficult to work with, as some vessels already use them. The final rule additionally requires that pelagic longline vessels possess and use several pieces of sea turtle release gear, and adhere to careful handling and release protocols. When properly used, these gears will facilitate hook removal and reduce sea turtle injuries occurring as a result of interactions. Fishing crews should familiarize themselves with the proper use of the release gear and the careful release protocols, because the final rule requires the removal of as much fishing gear as possible without causing further injury to a sea turtle prior to its release.

Comment 10: A large proportion of comments were opposed to the use of 18/0 circle hooks outside the NED, primarily because they are too large to catch some target species, including small YFT, albacore tuna, dolphin, wahoo and other pelagics. For this reason, the commenters stated that requiring 18/0 circle hooks outside the NED would reduce catches and create substantial adverse economic impacts. Many of these comments were supportive of a requirement to use 16/0 circle hooks, as contained in non-preferred alternative A5 of the DSEIS. Some cited studies conducted in the Azores (Bolten *et al.*, 2002) and observer data in the GOM as evidence that a 16/0 hook would be effective at reducing turtle mortalities. Others stated that a 16/0 hook would pose less risk than an 18/0 hook at foul-hooking leatherback turtles, the species most commonly interacted with in the GOM, because of the smaller gap between the barb and the shank.

Response: As described in the responses to comments 1–5, the final management measures have been modified to allow the use of 16/0 or larger non-offset circle hooks outside the NED.

Comment 11: Many commented that requiring the use of only either flat or offset circle hooks, depending upon whether squid or mackerel bait is used, would not provide flexibility to adapt to changing conditions on longer PLL trips, thus both types of hooks should be allowed. One commenter stated that maintaining the sharpness of a flat (non-offset) circle hook is more difficult than with offset hooks and could potentially reduce catches if flat hooks (with squid) are used. To the contrary, others stated that offsetting a circle hook greatly reduces its design advantages and that the use of large mackerel bait may have confounded the results obtained with the offset 18/0 circle hook in the NED experiment. These commenters stated that, until a robust experimental design is established to test the impact on loggerheads of the 18/0 non-offset circle hook vs. the 18/0 offset circle hook, the final regulations should only allow for the use of 18/0 non-offset circle hooks.

Response: The NED research experiment concluded that there is no significant difference in model-based reduction rates due to non-offset 18/0 circle hooks with squid baits and offset 18/0 circle hooks with squid baits for loggerhead and leatherback sea turtles. Therefore, the final regulations allow vessels to fish within the NED, provided they comply with certain hook and bait requirements. Vessels are limited, at all times, to possessing and/or using only 18/0 or larger circle hooks with an offset not to exceed 10 degrees, and Atlantic mackerel and/or squid bait. Vessels fishing outside the NED are limited, at all times, to possessing and/or using 18/0 or larger circle hooks with an offset not to exceed 10 degrees, and/or 16/0 non-offset (i.e., flat) circle hooks. The requirement that 16/0 circle hooks be non-offset is a precautionary measure to reduce the likelihood that the smaller hooks will get swallowed or lodged in a turtle's throat or esophagus, or result in foul-hooking.

Comment 12: Commenters requested that the requirement to use corrodible hooks in the PLL fishery be removed, because there is no scientific or biological rationale to justify their use.

Response: The requirement to use corrodible hooks and crimps was implemented as part of the Reasonable and Prudent Alternative (RPA) in the June 14, 2001, BiOp (2001 BiOp). It is intended to improve the survival of sea turtles that are hooked when external hooks cannot be removed, or when hooks are deeply embedded and no attempt to remove the hook can be made. The Agency intends to collect and analyze additional information on hook removal rates resulting from implementation of this final rule and, depending upon those rates, will consider removal of the requirement to use corrodible hooks in a future rulemaking.

4. Sea Turtle Release Gear and Careful Handling Protocols

Comment 13: Most of the comments received concerning the requirements to possess sea turtle release gear and to adhere to careful handling protocols (alternative A16) were supportive of the proposed measures. Several commenters suggested either voluntary or mandatory training (in-person, online, or via other media such as CD, DVD, or videotape) for captains and/or crew members to improve the effectiveness of the gear and compliance with the protocols. Another suggestion was that the Agency provide either a certificate of completion or attendance and that a person or persons possessing the certificate be required onboard all PLL vessels.

Response: The requirements to possess and use sea turtle release gear and to adhere to careful handling protocols are important components of this final rule. Under this rule, an Agency-approved document describing sea turtle careful release protocols is required to be onboard each PLL vessel. Fishing captains and crew members should familiarize themselves with the proper use of release gear and the protocols, as the final rule requires removal of as much gear as possible without causing further injury to a sea turtle prior to its release. Consistent with the 2004 BiOp, the Agency has established a POC to, among other things, answer questions that fishermen may have regarding the release gear and handling protocols. POC information is provided in this final rule, and also on the HMS website at *http://www.nmfs.noaa.gov/sfa/hms*. In addition, an educational video mpeg file entitled ''Removing Fishing Gear from Longline Caught Sea Turtles'' is currently available at: *http://www.sefsc.noaa.gov/seaturtlefisheriesobservers.jsp*, and will be distributed to PLL vessels during the

summer of 2004. This video mpeg demonstrates the proper use of the required and recommended release turtle gear in the rule. The Agency will conduct additional education and outreach efforts and pursue mandatory training and certification for the fishery. Workshops or other training programs are already under consideration in the development of Amendment 2 to the HMS FMP.

Comment 14: Several commenters stated that the ''turtle tether'' should be required onboard all PLL vessels in the final regulations, rather than only recommended in the protocols.

Response: Further refinements in the design standards and procedural protocols for use of the ''turtle tether'' are still being developed. After further development and testing, the Agency may reconsider requiring the turtle tether in a future rulemaking.

Comment 15: Commenters stated that the proposed regulations only generally address the removal of hooks from sea turtles, and do not specify how to bring turtles onboard, how to restrain them, and how to release them.

Response: Because of the many contingencies that may arise when a turtle is encountered, the final rule does not attempt to address every possible contingency. Rather, the rule specifies certain important requirements, such as removing as much gear as possible and releasing the turtle without causing further injury, and refers to the required ''Careful Release Protocols'' document for additional guidance and requirements. As noted in the response to Comment 13, the Agency will conduct outreach, training, and other educational efforts to demonstrate the safe handling and careful release of turtles.

Comment 16: Some commenters wrote that the proposed requirements to possess and utilize sea turtle handling and release gears (alternative A16) were not reasonable, because the gear is difficult to obtain and costly.

Response: Sea turtle handling and release equipment will impose initial compliance costs estimated to range from $485.00 - $1056.50, depending upon whether the equipment is fabricated from available materials or purchased from suppliers. The design standards for line clippers have changed only slightly, and one model that meets the existing standards also meets the new design standards. The design standards for dipnets have similarly only been slightly modified, by specifying the length and carrying capacity of the handle. Other required equipment, including bolt cutters, monofilament cutters, boat gaffes, and needle-nosed pliers are relatively inexpensive and available at most hardware or boating supply stores. Dehookers are also available from commercial suppliers. A standard automobile tire to hold boated turtles should not be difficult to obtain. Finally, a variety of mouth openers/gags have been approved, specifically to reduce costs. For example, the two required mouth openers/gags could consist of a block of hard wood and two pieces of rope covered with hose, provided they meet the design specifications in the final rule. Some of the release equipment can be fabricated from readily available materials in order to reduce costs. The Agency acknowledges that the requirements to possess and use this equipment according to the ''Careful Release Protocols'' document impose both financial and logistical burdens on the public; however they are essential for the PLL fleet to reduce sea turtle mortalities.

5. Environmental Impacts and Analyses

Comment 17: Several commenters requested that the Agency prohibit pelagic longlines (alternative A11), implement large ''no-fishing'' areas for pelagic longlines (alternatives A12, A13, A14, & A15), prohibit swordfishing in the Atlantic basin, or allow only rod and reel or handline fishing for HMS, to provide greater protection for sea turtles and other marine life.

Response: Prohibition of PLL gear was considered but not further analyzed, or selected, because other effective sea turtle bycatch and bycatch mortality reduction alternatives are available. See response to Comment 4 regarding possible, future consideration of closures. In addition, prohibition of PLL fishing is not needed to rebuild the Atlantic swordfish stock. Overfishing is not occurring, and the stock is in recovery with biomass at the beginning of 2002 estimated to be at 94 percent (range: 75 to 124 percent) of the biomass needed to produce maximum sustainable yield (MSY). This estimate is up from an estimate of 65 percent of MSY, as provided in the 1998 assessment. The 2001 fishing mortality rate was estimated to be 0.75 times the fishing mortality rate at MSY (range: 0.54 to 1.086) (SCRS, 2002).

It is important to emphasize that unilateral efforts by the U.S. to protect sea turtles and HMS in the Atlantic Ocean would likely be insufficient to rebuild populations of these species, because the U.S. fleet constitutes only a small part of the international fleet that competes on the high seas for catches of swordfish and tunas. In fact, U.S. PLL landings account for approximately 5.4 percent of total Atlantic landings of HMS (SCRS, 2003). Therefore, the successful adoption and timely implementation of circle hook and release gear technology by the U.S. PLL fleet is of paramount importance. U.S. industry support in demonstrating the success of these technologies, both in reducing turtle mortalities and in maintaining catches of target species, will be vital in future efforts to convince other foreign fishing nations to implement similar management measures.

Comment 18: Several commenters stated that the ''exportability'' of circle hook and release gear technology is the most important aspect of this rule, because U.S. PLL turtle bycatch is relatively small compared to that of foreign vessels Atlantic-wide. If the proposed one hook-type/one bait requirements cause U.S. business foreclosures or economic losses, the technology would likely not be ''exportable'' to foreign nations. The unintended consequence of the proposed regulations could be increased sea turtle interactions as foreign PLL vessels, which currently account for the largest percentage of sea turtle interactions, increase fishing effort. Similarly, if some U.S. PLL vessels go out of business or reflag to foreign nations, the U.S. could lose part of its ICCAT swordfish quota to foreign nations that do not have such protective requirements, and sea turtle interactions by foreign PLL vessels could increase. Therefore, these commenters stated that it is imperative to implement a final rule that does not result in business closures and is transferable to other ICCAT nations. Some commenters suggested that non-preferred alternative A5 in the DSEIS (16/0 circle hook with an offset not to exceed 10 degrees, outside the NED) would provide an acceptable compromise for both domestic and foreign vessels.

Response: As discussed above, international cooperation is critical to reduce overall Atlantic sea turtle interactions and mortalities. For this reason, the Agency committed substantial financial resources and scientific expertise to the NED research experiment to develop cost-effective technologies to reduce sea turtle interactions and mortalities, without negatively impacting catches of target species. The U.S. already has shared the experimental results at ICCAT and in other international fora to promote and encourage sea turtle bycatch reduction measures in international fisheries. In response to public comment, the Agency re-examined the preferred

alternatives and modified the final management measures to provide flexibility regarding the use of offset and non-offset hooks, bait requirements, and hook sizes outside the NED. These modifications are expected to reduce turtle interactions and mortalities significantly, and demonstrate to foreign nations that adoption of circle hook technologies is feasible and will have positive benefits for both sea turtles and the PLL fishery.

Comment 19: Several commenters stated that the PLL fishery is only one of many factors affecting the continued existence of sea turtles. Other factors include: chemical water pollution; habitat loss; poaching of nesting sites; artificial beach lighting; shrimp trawling; predation by pets; driving on beaches; beach sweeping activities; outboard motor emissions, and speeding motor boats. Commenters noted that these other factors receive little regulatory attention, yet the PLL fishery is being required to comply with perceived unnecessarily strict proposed regulations. One commenter suggested that turtle hatcheries should be used to augment turtle populations.

Response: NMFS and the U.S. Fish and Wildlife Service (USFWS) share responsibility for threatened and endangered sea turtles under a Memorandum of Understanding implementing the ESA. In general, marine-related activities, such as fishing, are within the purview of NMFS, whereas terrestrial activities are within the purview of the USFWS. The ESA requires that federal agencies ensure that the actions that they authorize, fund or carry out do not jeopardize the continued existence of listed species. If there is no federal agency nexus to a proposed action, the action is not subject to section 7 consultation and the production of biological opinions under the ESA. Thus, this final rule focuses upon the protection of adult and sub-adult turtle populations in the marine environment that are affected by fishing activities authorized by this Agency. Other provisions of the ESA, or other laws, may be applicable to other actions that pose threats to sea turtles. For example, recovery plans for leatherback and loggerhead sea turtles have been in place for several years. Many of the activities mentioned by the commenters are addressed within these recovery plans, including marine pollution, habitat protection, beach lighting, beach nourishment, protection of nesting sites, egg poaching, beach driving, and beach sweeping. The management measures contained in this final rule are expected to reduce significantly mortality attributable to pelagic longlines, both domestically and, through export of circle hook technologies, internationally.

Comment 20: One commenter raised concerns that the sea turtle incidental take statement (ITS) was exceeded, even with the NED closed.

Response: Recent increases in sea turtle interactions occurred mainly in the GOM and other areas outside the NED. This final rule would prohibit ''J''-hooks and require gear modifications and the use of release gear throughout the entire fishery, and is expected to have significant conservation benefits for sea turtles. Because of the termination of the NED experiment, this rulemaking, and the exceedance of the ITS from the 2001 BiOp, the Agency reinitiated consultation on the fishery. The new consultation, finalized in the 2004 BiOp, analyzed the circumstances and potential causes of the exceedance, as well as the expected impacts of the fishery on sea turtle populations, and is incorporated into this final rule.

Comment 21: A commenter stated that the number of boats fishing in the NED could increase beyond the 12 vessels that were analyzed in the DSEIS, because of a recent bilateral agreement that would allow U.S. vessels to land their catch in Canada.

Response: Data over the last six years indicate that less than 12 vessels, on average, have fished in the NED. The Agency will continue to monitor changes in the fishery and, if a significant increase in the number of vessels occurs in the NED, will take other action as needed. Moreover, sea turtle interactions have been documented throughout the PLL fishery. As overall effort in the PLL fishery is restricted by limited access permits, any additional fishing effort in the NED would necessarily result in less fishing effort elsewhere. Furthermore, vessels fishing in the NED will be required to use larger circle hooks than vessels fishing outside the NED.

6. Social/Economic Impacts and Analyses

Comment 22: Many commenters stated that there would be potentially reduced revenues from the preferred alternatives due to: (1) the lack of flexibility for fishermen to select various hook and bait combinations; (2) potentially reduced catches of target species, both inside and outside the NED, due to the proposed 18/0 circle hooks; and, (3) potentially reduced catches outside the NED due to the proposed ''exotic'' baits (*i.e.*, squid or Atlantic mackerel only). Several commenters stated that more concern should be focused on the potential loss of jobs and social costs. Regarding the economic analyses in the DSEIS/RIR/IRFA, two commenters stated that the ex-vessel prices presented in the analyses were not up to date. Another commenter stated that the analyses overstate potential increases in target catches and understates potential losses in target catches. Commenters also requested that the following additional factors be considered: (1) overhead costs will increase because of the need to buy new hooks and more expensive, non-indigenous baits outside the NED; (2) there would be irretrievable lost costs because existing inventories of fishing hooks would become obsolete; and, (3) U.S. PLL fishermen could be put at a competitive disadvantage to foreign vessels because of potentially increased costs and decreased revenues.

Response: As explained in the responses to Comments 1–12, the Agency has modified the final rule, in response to public comment, to provide more flexibility regarding baits, offset and non-offset circle hooks, and minimum hook sizes outside the NED. However, pursuant to the 2004 BiOp, additional rulemaking may be necessary to consider a new time and area closure(s), which could have adverse economic impacts. The economic impacts of such a closure, if necessary, would be analyzed and addressed in that rulemaking.

In response to the comment that the IRFA used outdated ex-vessel price information, the Agency has updated the RIR and FRFA using actual 2002 ex-vessel prices. The IRFA utilized 2001 ex-vessel prices adjusted to 2002 dollars, using the Consumer Price Index on-line adjustment calculator. The result of this adjustment is that the 2002 annual gross vessel revenue estimate used in the economic analyses has been lowered from $187,074 to $178,619, due to generally lower ex-vessel prices received in 2002.

With regard to estimated potential losses or gains in target species catches and ex-vessel revenue, the estimated changes in catches were derived directly from the results of the NED research experiment and then multiplied by ex-vessel prices to estimate changes in ex-vessel revenue. The DSEIS/RIR/IRFA and final documents each provide a range of impacts to illustrate the variability associated with the different hook and bait combinations and their effects on catches of target species. A range of economic impacts is necessary because the final regulations provide flexibility in the choice of different hook and bait combinations. The ranges of impacts associated with each alternative

in the FSEIS have changed somewhat from the ranges that were provided in the DSEIS. This is because, since publication of the DSEIS, the reduction rates associated with experimental treatments (hook and bait combinations) have been standardized to control for several variables, including sea surface temperature, daylight soak time, total soak time, vessel effect, and pairing effect in case of matched-paired hook types per set. Also, as described above, the estimate of annual gross vessel revenue changed.

This action would result in initial compliance costs associated with the purchase of new hooks (between $675.25 - $1,650.00 for 2,500 18/0 hooks, and $697.50 - $1,241.75 for 2,500 16/0 hooks). However, after initial hook purchase, replacement costs for circle hooks are expected to be comparable to, or less than, the replacement costs for ''J''-hooks. The DSEIS originally estimated annual hook costs at approximately $20,176 per vessel for a years supply. However, this estimate has been removed from the FSEIS because not every hook is expected to be lost on every set. NMFS acknowledges that there may be irretrievable lost costs due to existing inventories of ''J''-hooks becoming obsolete. However, a 30–day delay in the effective date of the final measures outside the NED may help vessel owners retrieve some of the costs associated with the prior purchase of ''J''-hooks by providing time to use them. The compliance costs for the purchase of release equipment are estimated to range from $485.00 to $1056.50. As discussed in the response to Comment 16, some of the release equipment can be fabricated from readily available materials in order to reduce costs.

While there are short term costs associated with the final rule, this action is not expected to place U.S. PLL vessels at a competitive disadvantage relative to foreign vessels. If fishermen choose an appropriate combination of circle hooks and bait, the NED research has shown that catches of target species can be increased or, at least, remain constant by using circle hooks.

Comment 23: Several commenters stressed that it is important for NMFS to reopen the NED to PLL fishing (as contained in alternatives A6, A7, A8, A9, and preferred alternative A10 of the DSEIS), because several vessels are very dependent upon income derived from fishing in that area.

Response: This final rule will allow PLL vessels to fish in the NED closed area, provided that they comply with specified hook, bait, and release gear requirements that were proven to be effective at reducing sea turtle interactions and mortalities during the three-year NED research experiment.

Comment 24: One commenter stated that the Community Profiles section of the DSEIS relies upon old data. For example, an annual Blessing of the Fleet no longer occurs in one fishing community.

*Response:*The Community Profiles sections of the DSEIS and FSEIS (Chapter 9) draw upon a variety of sources, including census data, logbook data, local Chamber of Commerce information, academic studies, and professional observations. Information contained in the DSEIS and FSEIS constitute the best available information at this time.

Comment 25: A commenter stated that the cost-earning analyses are outdated and should be corrected so that the Agency can properly evaluate the economic impacts of its regulations.

Response: The economic analyses in the DSEIS and FSEIS use the best available information. The Agency strives to improve its information collection, and in 2003, initiated mandatory cost-earnings reporting for selected vessels, specifically to improve the economic data available for all HMS fisheries. However, this new economic information was not available at the time of preparation of the DSEIS or FSEIS, because the data are still being collated and checked for accuracy. Additional economic data, including cost and earnings information, will continue to be collected from vessels to further evaluate the impacts of this final rule.

7. Additional Comments Regarding the Alternatives and Other Management Measures

Comment 26: Several commenters expressed support for the proposed regulations (preferred alternatives A3, A10, and A16 in the DSEIS), stating that they would be effective at reducing sea turtle bycatch and post-hooking mortality. One commenter stated that the measures provide the most environmentally advantageous and socially just approach to lessening impacts on sea turtles while safeguarding human interests. The proposed regulations are based upon three years of meticulous research and should provide a commonsense and practical model for both domestic and foreign PLL fleets.

Response: As discussed above, the proposed measures have been modified after considering public comment, the NED experiment, and other available information. The final rule is expected to have significant ecological benefits while mitigating for potentially adverse economic impacts. Successful implementation of this rule will provide a catalyst for promoting the adoption of similar measures by foreign fishing nations.

Comment 27: Many commenters opposed the continued use of traditional ''J''-hooks (contained in alternatives A1, A4, and A9 of the DSEIS), because they do not reduce the bycatch and bycatch mortality of sea turtles.

Response: Under this final rule, ''J''-hooks will no longer be allowed in the U.S. Atlantic PLL fishery.

Comment 28: Several commenters indicated that other, more general, fishery-related factors should have been examined in the DSEIS, such as further efforts to eliminate overfishing of swordfish and tunas and an overall reduction in the number of PLL permits.

Response: The purpose of this rulemaking is to reduce interactions with, and post-release mortality of, threatened and endangered sea turtles in the PLL fishery. Addressing overfishing of HMS and the permitting of PLL vessels is beyond the scope of this action; however, these issues are being addressed in other actions. Management and conservation of Atlantic HMS requires international cooperation. The U.S. participates in negotiations at the International Commission for the Conservation of Atlantic Tunas (ICCAT) to develop recommendations on quota allocations and other measures. As part of the international rebuilding efforts, the U.S. implements ICCAT-adopted recommendations. The Agency has issued a proposed rule to implement an ICCAT swordfish quota recommendation (68 Fed. Reg. 36967 (June 30, 2003)), and in Amendment 2 to the HMS FMP, currently in development, will examine additional HMS management measures, including permitting issues.

Comment 29: Several commenters suggested that other alternatives should have been considered in the DSEIS including: (1) allowing nighttime longline sets only; (2) using water temperature guidelines to restrict PLL fishing activity; (3) implementing 100–percent observer coverage and a hard cap on turtle takes, whereby the PLL fishery would be closed if the turtle cap is reached; (4) ''real time'' observer reporting to monitor for ITS exceedances; and (5) implementing effort controls in the NED on numbers of vessels, trips, sets, or hooks. One commenter stated that effort controls are needed because of the possibility of increased effort in the NED resulting from a recent agreement that would

allow U.S. vessels to land fish in Canada.

Response: Several alternatives mentioned in this comment, including 100 percent observer coverage, a hard cap on turtle takes, and limits on numbers of sets, were recently implemented in the shallow-set component of the Hawaii-based longline fishery. There are notable differences between the Hawaii-based and Atlantic PLL fisheries. For example, the Hawaii-based shallow-set fishery is predominantly a swordfish fishery. In the Atlantic Ocean, however, swordfish and tuna PLL fishing is generally managed as a single fishery, with the exception of quotas, size limits, retention limits, and other species-specific measures, because the Atlantic PLL fleet is mobile and may target a variety of species on the same trip. Because sea turtles are regularly captured on both swordfish sets and tuna sets in the Atlantic Ocean and GOM, management measures are necessary for the PLL fishery as a whole, regardless of target species. Another difference is that the Atlantic fishery is managed under certain species and country-specific ICCAT quotas, whereas the Hawaii fishery is not.

An alternative prohibiting daytime sets was not considered because the NED research experiment and the Azores study ((Bolten *et al.*, 2002) both found that loggerheads are becoming hooked mainly during daylight, and the NED experiment found that leatherbacks become hooked during the night. A prohibition on either daylight or nightime sets would not be effective at protecting both of these species. Therefore, this alternative was not included in the DSEIS, especially when other measures (*i.e.*, circle hooks) are available.

For enforcement, operational, administrative, and other reasons, the other suggested alternatives were not included in the DSEIS. Although turtle catch rates can be influenced by water temperature, it would be extremely difficult to enforce regulations restricting vessels to fishing within certain specified temperatures. In addition, a ''real time'' hard cap on the number of turtle takes is not practicable without 100 percent observer coverage. At this time, it would be operationally difficult, and expensive, to implement 100 percent observer coverage for the 148 active PLL vessels fishing in the Atlantic Ocean and GOM, because this is a large geographical area with several remote ports. In 2002, observer coverage averaged 8.9 percent (NED - 100 percent, non-NED - 3.7 percent), and coverage has averaged 3.6 percent for the years 1995 - 2001. The Agency is continuing to explore options in Amendment 2 to the HMS and Billfish FMPs to enhance existing observer coverage, including industry funding, increased permit fees, and quota set-asides. The Agency also will endeavor to improve its monitoring in other ways. The VMS requirement for all PLL vessels, implemented in September 2003, may provide the ability to gather more timely information about apparent effort. In addition, the Agency will take steps to enhance its monitoring of turtle interactions.

Fishing effort controls are not being implemented in the NED, at this time, because sea turtle interactions occur throughout the Atlantic basin. The final regulations requiring circle hooks and release equipment throughout the fishery are anticipated to have significant turtle conservation benefits. As discussed in the response to Comment 4, the Agency also will engage in outreach, education, and training activities and take further action, as necessary, to conserve and protect sea turtles.

Comment 30: A commenter indicated that there was no alternative in the DSEIS that would keep the NED closed and require circle hooks, bait requirements, and release equipment in the remainder of the fishery.

Response: The DSEIS and FSEIS include alternatives that would impose hook and bait and release gear requirements on the Atlantic pelagic longline fishery and keep the NED closed. Specifically, in Section 4.0 of the FSEIS, the analyses for alternatives A2 - A5(b) indicate the ecological, economic, and social impacts of requiring circle hook and bait requirements for the fishery, excluding the NED.

Comment 31: A commenter suggested that a small number of ''J''-hooks (less than 30) should be allowed to accommodate a handline fishery by PLL vessels when fish are schooling.

Response: The final regulations do not allow any ''J''-hooks to be possessed and/or used onboard HMS PLL vessels. To allow any ''J''-hooks would compromise the enforceability and effectiveness of this rule. The final regulations have been modified to provide more flexibility with regards to allowable circle hook and bait combinations, and circle hook sizes outside the NED. The required use of circle hooks throughout the PLL fishery is a significant and important step that will have significant conservation benefits for sea turtles.

Comment 32: One commenter stated that the Agency had indicated that the goal of the rulemaking is to reduce interactions below the ITS, yet the June 14, 2001, BiOp stated that the objective is to reduce mortalities of sea turtles. Because there were no dead sea turtles in the NED experiment, alternative A5 in the DSEIS (16/0 hooks outside the NED) should be adopted because it would be effective at reducing mortalities.

Response: Because of the recently concluded NED experiment and the exceedance of the ITS in the 2001 BiOp, the Agency reinitiated consultation and began developing a proposed rule using the ITS as an initial guide in developing its alternatives. Management actions should first try to eliminate or reduce the likelihood of interactions between the fishery and sea turtles. For interactions that cannot be avoided, management actions should reduce the likelihood of sea turtles being injured or killed during, or as a result of, the interaction. These reductions must be made so that the fishery is not jeopardizing the continued existence of listed species. The mandatory possession and use of circle hooks and careful release gear, along with training and certification programs are expected to accomplish these objectives in the long-term, while the adaptive management strategies outlined in the RPA in the 2004 BiOp are expected to help ensure that these objectives are met in the short-term. As noted above, the final rule has been modified to allow the use of 16/0 or larger, non-offset circle hooks outside the NED.

8. Bycatch Issues

Comment 33: Many commenters recommended circle hooks, bait restrictions, release gear requirements, and other similar or equivalent management measures for recreational fisheries to reduce bycatch.

Response: The bycatch of fishery resources, marine mammals, sea turtles, sea birds and other living marine resources has become a central concern of the commercial and recreational fishing industries, resource managers, conservation organizations, scientists and the public, both nationally and globally. Accordingly, the Agency recently announced a National Bycatch Strategy to reduce bycatch through fishing gear improvements, standardized reporting, education and outreach. As part of that strategy, the HMS Management Division has identified the improvement of recreational fishery data and angler education as items to be considered in Amendment 2 to the HMS and Billfish FMPs. In addition, the Agency has established an angler outreach program

to promote the use of circle hooks in the recreational fishery.

Comment 34: Several commenters stated that requiring an 18/0 circle hook with squid and/or mackerel could increase the bycatch of other non-target species, including billfish, bluefin tuna and large coastal sharks. There was also a concern that levels of bycatch in the PLL fishery, including seabirds and marine mammals, are too high regardless of hook and bait treatments, and that these interactions should be further considered before implementing final regulations.

Response: As described above, the Agency recently announced a National Bycatch Strategy to further reduce bycatch through fishing gear improvements, standardized reporting, education and outreach. Other initiatives underway include the U.S. Plan of Action for Reducing the Incidental Catch of Sea Birds in Longline Fisheries, which was jointly developed by this agency, the U.S. Fish and Wildlife Service, and the Department of State. The plan involves conducting an assessment of longline fisheries to determine if a seabird bycatch problem exists, and implementing measures to reduce impacts on seabirds to the maximum extent practicable. Because interactions with seabirds appear to be relatively low in Atlantic HMS longline fisheries, measures have not been implemented. This Agency will continue to monitor bycatch in the PLL fishery to determine if any of the measures contained in this final rule contribute to increased levels of bycatch of billfish, bluefin tuna, large coastal sharks, seabirds, or marine mammals.

9. Technical and Implementation Issues

Comment 35: Some commenters recommended redefining circle hooks by specifying the allowable gap between the hook point and the hook shank, providing a minimum length, specifying that the hook should be generally circular in shape, and not including a reference to the gauge of the wire (e.g., 16/0 or 18/0) used in the hook.

Response: The final rule has been clarified to specify the allowable gap between the hook point and the shank and a minimum length, and to specify that the required hooks should be generally circular or oval-shaped from point to shank. A gauge specification is being retained in the final regulations because the NED research experiment tested hooks of different gauges, and because fishing hooks are typically referred to by their gauge size. However, in recognition that there may be some variability, the final rule provides clarification of overall size dimensions, and the preamble of the final rule identifies circle hooks by manufacturer and model number that are known to meet the dimensions.

Comment 36: Numerous fishermen commented that they would not be able to obtain an adequate supply of the proposed circle hooks in a timely manner.

Response: The Agency considered delaying the effective date of the final regulations beyond 30 days, for vessels fishing outside the NED. However, due to the urgent need to reduce turtle interactions, an additional delay is not possible. An adequate supply of circle hooks for at least a few trips is expected to be available by the effective date of this rule. Hook manufacturers have recently increased production of circle hooks in response to the recent implementation of a similar rule in Hawaii.

10. Protected Resources Issues

Comment 37: Commenters stated that the June 14, 2001, BiOp and its associated incidental take statement (ITS) are not based upon the best available science. One commenter stated that the BiOp should be based upon the population status of southern loggerhead turtles, rather than the northern population which the Agency is trying to protect. Also, the 2001 BiOp incorrectly states that 100 percent of sea turtle interactions in the NED are with the northern nesting population. Recent DNA testing shows that over 80 percent of NED loggerhead interactions were with turtles originating from the southern nesting population, which is increasing at 4 percent a year. In addition, loggerhead sea turtle population data should not be used to develop the leatherback sea turtle ITS. Some commenters stated there is no modeling of loggerhead and leatherback sea turtle populations, so the population estimates are uncertain.

Response: As reflected in comments 37–40, the Agency received public comments directed at the 2004 BiOp. The Agency is not required to provide for, or respond to, public comments while developing a BiOp. However, to the extent that these comments relate to the analyses required under the National Environmental Policy Act (NEPA), responses are provided below.

The June 1, 2004, BiOp and associated ITS supercede the previous opinion and analyze pertinent information related to this rulemaking. The information in the 2004 BiOp represents the latest, best available science, and has undergone numerous levels of review. The opinion analyzes potential impacts on the loggerhead species as a whole, with attention paid to the impacts on the individual subpopulations, each of which are important to the survival and recovery of the species and require protections in order to ensure the species' future. Based upon data from the NED research experiment, and the fact the fishery is widespread throughout the pelagic waters of the Atlantic and GOM, it is assumed that the overall interaction of loggerhead sea turtles with the pelagic longline fishery is in proportion with the overall stock sizes of each nesting aggregation. That is, the fishery is not believed to be affecting any stock disproportionately, which was a factor considered when the threat of any individual stock being extirpated was examined. In addition, the latest nesting trend data for the South Florida nesting assemblage indicate that there is no discernible trend in the population. The uncertainty of population estimates and trends are acknowledged and taken into account.

Comment 38: Several commenters stated that post-hooking mortality estimates of sea turtles were overestimated in the ITS, and should be revised based upon more recent data from a mortality workshop that the Agency held. Other commenters stated that the use of Spanish research studies to develop post-hooking mortality estimates in the BiOp is not appropriate. The current estimates of post-hooking mortality are based upon the use of ''J''-hooks, which are more likely to cause gut-hooking than circle hooks. Circle hooks will better ensure that hooked and entangled sea turtles survive. These factors should be considered in the new BiOp.

Response: The 2004 BiOp uses refined post-interaction mortality estimates from the January 2004, Workshop on Marine Turtle Longline Post-Interaction Mortality. These estimates take into consideration hooking locations, which are largely a function of the hook type. The Spanish mortality studies were only one of many data sources considered by the participants of the workshop, and any potential limitations of those studies were understood and taken into account.

Comment 39: Commenters stated that sea turtle interactions are increasing because their populations are increasing. Therefore, the BiOp and proposed regulations should consider this as baseline information.

Response: The baseline information analyzed in this rulemaking and the 2004 BiOp includes the latest sea turtle population and trends data.

Comment 40: Commenters questioned how the PLL fleet could be found to be

jeopardizing the continued existence of leatherback and loggerhead sea turtles when the fleet accounts for hundreds of interactions, while the shrimp fleet accounts for over 100,000 turtle interactions.

Response: Fisheries may impact life stages of sea turtles in different ways and have varying bycatch and bycatch mortality reduction measures available depending on the gear used. This rulemaking focuses on the impacts of the PLL fishery on protected sea turtles and expected reductions in interactions and mortality from the preferred alternatives. The Southeast shrimp trawl fishery underwent a separate consultation which resulted in a December 2, 2002, biological opinion. Although the shrimp fishery interacts with more sea turtles, the December 2002 biological opinion determined that revised regulations on Turtle Excluder Devices (68 FR 8456, February 21, 2003) would be expected to reduce related mortality significantly in that fishery. See the December 2002 BiOp for specifics of the shrimp trawl consultation. The June 1, 2004, BiOp prepared for this rulemaking found jeopardy for leatherbacks only, as a result of the expected levels of mortality. The RPA in the June 2004 BiOp is expected to reduce mortality to levels which will not jeopardize the continued existence of the species.

11. Other Comments

Comment 41: Commenters stated that the proposed regulations violate National Standard 4 of the M-S Act, because they discriminate between residents of different states, especially North Carolina, where there are few sea turtle interactions off the coast and residents catch smaller fish.

Response: The proposed and final management measures consist of conservation measures that are intended to protect threatened and endangered sea turtles. These measures are consistent with National Standard 4 because they apply bycatch reduction and mitigation requirements throughout the whole PLL fishery, are not direct allocations of fishing privileges, and do not discriminate between residents of different states. Circle hooks are necessary for U.S. PLL vessels for the entire Atlantic basin because turtle interactions can, and do, occur over this entire area, albeit at different rates. The PLL fleet is generally mobile, so vessels may opportunistically choose to fish in areas where any potential adverse impacts are lower. Fishery management actions often have inherently differential geographic impacts, and these are largely due to differences in species composition and abundance. In consideration of this, the Agency has modified the final rule to account for some geographical variation in the PLL fishery by implementing different management measures within the NED closed area and in other areas.

Comment 42: One commenter stated that the Agency has not adequately analyzed the cumulative effects of this action on PLL vessels, as required by NEPA.

Response: The DSEIS and FSEIS have adequately analyzed the cumulative effects of this action on PLL vessels. The analyses describe all major management actions that have occurred since 1985 and the potential effects of this action when added to other past, present or reasonably foreseeable future actions.

Comment 43: Commenters stated that there was no scoping process as required under NEPA and that the rulemaking was proceeding too quickly with little consideration being given to public concerns. One commenter requested consideration as an ''applicant'' in the development of the BiOp. Other commenters requested more public involvement in the ESA consultation, specifically, copies of the draft and final BiOp for the proposed rule

Response: Although scoping hearings can be beneficial, they are not required under NEPA. Because of the urgent need to implement sea turtle bycatch mitigation measures, scoping hearings were not held. However, the Agency has provided ample opportunity for public participation throughout the rulemaking. The Agency published a Notice of Intent of Proposed Rulemaking (NOI) in the **Federal Register** on November 28, 2003 (68 FR 66783), identifying significant issues related to the action and requesting public comment through December 29, 2003. The Agency also distributed a FAX notice on December 3, 2003, to solicit comment. Taking public comment into consideration, the Agency published a proposed rule in the **Federal Register** on February 11, 2004 (69 FR 6621), then held public hearings in North Dartmouth, MA (March 2, 2004), New Orleans, LA (March 4, 2004), and Manteo, NC (March 9, 2004). Over 100 people attended these public hearings. The comment period on the proposed rule closed on March 15, 2004, and the Agency received approximately 175 written and electronic comment letters. With regard to the ESA consultation, the Agency does not consider there to be an applicant for this action. Moreover, the Agency is not required to provide for public comment on a draft or final biological opinion. Copies of the final, 2004 BiOp are available upon request from the NMFS Southeast Regional Office, Division of Protected Resources (9721 Executive Center Drive North, St. Petersburg, FL 33702. 727–570–5312). The BiOp may also be obtained online at: *http://sero.nmfs.noaa.gov/*.

Comment 44: One commenter stated that the impacts of the proposed regulations on ''other important organizations,'' including trade associations, have not been fully analyzed in the Community Profiles section of the DSEIS.

Response: Chapters 4, 6, 7, 8, and 9 of the DSEIS and the FSEIS identify affected entities and provided an assessment of the likely economic impacts associated with each of the alternatives. The analysis primarily focuses upon fishing vessels, as they would be most directly impacted by the action. The analysis was very complete and indicated a range of potential economic impacts on vessels, from negative to positive, depending upon a variety of factors including target species and hook and bait choices. In addition, potential impacts on dealers, processors, bait houses, and gear manufacturers who might be indirectly affected by the measures are identified. By providing information on these direct and indirect impacts, with a focus on those most directly impacted by the action, other entities, including trade associations, should be able to reasonably assess the impacts in consideration of their unique situations.

Comment 45: Commenters noted that the Atlantic Tunas Conservation Act (ATCA) provides that the U.S. PLL fleet should have a reasonable opportunity to catch its full ICCAT quota of swordfish; however, the fleet is currently harvesting only 29 percent of its quota. The proposed regulations would further prevent full utilization of the quota.

Response: The final management measures are expected to provide the U.S. PLL fleet with a reasonable opportunity to catch its ICCAT quota allocation, consistent with the ATCA, Magnuson-Stevens Act, ESA, and other domestic law. The NED experiment demonstrated that target species catches can be increased, or at least remain constant, using circle hooks if an appropriate combination of hooks and bait is deployed. The DSEIS noted that the proposed measures are most likely to impact adversely mixed target trips, and that impacts on catches in warmer waters are not fully known. Public comment affirmed these potential impacts, and in response, the final rule provides more flexibility in hook and bait choices and hook sizes to minimize

adverse impacts, to the extent practicable.

Comment 46: A commenter stated that the Secretary of Commerce does not have the jurisdictional authority to apply the Magnuson-Stevens Act to HMS fisheries outside the U.S. exclusive economic zone (EEZ), including the NED.

Response: The Secretary of Commerce does have the authority to regulate U.S.-permitted vessels fishing outside the U.S. EEZ. The Secretary's authority with regard to the NED was specifically addressed and upheld in *Blue Water Fishermen's Association, et al.*, v. *National Marine Fisheries Service, et. al.*, 226 F.Supp.2d 330 (D. Mass. 2002).

Changes From the Proposed Rule

NMFS has made several changes to the proposed rule. These changes are outlined below.

(1) In § 635.21(c)(5)(iii)(C), the hook size, type and bait requirements have been modified. In the proposed rule, all pelagic longline vessels were limited, at all times, to possessing on board and/or using only either 18/0 or larger offset circle hooks with whole Atlantic mackerel; or 18/0 or larger non-offset circle hooks with squid. The final rule contains different regulations for vessels fishing inside and outside of the NED. In the final rule, § 635.21(c)(5)(iii)(C) limits pelagic longline vessels, fishing outside of the NED closed area, at all times, to possessing on board and/or using only 18/0 or larger circle hooks with an offset not to exceed 10 degrees, and/or 16/0 or larger non-offset circle hooks. Only whole finfish and/or squid baits may be possessed and/or utilized with the allowable hooks. Section 635.21(c)(2)(v) allows vessels with pelagic longline gear on board to fish in the NED closed area under certain requirements. Vessels are limited, at all times, to possessing onboard and/or using only 18/0 or larger circle hooks with an offset not to exceed 10 degrees. Only whole Atlantic mackerel and/or squid baits may be possessed and/or utilized with the allowable hooks inside the NED closed area. As indicated in the response to comments, the final rule was modified to address regional differences in target species catches and bait availability, and to provide additional flexibility for vessels to switch hooks and baits to target different species at different times during a trip.

(2) Consistent with the above changes for the hook and bait requirements, the final rule also makes changes to §§ 635.2 and 635.21(c)(2)(v). The proposed rule removed the definition for ''Northeast Distant closed area'' in § 635.2, and removed the prohibition on fishing in the NED closed area in § 635.21(c)(2)(v). The final rule retains the NED closed area definition and prohibition on PLL fishing (except under certain conditions, described above), to clarify that differing hook and bait requirements would apply in the NED closed area and elsewhere in the fishery. Removing the NED definition and its coordinates also would have affected other regulations, not directly related to this rulemaking, that refer to the NED closed area. Thus, this modification provides for consistency and clarity throughout the HMS regulations.

(3) In § 635.2, in response to public comment, the definition of ''Circle hook'' has been clarified to specify that the barbed end of the hook should, as originally designed, generally be circular or oval-shaped.

(4) In the final rule, NMFS has refined the proposed minimum width specifications and added a minimum gap measurement (from barb to shank) for 18/0 circle hooks to provide clarification of the requirements. In addition, because 16/0 non-offset circle hooks are to be allowed outside of the NED closed area, the final rule includes minimum size specifications (width and gap) for these hooks. To better ensure that hooks are not offset beyond ten degrees, the final rule specifies that allowable hooks may only be offset by the hook manufacturer.

(5) In the final rule, the specifications for the long-handled dehooker for external hooks, and the long-handled device to pull an inverted ''v'', at § 635.21(c)(5)(i), have been modified from those that were proposed. The minimum length of the extended reach handle for both pieces of equipment must be equal to the freeboard of the vessel or 6 ft (1.83 m), whichever is greater. In the proposed rule, the handle length of the long-handled dehooker for external hooks was specified as 3 ft (0.91 m), but this length was determined to be too short for most vessels. The specifications for the long-handled device to pull an inverted ''v'' were changed to be consistent with those for the long-handled dehooker for external hooks, so that the same piece of equipment could be used for both purposes.

(6) In the final rule, §§ 635.23(f)(3) and 635.27(a)(3) are amended, consistent with the above changes, to remove references to the NED experimental fishery.

(7) The definition of ''Freeboard'' has been moved from the proposed regulations in § 635.21(c)(5), to the definitions section in § 635.2. The definition remains unchanged from that in the proposed rule.

(8) In the final rule, § 223.206(d)(1)(ii) has been modified from the proposed regulatory text to be more consistent with the terminology used in the HMS regulations.

Alternative NEPA Procedures

To more rapidly reduce sea turtle interactions and to mitigate the economic impact of sea turtle bycatch mitigation measures, NMFS has requested and been authorized to execute alternative procedures for the preparation and completion of an SEIS. The Council on Environmental Quality (CEQ) authorized a waiver of 14 of the standard 45 days for the DSEIS comment period, and 26 of the standard 30 days for the waiting period between the date of publication of the NOA for the FSEIS and signature of the record of decision (ROD) for this action. The FSEIS was posted on the HMS website on June 22, 2004, at *http://www.nmfs.noaa.gov/sfa/hms/*. NMFS distributed an e-mail to its HMS ACTION network regarding the availability of the FSEIS for comment. The FSEIS comment period closed on June 29, 2004.

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.*

This final rule has been determined to be not significant for purposes of Executive Order 12866.

Because this rule relieves a restriction by allowing vessels to fish in the NED closed area, those portions of the rule relating to the NED exemption, at § 635.2 and §§ 635.21(c)(2)(v) and (c)(5)(iv), are not subject to the 30–day delayed effectiveness provision of the Administrative Procedure Act pursuant to 5 U.S.C. 553(d)(1). Currently the NED is closed to all pelagic longline fishing for HMS. Under this rule, vessels complying with specified hooks, baits, and release gear requirements would be allowed to fish in the NED closed area.

As required under the Regulatory Flexibility Act, 5.U.S.C. 601 *et seq.*, NMFS has prepared a Final Regulatory Flexibility Analysis (FRFA) that examines the economic impact this final rule is expected to have on small entities, in order to determine ways to minimize significant economic impacts. The Initial Regulatory Flexibility Analysis (IRFA) was summarized in the proposed rule, which published on February 11, 2004 (69 FR 6621). The FSEIS prepared for this rule provides additional discussion of the biological,

social, and economic impacts of all the alternatives considered. A copy of the FSEIS/RIR/FRFA is available from NMFS (see **ADDRESSES**). A summary of the FRFA follows:

A description of why this action is being considered, the objectives and legal basis for the action, and a description of the action are contained at the beginning of this section in the preamble and in the SUMMARY section of the preamble.

NMFS considers all permit holders to be small entities. The final management measures could potentially affect all vessels currently permitted to participate in the HMS pelagic longline fishery, although only about half (148) of all permit holders are actually active in this fishery. As of November 2003, approximately 235 tuna longline limited access permits had been issued. In addition, approximately 203 directed swordfish limited access permits, 100 incidental swordfish limited access permits, 249 directed shark limited access permits, and 357 incidental shark limited access permits had been issued. Because vessels authorized to fish for swordfish and tunas with pelagic longline gear must possess a tuna longline permit, a swordfish permit (directed or incidental), and a shark permit (directed or incidental), the maximum number of vessels potentially affected by this final rule is 303 (the number of swordfish permits issued).

Other sectors of HMS fisheries such as dealers, processors, bait houses, and gear manufacturers, some of which are considered small entities, might be indirectly affected by the preferred alternatives. However, because the final rule does not apply directly to them, economic impacts on these other sectors are discussed in the FSEIS, but not in the FRFA.

As described in the Comments and Responses section of the preamble, NMFS received many comments on the potential for substantial economic impacts associated with the proposed regulations, and two comments specifically related to the IRFA. See Comment 22 for IRFA-specific comments.

The IRFA/DSEIS/RIR acknowledged that the proposed measures could potentially result in adverse economic impacts for small entities, depending upon which hook and bait combination was used for particular target species, and that the impacts were generally more severe for mixed target species trips. In summary, a large portion of the public comments confirmed these statements, and presented three primary reasons for why the proposed measures would result in significant adverse economic impacts. First, the proposed measures would not provide flexibility to change hook-types and baits in reaction to changing conditions that may occur on longer trips (*i.e.*, species availability and market prices). Second, limiting vessels to possessing and/or using only 18/0 or larger circle hooks outside the NED would substantially reduce catches of target species in the south Atlantic and GOM regions (*i.e.*, small yellowfin tuna, dolphin and wahoo). Finally, the requirement limiting vessels to possessing and/or using only either whole Atlantic mackerel or squid baits would be detrimental to vessels fishing in areas outside the NED because Atlantic mackerel is either unavailable, prohibitively expensive, or ineffective at catching target species in the south Atlantic or GOM.

The proposed regulations required fishermen to make a decision, prior to departing port, regarding the hook and bait combination that would be deployed during the trip. In general, hook and bait combinations that increase swordfish catches (18/0 offset circle hook with mackerel) would simultaneously decrease tuna catches, and combinations that increase tuna catches (18/0 non-offset circle hook with squid) would simultaneously decrease swordfish catches. Impacts on catches of shark, dolphin, and wahoo were unknown. The consequence of choosing an inappropriate hook and bait combination for a specific target species could have resulted in substantially reduced revenues. Public comment, to a large extent, indicated that changes in revenue associated with the proposed regulations would be substantially negative, rather than positive, within the range of impacts that were presented in the IRFA. In consideration of these public comments, the Agency modified the final regulations to provide more flexibility regarding allowable baits, offset and non-offset circle hooks, and minimum hook sizes outside the NED. These modifications will mitigate for potential adverse economic impacts, increase flexibility, address geographical differences within the fishery, and ease the compliance burden associated with the purchase and use of non-indigenous bait, while ensuring significant conservation benefits for sea turtles.

Alternatives to the Rule

NMFS considered sixteen alternatives in developing the IRFA. These alternatives included: no action (alternative A1), hook and bait modifications outside the NED (alternatives A2 - A5), reopening the NED without hook and bait restrictions (Alternative A6), reopening the NED with hook and bait modifications (alternatives A7 - A10), a total prohibition on pelagic longline gear in Atlantic HMS fisheries (alternative A11), pelagic longline time and area closures (alternatives A12 - A15), and sea turtle careful handling protocols and release gear design standards (alternative A16). In response to public comments, NMFS considered modifications to alternatives A5 and A10. The FSEIS and FRFA describe alternatives A5 and A10 as alternatives A5(a) and A10(b), and the modifications as alternatives A5(b) and A10(b).

Table 4 provides a summary of the net economic benefits and costs associated with each of alternatives.

TABLE 4. SUMMARY OF THE NET BENEFITS AND COSTS FOR EACH ALTERNATIVE

Alternative	Estimated Net Economic Benefits	Estimated Net Economic Costs
A1	None	None.
A2	Vessels able to successfully target swordfish may realize an increase in gross revenues of between 3.57 and 11.72%.	Vessels may experience a decrease in gross revenues of between 47.93 and 51.74%, attributable to potential declines in tuna catches. Vessels embarking on mixed target trips (swordfish and tuna) may experience a decrease in gross revenues of between 36.20 and 48.17%. Vessels would incur an estimated hook compliance cost of approximately $1,044.

TABLE 4. SUMMARY OF THE NET BENEFITS AND COSTS FOR EACH ALTERNATIVE—Continued

Alternative	Estimated Net Economic Benefits	Estimated Net Economic Costs
A3 ..... Option I	Vessels able to successfully target swordfish may realize an increase in gross revenues of between 3.57 and 11.72%.	Vessels may experience a decrease in gross revenues of between 47.93 and 51.74%, attributable to potential declines in tuna catches. Vessels embarking on mixed target trips (swordfish and tuna) may experience a decrease in gross revenues of between 36.20 and 48.17%. Vessels would incur an estimated hook compliance cost of approximately $1,044.
A3 ..... Option ii	Vessels able to successfully target tuna may realize an increase in gross revenues of between 11.95 and 17.25%. Vessels embarking on mixed target trips (swordfish and tuna) may experience an increase in gross revenues of as much as 6.19%.	Vessels may experience a decrease in gross revenues of between 11.06 and 12.63%, stemming from potential declines in swordfish landings. Vessels embarking on mixed target trips (swordfish and tuna) may experience a decrease in gross revenues of as much as 0.68%. Vessels would incur an estimated hook compliance cost of approximately $1,044.
A4 ..... Option i	Vessels able to successfully target swordfish may realize an increase in gross revenues of between 3.57 and 13.01%.	Vessels may experience a decrease in gross revenues of between 47.93 and 51.74%, attributable to potential declines in tuna catches. Vessels embarking on mixed target trips (swordfish and tuna) may experience a decrease in gross revenues of between 36.20 and 48.17%. Vessels would incur an estimated hook compliance cost of approximately $1,044.
A4 ..... Option ii	Vessels able to successfully target tuna may realize an increase in gross revenues of between 11.95 and 17.25%. Vessels embarking on mixed target trips (swordfish and tuna) may experience an increase in gross revenues of as much as 6.19%.	Vessels may experience a decrease in gross revenues of between 11.06 and 12.63%, stemming from potential declines in swordfish landings. Vessels embarking on mixed target trips (swordfish and tuna) may experience a decrease in gross revenues of as much as 0.68%. Vessels would incur an estimated hook compliance cost of approximately $1,044.
A4 ..... Option iii	Vessels able to successfully target swordfish may realize an increase in gross revenues of as much as 24.58%.	Vessels may experience a decrease in gross revenues of as much as 53.28%, attributable to potential declines in tuna catches. Vessels embarking on mixed target trips (swordfish and tuna) may experience a decrease in gross revenues of 28.70%. Vessels would incur an estimated hook compliance cost of approximately $1,433.
A5 (a)	No change is expected in gross revenues attributable to tuna.	Vessels may experience a decrease in gross revenues of between 3.88 and 7.75%, attributable to potential declines in swordfish catches. Vessels embarking on mixed target trips (swordfish and tuna) may experience a decrease in gross revenues of between 3.87 and 7.75%. Vessels would incur an estimated hook compliance cost of approximately $885.
A5 (b)	No change is expected in gross revenues attributable to tuna.	Vessels may experience a decrease in gross revenues of between 3.88 and 7.75%, attributable to potential declines in swordfish catches. Vessels embarking on mixed target trips (swordfish and tuna) may experience a decrease in gross revenues of between 3.87 and 7.75%. Vessels would incur an estimated hook compliance cost of approximately $885.
A7	Vessels able to successfully target swordfish may realize an increase in gross revenues of between 8.13 and 26.65%. Vessels embarking on mixed target trips (swordfish and tuna) may experience an increase in gross revenues of as much as 17.50%.	Vessels may experience a decrease in gross revenues of between 9.15 and 9.88%, attributable to potential declines in tuna catches. Vessels embarking on mixed target trips (swordfish and tuna) may experience a decrease in gross revenues of as much as 1.75%. Vessels would incur an estimated hook compliance cost of approximately $1,044.

TABLE 4. SUMMARY OF THE NET BENEFITS AND COSTS FOR EACH ALTERNATIVE—Continued

Alternative	Estimated Net Economic Benefits	Estimated Net Economic Costs
A8	Vessels able to successfully target swordfish may realize an increase in gross revenues of as much as 5.11%.	Vessels may experience a decrease in gross revenues of as much as 10.47%, attributable to potential declines in tuna catches. Vessels embarking on mixed target trips (swordfish and tuna) may experience a decrease in gross revenues of 5.36%. Vessels would incur an estimated hook compliance cost of approximately $2,400.
A9		
Option i	Vessels able to successfully target swordfish may realize an increase in gross revenues of as much as 55.88%. Vessels embarking on mixed target trips (swordfish and tuna) may experience an increase in gross revenues of 45.71%.	Vessels may experience a decrease in gross revenues of as much as 10.17%, attributable to potential declines in tuna catches. Vessels would incur an estimated hook compliance cost of approximately $1,433.
A9		
Option ii	Vessels able to successfully target swordfish may realize an increase in gross revenues of between 8.13 and 26.65%. Vessels embarking on mixed target trips (swordfish and tuna) may experience an increase in gross revenues of as much as 17.50%.	Vessels may experience a decrease in gross revenues of between 9.15 and 9.88%, attributable to potential declines in tuna catches. Vessels embarking on mixed target trips (swordfish and tuna) may experience a decrease in gross revenues of as much as 1.75%. Vessels would incur an estimated hook compliance cost of approximately $1,044.
A10 (a)		
Option i	Vessels able to successfully target swordfish may realize an increase in gross revenues of between 8.13 and 26.65%. Vessels embarking on mixed target trips (swordfish and tuna) may experience an increase in gross revenues of as much as 17.50%.	Vessels may experience a decrease in gross revenues of between 9.15 and 9.88%, attributable to potential declines in tuna catches. Vessels embarking on mixed target trips (swordfish and tuna) may experience a decrease in gross revenues of as much as 1.75%. Vessels would incur an estimated hook compliance cost of approximately $1,044.
A10 (a)		
Option ii	Vessels able to successfully target tuna may realize an increase in gross revenues of between 2.28 and 3.29%.	Vessels may experience a decrease in gross revenues of between 25.16 and 28.72%, stemming from potential declines in swordfish landings. Vessels embarking on mixed target trips (swordfish and tuna) may experience a decrease in gross revenues of between 21.86 and 26.44%. Vessels would incur an estimated hook compliance cost of approximately $1,044.
A10 (b)	Vessels able to successfully target swordfish may realize an increase in gross revenues of as much as 26.65%. Vessels able to successfully target tuna may realize an increase in gross revenues of as much as 3.29%. Vessels embarking on mixed target trips (swordfish and tuna) may experience an increase in gross revenues of as much as 29.95%.	Vessels may experience a decrease in gross revenues of as much as 28.72%, stemming from potential declines in swordfish landings and a decrease in gross revenues of as much as 9.88%, attributable to potential declines in tuna catches. Vessels embarking on mixed target trips (swordfish and tuna) may experience a decrease in gross revenues of as much as 38.59%. Vessels would incur an estimated hook compliance cost of approximately $1,044.
A13	Vessels would likely increase catches of swordfish by 17% and bigeye tuna by 32% (in numbers of fish).	Vessels would likely experience a 2% decrease in yellowfin tuna catches (in numbers of fish). Vessels may experience increased fuel costs associated with an increase in distances vessels may need to travel to reach open areas.
A14	Vessels would likely increase catches of swordfish by 18% and bigeye tuna by 33% (in numbers of fish).	Vessels would likely experience a 2% decrease in yellowfin tuna catches (in numbers of fish). Vessels may also experience increased fuel costs associated with an increase in distances vessels may need to travel to reach open areas.
A15	Vessels would likely increase catches of swordfish by 5% and yellowfin tuna by 3%, and bigeye tuna by 17% (in numbers of fish).	Vessels may experience increased fuel costs associated with an increase in distances vessels may need to travel to reach open areas.
A16	Minor positive benefit from reduced hook replacement costs (if hooks are retrieved undamaged). May increase profits for suppliers who provide release equipment.	Vessels would incur an estimated compliance cost of approximately $485.00 - $1056.50.

Alternative A1 (no action) has been rejected because it would not provide for any additional sea turtle bycatch and bycatch mortality reduction measures. Further, it would allow the full adverse economic impacts of the NED closure to be realized, given the termination of the NED experiment and its attendant economic benefits.

Alternative A2 (limit vessels with pelagic longline gear onboard, at all times, in all areas open to pelagic longline fishing excluding the NED, to possessing onboard and/or using only 18/0 or larger circle hooks with an offset not to exceed 10 degrees and whole mackerel bait) would likely have produced significant positive ecological impacts. However, it would also likely increase adverse socio-economic impacts on fishermen, compared to selected alternative A5(b), by limiting flexibility in selecting a more efficient hook and bait treatment for use in targeting tuna. As such, those fishermen outside the NED unable to successfully target swordfish would have been adversely impacted to a greater extent, because of the expected loss in tuna revenues associated with this hook and bait treatment. Further, many commenters stated that 18/0 circle hooks would be too large to catch some target species encountered outside the NED. For these reasons, alternative A2 was rejected at this time.

Alternative A3 (limit vessels with pelagic gear onboard, in areas open to pelagic longline fishing, excluding the NED, to possessing onboard and/or using only one of the following combinations: (i)18/0 or larger circle hooks with and offset not to exceed 10 degrees and whole mackerel bait; or (ii) 18/0 or larger non-offset circle hooks and squid bait) would likely produce significant positive ecological impacts. However, many commenters stated that this alternative would not provide enough flexibility for fishermen to adjust to changing market conditions, change target species while at sea, or employ traditional baits. Commenters also stated that 18/0 circle hooks may be too large to catch some target species encountered outside the NED. Alternative A3 was rejected, at his time, because it would likely result in greater negative socio-economic impacts than selected alternative A5(b).

Alternative A4 (limit vessels with pelagic longline gear onboard, at all times, in all areas open to pelagic longline fishing excluding the NED, to possessing onboard and/or using only one of the following combinations: (i) 18/0 or larger circle hook with an offset not to exceed 10 degrees and whole mackerel bait; or, (ii) 18/0 or larger non-offset circle hooks and squid bait; or, (iii) 9/0 ''J''-hook with an offset not to exceed 25 degrees and whole mackerel bait) may produce either greater or lesser adverse economic impacts than selected alternative A5(b), depending upon the hook and bait combination chosen and the target species of a specific trip. However, this alternative was rejected because ''J''-hooks are likely to have a higher post-mortality rate than circle hooks. Interactions with ''J''-hooks have a higher incidence of deep hooking and tend to result in more serious injuries for sea turtles.

Alternative A5(a) (limit vessels with pelagic longline gear onboard, at all times, in all areas open to pelagic longline fishing excluding the NED, to possessing onboard and/or using only 16/0 or larger circle hooks with an offset not to exceed 10 degrees) was rejected because the use of offset 16/0 circle hooks, as opposed to non-offset 16/0 circle hooks, would likely result in higher rates of throat or stomach hooked loggerhead sea turtles and associated mortalities. Alternative A5(a) would likely have minor to moderate adverse economic impacts on fishermen, given potential decreases in swordfish catch.

Alternative A6 (allow pelagic longline fishing for Atlantic HMS in the NED, maintaining existing restrictions) would have positive social and economic benefits. This alternative would not provide for any additional sea turtle bycatch and bycatch mortality reduction measures or ensure compliance with the ESA. Therefore, it was rejected.

Alternative A7 (open the NED to pelagic longline fishing and limit vessels with pelagic longline gear onboard in that area, at all times, to possessing onboard and/or using only 18/0 or larger circle hooks with an offset not to exceed 10 degrees and whole mackerel bait) would be effective at reducing sea turtle interactions, and would have positive social and economic effects as compared to the status quo or historical perspectives. However, it was rejected because allowing only a single hook and bait in the NED would limit the ability of fishermen to target swordfish or tunas, more so than selected alternatives A10(a) and A10(b).

Alternative A8 (limit vessels with pelagic longline gear onboard, at all times, in the NED to possessing onboard and/or using only 20/0 or larger circle hooks with an offset not to exceed 10 degrees) would be effective at reducing sea turtle interactions, and would have positive social and economic benefits over the status quo. However, it would have adverse economic impacts when viewed historically. This alternative was rejected because it would have a greater adverse impact on revenues associated with landings of tuna, and a less positive impact on revenues associated with landings of swordfish when compared to selected alternative A10(b).

Alternative A9 (limit vessels with pelagic longline gear onboard in the NED, to possessing and/or using no more than one of the following hook and bait combinations: (i) 9/0 ''J''-hooks with an offset not to exceed 25 degrees and whole mackerel bait; or (ii) 18/0 or larger circle hooks with an offset not to exceed 10 degrees and whole mackerel bait) may provide greater positive or negative economic impacts than selected alternative A10(b), given the sizable anticipated changes in both swordfish and tuna catches. However, this alternative was rejected because the use of ''J''-hooks is expected to result in sea turtle higher post-release mortality rates than circle hooks.

Alternative A10(a) (limit vessels with pelagic longline gear onboard in the NED, to possessing and/or using no more than one of the following hook and bait combinations: (i) 18/0 or larger circle hook with an offset not to exceed 10 degrees and whole mackerel bait; or (ii) 18/0 or larger non-offset circle hook and squid bait) would be effective at reducing sea turtle interactions and would have positive social and economic impacts over the status quo. However, many commenters stated that alternative A10(a) would not provide enough flexibility for fishermen to adjust to changing market conditions or change target species while at sea. Alternative A10(a) was rejected because it would likely result in greater negative socio-economic impacts than selected alternative A10(b).

Alternative A11 (prohibit the use of pelagic longline gear in Atlantic HMS fisheries) would afford the greatest protection to sea turtles domestically, but it was rejected, at this time, because other bycatch and bycatch mortality reduction alternatives are available, and alternative A11 would impose the most significant adverse economic impacts of all the alternatives.

Alternative A12 (close the western GOM year-round) would likely have severe adverse economic impacts on a distinct segment of the fishery. Alternative A12 was rejected, at this time, because other bycatch and bycatch mortality reduction alternatives are available. A GOM or alternative closure may be considered in a future rulemaking, as necessary, consistent with the June 1, 2004, BiOp for the fishery. Additional analyses would be necessary to incorporate changes in the environmental baseline resulting from

selected circle hook and sea turtle release and disentanglement gear alternatives.

The time/area closures in alternatives A13, A14, and A15 were each analyzed with and without a redistribution of fishing effort. For this reason, the results may indicate increases in target and non-target species catches for certain alternatives.

Alternative A13 (close an area of the central GOM year-round) would likely have substantial economic impacts on a large and distinct segment of the U.S. pelagic longline fleet, communities, buyers, and dealers in the Gulf of Mexico. While data indicate potential increases in catches of swordfish and bigeye tuna of 17 and 32 percent in numbers of fish, respectively, and a decrease of yellowfin tuna catches of two percent in numbers of fish, the actual impacts are unclear, as potential changes in the weight of landings remain unknown. Loggerhead sea turtle interactions are projected to increase due to relocation of fishing effort under this alternative. While the impacts have not been quantified, NMFS anticipates that the overall social and economic impacts of a closure of this size would likely be adverse. Because a high percentage of the historical fishing effort has been located in the area considered for the time/area closure, a substantial number of fishing vessels may need to travel greater distances to reach favorable fishing grounds and spending longer periods at sea, which could potentially increase fuel, bait, ice, and crew costs. In combination with other alternatives, such as hook and bait restrictions, this alternative would have even greater adverse impacts, and more substantial adverse impacts on the GOM segment of the fleet, than the preferred alternatives. Alternative A13 was rejected, at this time, because other bycatch and bycatch mortality reduction alternatives are available. A GOM or alternative closure may be considered in a future rulemaking, as necessary, consistent with the June 1, 2004, BiOp for the fishery. Additional analyses would be necessary to incorporate changes in the environmental baseline resulting from selected circle hook and sea turtle release and disentanglement gear alternatives.

Alternative A14 (prohibit the use of pelagic longline gear in HMS Fisheries in areas of the Central GOM and NEC year-round) was rejected because, at this time, other bycatch and bycatch mortality reduction alternatives are available. A GOM or alternative closure may be considered in a future rulemaking, as necessary, consistent with the June 1, 2004, BiOp for the fishery. Additional analyses would be necessary to incorporate changes in the environmental baseline resulting from selected circle hook and sea turtle release and disentanglement gear alternatives. Under alternative A14, swordfish and bigeye tuna catches could potentially increase 18 and 33 percent in numbers of fish, respectively, and catches of yellowfin tuna could potentially decrease by two percent. However, the actual impacts are unclear because changes in the weight of landings is not known. Because a high percentage of the historical fishing effort has been located in the area considered for the time/area closure, a substantial number of fishing vessels may need to travel greater distances to reach favorable fishing grounds and spending longer periods at sea, which could potentially increase fuel, bait, ice, and crew costs. In combination with other alternatives, such as hook and bait restrictions, alternative A14 would be expected to have even greater adverse impacts, and more substantial adverse impacts than the selected alternatives.

Alternative 15 (prohibit the use of pelagic longline gear in HMS Fisheries in areas of the Central GOM and NEC from May through October) was rejected, at this time, because other bycatch and bycatch mortality reduction alternatives are available. A GOM or alternative closure may be considered in a future rulemaking, as necessary, consistent with the June 1, 2004, BiOp for the fishery. Additional analyses would be necessary to incorporate changes in the environmental baseline resulting from selected circle hook and sea turtle release and disentanglement gear alternatives. Under alternative A15, swordfish, yellowfin tuna, and bigeye tuna catches could potentially increase five percent, three percent, and 17 percent in numbers of fish, respectively. However, the actual impacts are unclear because changes in the weight of landings are not known. Because a high percentage of the historical fishing effort has been located in the area considered for the time/area closure, a substantial number of fishing vessels may need to travel greater distances to reach favorable fishing grounds and spending longer periods at sea, which could potentially increase fuel, bait, ice, and crew costs. In combination with other alternatives, such as hook and bait restrictions, alternative A15 would be expected to have even greater adverse impacts, and more substantial adverse impacts than the preferred alternatives.

Reasons for Selecting Final Management Measures

The selected alternatives (A5(b), A10(b) and A16) are intended to reduce sea turtle interaction and mortality levels while minimizing adverse economic impacts to the extent practicable, consistent with the ESA, Magnuson-Stevens Act, and other applicable law. Alternatives A5(b) and A10(b) both provide flexibility to utilize circle hooks and baits that are effective at reducing sea turtle interactions and post-hooking mortality, without adversely impacting catches of swordfish and tunas. The projected economic impacts associated with these alternatives are presented below. An average annual vessel gross revenue estimate of $178,619 was assumed for these analyses.

Alternative A5(b) limits vessels with pelagic longline gear onboard, at all times, in all areas open to pelagic longline fishing, excluding the NED, to possessing onboard and/or using only 16/0 or larger non-offset circle hooks and/or 18/0 or larger circle hooks with an offset not to exceed 10 degrees. Only whole finfish and squid baits may be possessed and/or utilized with allowable hooks. Under this alternative, fishermen may experience little or no change in catches of tunas (*i.e.*, tuna catch remains at 58.6 percent by weight), and a 10 to 20 percent decrease in catches of swordfish. Based on this, vessel revenues attributable to tunas would likely remain at approximately $104,670. Vessel revenues attributable to swordfish may possibly decrease by 3.88 ($6,925) to 7.75 ($13,850) percent to between $171,694 and $164,769. However, because fishermen have the option of using a hook and bait combination shown to be more effective at catching swordfish, this reduction in revenues is not expected to occur. Actual impacts of this alternative would depend on the frequency with which particular hook and bait combinations are employed and species targeted.

Alternative A10(b) allows pelagic longline vessels to fish in the NED, but requires vessels in that area, at all times, to possess onboard and/or use only 18/0 or larger circle hooks with an offset not to exceed 10 degrees. Only whole mackerel and squid baits may be possessed and/or utilized with the allowable hooks. Depending upon whether fishermen use the 18/0 offset circle hook with whole mackerel bait or the 18/0 non-offset circle hook with squid, respectively, there may be a -32.58 percent to +30.24 percent change in swordfish catches (by weight) and a -87.64 to possibly as much as +29.22

percent (by weight) change in tuna catches. (Note: Increases in tuna landings during the NED experiment were substantial but, given limited data, were determined to be not statistically significant.) Thus, the portion of landings of historically attributable to swordfish may shift from 88.54 percent (by weight) of landings to between 59.69 and 115 percent. Gross revenues attributable to swordfish may vary between -28.72 percent (-$51,292) and +26.65 percent ($47,608), resulting in overall gross vessel revenues of between $127,327 and $226,227. The portion of vessel landings historically attributable to tuna may shift from 9.85 percent of landings to between 1.22 and 12.73 percent. Gross revenues of vessels attributable to tuna may vary by -9.88 percent (-$17,642) to +3.29 percent ($5,882), resulting in overall gross vessel revenues of between $160,997 and $184,501. For vessels engaging in mixed target trips, estimated gross vessel revenues could range between $109,685 and $232,109. These figures likely represent over estimates of both losses and gains. The actual impact would likely fall between these estimates, depending on the frequency with which particular hook and bait combinations are employed and species targeted. Given that no pelagic longline vessels can currently fish in the NED, any revenues generated from fishing in that area under A10(b), would increase gross vessel revenues, compared with the status quo.

Alternative A16 requires the possession and use of sea turtle release gear, and compliance with careful handling protocols. This alternative would likely have only minor initial adverse economic impacts, as there are currently similar requirements in the pelagic longline fishery, with some positive long-term impacts resulting from reduced hook replacement costs. NMFS estimates that a full suite of release gear could cost between $485.00 and $1056.50. These costs could be reduced if fishermen were able to construct some pieces of equipment themselves, rather than purchasing pre-assembled gear from commercial suppliers.

The final regulations do not duplicate, overlap, or conflict with any other relevant regulations, federal or otherwise (5 U.S.C. 603(b)(5)). In addition, the final regulations do not contain additional reporting or record-keeping requirements, but will result in additional compliance requirements, including the possession and use of specific hook types, baits, and sea turtle release equipment.

The final measures will likely result in an initial increase in costs, but may result in longer-term cost savings because circle hooks have lower replacement costs than ''J''-hooks, and because the newly-required release gears may result in increased hook retention. An informal internet and telephone survey of hook suppliers provides a range in price of approximately $0.28 to $0.50 ($0.3539 avg) per hook for 16/0 circle hooks, and $0.26 to $0.66 ($0.4176 avg) per hook for 18/0 commercial grade circle hooks. Large commercial grade ''J''-hooks range from approximately $0.26 to $1.00 (avg. $0.5733) per hook. Assuming that an average of 2,500 hooks per vessel are needed to initially comply with the hook requirements (equip vessels with enough hooks for one trip), the compliance cost for 16/0 circle hooks, on a per vessel basis, may range from $697.50 to $1241.75 with an anticipated average cost of approximately $884.75. Similarly, assuming that an average of 2,500 18/0 circle hooks per vessel are needed to initially comply with the hook requirements, the compliance cost, on a per vessel basis, may range from $657.25 to $1,650.00, with an anticipated average cost of approximately $1,044.00. The circle hook requirements should not increase the needed skill level required for HMS fisheries, as the physical act of switching hook types is a normal aspect of commercial fishing operations. However, there probably will be a period of time during which fishing crews adjust, as with any new gear. Circle hooks are not expected to be prohibitively difficult to work with, as some vessels are already utilizing them.

The requirement to purchase and use sea turtle release gear would require additional skills and would impose a compliance cost for purchase of the gear of between $485.00 and $1,056.50. These costs may be reduced if fishermen are able to construct various pieces of equipment themselves, rather than purchasing pre-assembled gear from a commercial supplier. In addition, specific protocols regarding the proper use of sea turtle release equipment and onboard turtle handling procedures are being implemented. These protocols may increase the needed skill level required for HMS fisheries. A document containing the sea turtle careful release protocols will be issued, and will be required to be onboard. Also, NMFS will conduct training on the proper use of the release equipment.

Traditionally, bait accounts for 16 to 26 percent of the total costs per trip. Any fluctuations in the price and availability of mackerel, whole finfish, or squid baits could have a substantial positive or negative impact on profitability. These baits are generally abundant, but availability will likely depend upon harvesting and distributional capacities. There could also be unquantifiable compliance costs as fishing crews who have not traditionally fished with a particular hook and bait combination familiarize themselves with the most efficient techniques.

NMFS has determined that the list of actions in this rule, which seeks to reduce bycatch and bycatch mortality of sea turtles in the Atlantic pelagic longline fishery, are consistent, to the maximum extent practicable with the enforceable policies of the coastal states in the Atlantic, Gulf of Mexico, and Caribbean that have Federally approved coastal zone management programs under the Coastal Zone Management Act (CZMA). This determination was submitted for review by the responsible state agencies under section 307 of the CZMA during the proposed rule stage. Seven states replied affirmatively regarding the consistency determination. NMFS presumes that the remaining states also concur with this determination.

A formal section 7 consultation under the ESA was prepared for this final action. A summary of the BiOp, dated June 1, 2004, along with its RPA, RPMs, and T & Cs is provided in the preamble of this final rule.

List of Subjects

50 CFR Part 223

Endangered and threatened species, Fisheries, Fishing, Fishing vessels.

50 CFR Part 635

Endangered and threatened species, Fisheries, Fishing, Fishing vessels, Foreign relations, Intergovernmental relations, Penalties, Statistics, Treaties.

Dated: June 30, 2004.

John Oliver,

Deputy Assistant Administrator for Operations, National Marine Fisheries Service.

■ For the reasons set out in the preamble, 50 CFR parts 223 and 635 are amended as follows:

PART 223—THREATENED MARINE AND ANADROMOUS SPECIES

■ 1. The authority citation for part 223 continues to read as follows:

Authority: 16 U.S.C. 1531 *et seq.*

■ 2. In § 223.206, paragraph (d)(1)(ii) is revised to read as follows:

§ 223.206 Exceptions to prohibitions relating to sea turtles.

* * * * *

(d) * * *

(1) * * *

(ii) In addition to the provisions of paragraph (d)(1)(i) of this section, a person aboard a vessel in the Atlantic, including the Caribbean Sea and the Gulf of Mexico, that has pelagic longline gear on board and that has been issued, or is required to have, a limited access permit for highly migratory species under 50 CFR 635.4, must comply with the handling and release requirements specified in 50 CFR 635.21.

* * * * *

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. Effective June 30, 2004, in § 635.2, new definitions for ''Circle hook,'' ''Freeboard,'' and ''Offset circle hook'' are added in alphabetical order to read as follows:

§ 635.2 Definitions.

* * * * *

Circle hook means a fishing hook originally designed and manufactured so that the point is turned perpendicularly back to the shank to form a generally circular, or oval, shape.

* * * * *

Freeboard is defined as the working distance between the top rail of the gunwale to the water's surface, and will vary based on the vessel design.

* * * * *

Offset circle hook means a circle hook originally designed and manufactured so that the barbed end of the hook is displaced relative to the parallel plane of the eyed-end, or shank, of the hook when laid on its side.

* * * * *

■ 3. Effective June 30, 2004, in § 635.21, paragraph (c)(2)(v) is revised, and paragraph (c)(5)(iv) is added to read as follows:

§ 635.21 Gear operation and deployment restrictions.

* * * * *

(c) * * *

(2) * * *

(v) In the Northeast Distant closed area at any time, unless persons onboard the vessel comply with the following:

(A) The vessel is limited, at all times, to possessing onboard and/or using only 18/0 or larger circle hooks with an offset not to exceed 10°. The outer diameter of the hook at its widest point must be no smaller than 2.16 inches (55 mm) when measured with the eye of the hook on the vertical axis (y-axis) and perpendicular to the horizontal axis (x-axis), and the distance between the hook point and the shank (*i.e.*, the gap) must be no larger than 1.13 inches (28.8 mm). The allowable offset is measured from the barbed end of the hook, and is relative to the parallel plane of the eyed-end, or shank, of the hook when laid on its side. The only allowable offset circle hooks are those that are offset by the hook manufacturer; and,

(B) The vessel is limited, at all times, to possessing onboard and/or using only whole Atlantic mackerel and/or squid bait; and,

(C) Vessels must possess, inside the wheelhouse, a document provided by NMFS entitled, ''Careful Release Protocols for Sea Turtle Release with Minimal Injury,'' and must post, inside the wheelhouse, sea turtle handling and release guidelines provided by NMFS; and,

(D) Required sea turtle bycatch mitigation gear, which NMFS has approved under paragraph (c)(5)(iv) of this section, on the initial list of ''NMFS-Approved Models For Equipment Needed For The Careful Release of Sea Turtles Caught In Hook And Line Fisheries,'' must be carried on board, and must be used in accordance with the handling requirements specified in paragraphs (c)(2)(v)(E) - (G) of this section; and,

(E) Sea turtle bycatch mitigation gear, specified in paragraph (c)(2)(v)(D) of this section, must be used to disengage any hooked or entangled sea turtles that cannot be brought on board, and to facilitate access, safe handling, disentanglement, and hook removal or hook cutting of sea turtles that can be brought on board, where feasible. Sea turtles must be handled, and bycatch mitigation gear must be used, in accordance with the careful release protocols and handling/release guidelines specified in paragraph (c)(2)(v)(C) of this section, and in accordance with the onboard handling and resuscitation requirements specified in § 223.206(d)(1).

(F) *Boated turtles.* When practicable, active and comatose sea turtles must be brought on board, with a minimum of injury, using a dipnet approved on the initial list specified in paragraph (c)(2)(v)(D) of this section. All turtles less than 3 ft (.91 m) carapace length should be boated, if sea conditions permit. A boated turtle should be placed on a standard automobile tire, or cushioned surface, in an upright orientation to immobilize it and facilitate gear removal. Then, it should be determined if the hook can be removed without causing further injury. All externally embedded hooks should be removed, unless hook removal would result in further injury to the turtle. No attempt to remove a hook should be made if the hook has been swallowed and the insertion point is not visible, or if it is determined that removal would result in further injury. If a hook cannot be removed, as much line as possible should be removed from the turtle using approved monofilament line cutters from the initial list specified in paragraph (c)(2)(v)(D) of this section, and the hook should be cut as close as possible to the insertion point before releasing the turtle using bolt cutters from that list. If a hook can be removed, an effective technique may be to cut off either the barb, or the eye, of the hook using bolt cutters, and then to slide the hook out. When the hook is visible in the front of the mouth, an approved mouth-opener from the initial list specified in paragraph (c)(2)(v)(D) of this section may facilitate opening the turtle's mouth, and an approved gag from that list may facilitate keeping the mouth open. Short-handled dehookers for ingested hooks, long-nose pliers, or needle-nose pliers from the initial list specified in paragraph (c)(2)(v)(D) of this section should be used to remove visible hooks from the mouth that have not been swallowed on boated turtles, as appropriate. As much gear as possible must be removed from the turtle without causing further injury prior to its release. Refer to the careful release protocols and handling/release guidelines required in paragraph (c)(2)(v)(C) of this section, and the handling and resuscitation requirements specified in § 223.206(d)(1) of this title, for additional information.

(G) *Non-boated turtles.* If a sea turtle is too large, or hooked in a manner that precludes safe boating without causing further damage or injury to the turtle, sea turtle bycatch mitigation gear, specified in paragraph (c)(2)(v)(D) of this section, must be used to disentangle sea turtles from fishing gear and disengage any hooks, or to clip the line and remove as much line as possible from a hook that cannot be removed, prior to releasing the turtle, in accordance with the protocols specified in paragraph (c)(2)(v)(C) of this section. Non-boated turtles should be brought close to the boat and provided with time to calm down. Then, it must be determined whether or not the hook can be removed without causing further injury. All externally embedded hooks must be removed, unless hook removal

would result in further injury to the turtle. No attempt should be made to remove a hook if it has been swallowed, or if it is determined that removal would result in further injury. If the hook cannot be removed and/or if the animal is entangled, as much line as possible must be removed prior to release, using an approved line cutter from the initial list specified in paragraph (c)(2)(v)(D) of this section. If the hook can be removed, it must be removed using a long-handled dehooker from the initial list specified in paragraph (c)(2)(v)(D) of this section. Without causing further injury, as much gear as possible must be removed from the turtle prior to its release. Refer to the careful release protocols and handling/release guidelines required in paragraph (c)(2)(v)(C) of this section, and the handling and resuscitation requirements specified in § 223.206(d)(1) of this title, for additional information.

* * * * *

(5) * * *

(iv) *Approval of sea turtle bycatch mitigation gear.* NMFS will file with the Office of the Federal Register for publication an initial list of required sea turtle bycatch mitigation gear that NMFS has approved as meeting the minimum design standards specified under paragraph (c)(5)(i) of this section. Other devices proposed for use as line clippers or cutters or dehookers, as specified under paragraphs (c)(5)(i)(A), (B), (C), (G), (H), and (K) of this section, must be approved as meeting the minimum design standards before being used. NMFS will examine new devices, as they become available, to determine if they meet the minimum design standards, and will file with the Office of the Federal Register for publication notification of any new devices that are approved as meeting the standards.

* * * * *

■ 4. In § 635.21, paragraphs (a)(3), (c)(5)(i), and (c)(5)(ii) are revised; and paragraph (c)(5)(iii)(C) is added to read as follows:

§ 635.21 Gear operation and deployment restrictions.

(a) * * *

(3) All vessels that have pelagic or bottom longline gear on board and that have been issued, or are required to have, a limited access swordfish, shark, or tuna longline category permit for use in the Atlantic Ocean including the Caribbean Sea and the Gulf of Mexico must possess, inside the wheelhouse, the document provided by NMFS entitled, ''Careful Release Protocols for Sea Turtle Release with Minimal Injury'' and must post inside the wheelhouse the sea turtle handling and release guidelines provided by NMFS.

* * * * *

(c) * * *

(5) * * *

(i) *Possession and use of required mitigation gear.* Required sea turtle bycatch mitigation gear, which NMFS has approved under paragraph (c)(5)(iv) of this section as meeting the minimum design standards specified in paragraphs (c)(5)(i)(A) through (c)(5)(i)(L) of this section, must be carried on board, and must be used to disengage any hooked or entangled sea turtles in accordance with the handling requirements specified in paragraph (c)(5)(ii) of this section.

(A) *Long-handled line clipper or cutter.* Line cutters are intended to cut high test monofilament line as close as possible to the hook, and assist in removing line from entangled sea turtles to minimize any remaining gear upon release. NMFS has established minimum design standards for the line cutters. The LaForce line cutter and the Arceneaux line clipper are models that meet these minimum design standards, and may be purchased or fabricated from readily available and low-cost materials. One long-handled line clipper or cutter and a set of replacement blades are required to be onboard. The minimum design standards for line cutters are as follows:

(*1*) *A protected and secured cutting blade.* The cutting blade(s) must be capable of cutting 2.0–2.1 mm (0.078 in. - 0.083 in.) monofilament line (400–lb test) or polypropylene multistrand material, known as braided or tarred mainline, and must be maintained in working order. The cutting blade must be curved, recessed, contained in a holder, or otherwise designed to facilitate its safe use so that direct contact between the cutting surface and the sea turtle or the user is prevented. The cutting instrument must be securely attached to an extended reach handle and be easily replaceable. One extra set of replacement blades meeting these standards must also be carried on board to replace all cutting surfaces on the line cutter or clipper.

(*2*) *An extended reach handle.* The line cutter blade must be securely fastened to an extended reach handle or pole with a minimum length equal to, or greater than, 150 percent of the freeboard, or a minimum of 6 feet (1.83 m), whichever is greater. It is recommended, but not required, that the handle break down into sections. There is no restriction on the type of material used to construct this handle as long as it is sturdy and facilitates the secure attachment of the cutting blade.

(B) *Long-handled dehooker for ingested hooks.* A long-handled dehooking device is intended to remove ingested hooks from sea turtles that cannot be boated. It should also be used to engage a loose hook when a turtle is entangled but not hooked, and line is being removed. The design must shield the barb of the hook and prevent it from re-engaging during the removal process. One long-handled device to remove ingested hooks is required onboard. The minimum design standards are as follows:

(*1*) *Hook removal device.* The hook removal device must be constructed of 5/16–inch (7.94 mm) 316 L stainless steel and have a dehooking end no larger than 1 7/8–inches (4.76 cm) outside diameter. The device must securely engage and control the leader while shielding the barb to prevent the hook from re-engaging during removal. It may not have any unprotected terminal points (including blunt ones), as these could cause injury to the esophagus during hook removal. The device must be of a size appropriate to secure the range of hook sizes and styles used in the pelagic longline fishery targeting swordfish and tuna.

(*2*) *Extended reach handle.* The dehooking end must be securely fastened to an extended reach handle or pole with a minimum length equal to or greater than 150 percent of the freeboard, or a minimum of 6 ft (1.83 m), whichever is greater. It is recommended, but not required, that the handle break down into sections. The handle must be sturdy and strong enough to facilitate the secure attachment of the hook removal device.

(C) *Long-handled dehooker for external hooks.* A long-handled dehooker is required for use on externally-hooked sea turtles that cannot be boated. The long-handled dehooker for ingested hooks described in paragraph (c)(5)(i)(B) of this section would meet this requirement. The minimum design standards are as follows:

(*1*) *Construction.* A long-handled dehooker must be constructed of 5/16–inch (7.94 mm) 316 L stainless steel rod. A 5–inch (12.7–cm) tube T-handle of 1–inch (2.54 cm) outside diameter is recommended, but not required. The design should be such that a fish hook can be rotated out, without pulling it out at an angle. The dehooking end must be blunt with all edges rounded. The device must be of a size appropriate to secure the range of hook sizes and styles used in the pelagic longline fishery targeting swordfish and tuna.

(*2*) *Extended reach handle.* The handle must be a minimum length equal

to the freeboard of the vessel or 6 ft (1.83 m), whichever is greater.

(D) *Long-handled device to pull an ''inverted V''.* This tool is used to pull a ''V'' in the fishing line when implementing the ''inverted V'' dehooking technique, as described in the document entitled ''Careful Release Protocols for Sea Turtle Release With Minimal Injury,'' required under paragraph (a)(3) of this section, for disentangling and dehooking entangled sea turtles. One long-handled device to pull an ''inverted V'' is required onboard. If a 6–ft (1.83 m) J-style dehooker is used to comply with paragraph (c)(5)(i)(C) of this section, it will also satisfy this requirement. Minimum design standards are as follows:

(*1*) *Hook end.* This device, such as a standard boat hook or gaff, must be constructed of stainless steel or aluminum. A sharp point, such as on a gaff hook, is to be used only for holding the monofilament fishing line and should never contact the sea turtle.

(*2*) *Extended reach handle.* The handle must have a minimum length equal to the freeboard of the vessel, or 6 ft (1.83 m), whichever is greater. The handle must be sturdy and strong enough to facilitate the secure attachment of the gaff hook.

(E) *Dipnet.* One dipnet is required onboard. Dipnets are to be used to facilitate safe handling of sea turtles by allowing them to be brought onboard for fishing gear removal, without causing further injury to the animal. Turtles must not be brought onboard without the use of a dipnet. The minimum design standards for dipnets are as follows:

(*1*) *Size of dipnet.* The dipnet must have a sturdy net hoop of at least 31 inches (78.74 cm) inside diameter and a bag depth of at least 38 inches (96.52 cm) to accommodate turtles below 3 ft (0.914 m)carapace length. The bag mesh openings may not exceed 3 inches (7.62 cm) 3 inches (7.62 cm). There must be no sharp edges or burrs on the hoop, or where it is attached to the handle.

(*2*) *Extended reach handle.* The dipnet hoop must be securely fastened to an extended reach handle or pole with a minimum length equal to, or greater than, 150 percent of the freeboard, or at least 6 ft (1.83 m), whichever is greater. The handle must made of a rigid material strong enough to facilitate the sturdy attachment of the net hoop and able to support a minimum of 100 lbs (34.1 kg) without breaking or significant bending or distortion. It is recommended, but not required, that the extended reach handle break down into sections.

(F) *Tire.* A minimum of one tire is required for supporting a turtle in an upright orientation while it is onboard, although an assortment of sizes is recommended to accommodate a range of turtle sizes. The required tire must be a standard passenger vehicle tire, and must be free of exposed steel belts.

(G) *Short-handled dehooker for ingested hooks.* One short-handled device for removing ingested hooks is required onboard. This dehooker is designed to remove ingested hooks from boated sea turtles. It can also be used on external hooks or hooks in the front of the mouth. Minimum design standards are as follows:

(*1*) *Hook removal device.* The hook removal device must be constructed of 1/4–inch (6.35 mm) 316 L stainless steel, and must allow the hook to be secured and the barb shielded without re-engaging during the removal process. It must be no larger than 1 5/16 inch (3.33 cm) outside diameter. It may not have any unprotected terminal points (including blunt ones), as this could cause injury to the esophagus during hook removal. A sliding PVC bite block must be used to protect the beak and facilitate hook removal if the turtle bites down on the dehooking device. The bite block should be constructed of a 3/4 -inch (1.91 cm) inside diameter high impact plastic cylinder (e.g., Schedule 80 PVC) that is 10 inches (25.4 cm) long to allow for 5 inches (12.7 cm) of slide along the shaft. The device must be of a size appropriate to secure the range of hook sizes and styles used in the pelagic longline fishery targeting swordfish and tuna.

(*2*) *Handle length.* The handle should be approximately 16 - 24 inches (40.64 cm - 60.69 cm) in length, with approximately a 5–inch (12.7 cm) long tube T-handle of approximately 1 inch (2.54 cm) in diameter.

(H) *Short-handled dehooker for external hooks.* One short-handled dehooker for external hooks is required onboard. The short-handled dehooker for ingested hooks required to comply with paragraph (c)(5)(i)(G) of this section will also satisfy this requirement. Minimum design standards are as follows:

(*1*) *Hook removal device.* The dehooker must be constructed of 5/16–inch (7.94 cm) 316 L stainless steel, and the design must be such that a hook can be rotated out without pulling it out at an angle. The dehooking end must be blunt, and all edges rounded. The device must be of a size appropriate to secure the range of hook sizes and styles used in the pelagic longline fishery targeting swordfish and tuna.

(*2*) *Handle length.* The handle should be approximately 16 - 24 inches (40.64 cm - 60.69 cm) long with approximately a 5–inch (12.7 cm) long tube T-handle of approximately 1 inch (2.54 cm) in diameter.

(I) *Long-nose or needle-nose pliers.* One pair of long-nose or needle-nose pliers is required on board. Required long-nose or needle-nose pliers can be used to remove deeply embedded hooks from the turtle's flesh that must be twisted during removal. They can also hold PVC splice couplings, when used as mouth openers, in place. Minimum design standards are as follows:

(*1*) *General.* They must be approximately 12 inches (30.48 cm) in length, and should be constructed of stainless steel material.

(*2*) [Reserved]

(J) *Bolt cutters.* One pair of bolt cutters is required on board. Required bolt cutters may be used to cut hooks to facilitate their removal. They should be used to cut off the eye or barb of a hook, so that it can safely be pushed through a sea turtle without causing further injury. They should also be used to cut off as much of the hook as possible, when the remainder of the hook cannot be removed. Minimum design standards are as follows:

(*1*) *General.* They must be approximately 17 inches (43.18 cm) in total length, with 4–inch (10.16 cm) long blades that are 2 1/4 inches (5.72 cm) wide, when closed, and with 13–inch (33.02 cm) long handles. Required bolt cutters must be able to cut hard metals, such as stainless or carbon steel hooks, up to 1/4–inch (6.35 mm) diameter.

(*2*) [Reserved]

(K) *Monofilament line cutters.* One pair of monofilament line cutters is required on board. Required monofilament line cutters must be used to remove fishing line as close to the eye of the hook as possible, if the hook is swallowed or cannot be removed. Minimum design standards are as follows:

(*1*) *General.* Monofilament line cutters must be approximately 7 1/2 inches (19.05 cm) in length. The blades must be 1 in (4.45 cm) in length and 5/8 in (1.59 cm) wide, when closed, and are recommended to be coated with Teflon (a trademark owned by E.I. DuPont de Nemours and Company Corp.).

(*2*) [Reserved]

(L) *Mouth openers/mouth gags.* Required mouth openers and mouth gags are used to open sea turtle mouths, and to keep them open when removing ingested hooks from boated turtles. They must allow access to the hook or line without causing further injury to

the turtle. Design standards are included in the item descriptions. At least two of the seven different types of mouth openers/gags described below are required:

(*1*) *A block of hard wood.* Placed in the corner of the jaw, a block of hard wood may be used to gag open a turtle's mouth. A smooth block of hard wood of a type that does not splinter (e.g. maple) with rounded edges should be sanded smooth, if necessary, and soaked in water to soften the wood. The dimensions should be approximately 11 inches (27.94 cm) 1 inch (2.54 cm) 1 inch (2.54 cm). A long-handled, wire shoe brush with a wooden handle, and with the wires removed, is an inexpensive, effective and practical mouth-opening device that meets these requirements.

(*2*) *A set of three canine mouth gags.* Canine mouth gags are highly recommended to hold a turtle's mouth open, because the gag locks into an open position to allow for hands-free operation after it is in place. A set of canine mouth gags must include one of each of the following sizes: small (5 inches)(12.7 cm), medium (6 inches) (15.24 cm), and large (7 inches)(17.78 cm). They must be constructed of stainless steel. A 1 -inch (4.45 cm) piece of vinyl tubing (3/4–inch (1.91 cm) outside diameter and 5/8–inch (1.59 cm) inside diameter) must be placed over the ends to protect the turtle's beak.

(*3*) *A set of two sturdy dog chew bones.* Placed in the corner of a turtle's jaw, canine chew bones are used to gag open a sea turtle's mouth. Required canine chews must be constructed of durable nylon, zylene resin, or thermoplastic polymer, and strong enough to withstand biting without splintering. To accommodate a variety of turtle beak sizes, a set must include one large (5 1/2 - 8 inches(13.97 cm - 20.32 cm) in length), and one small (3 1/2 - 4 1/2 inches (8.89 cm - 11.43 cm) in length) canine chew bones.

(*4*) *A set of two rope loops covered with hose.* A set of two rope loops covered with a piece of hose can be used as a mouth opener, and to keep a turtle's mouth open during hook and/or line removal. A required set consists of two 3–foot (0.91 m) lengths of poly braid rope (3/8–inch (9.52 mm) diameter suggested), each covered with an 8–inch (20.32 cm) section of 1/2 inch (1.27 cm) or 3/4 inch (1.91 cm) light-duty garden hose, and each tied into a loop. The upper loop of rope covered with hose is secured on the upper beak to give control with one hand, and the second piece of rope covered with hose is secured on the lower beak to give control with the user's foot.

(*5*) *A hank of rope.* Placed in the corner of a turtle's jaw, a hank of rope can be used to gag open a sea turtle's mouth. A 6–foot (1.83 m) lanyard of approximately 3/16–inch (4.76 mm) braided nylon rope may be folded to create a hank, or looped bundle, of rope. Any size soft-braided nylon rope is allowed, however it must create a hank of approximately 2 - 4 inches (5.08 cm - 10.16 cm) in thickness.

(*6*) *A set of four PVC splice couplings.* PVC splice couplings can be positioned inside a turtle's mouth to allow access to the back of the mouth for hook and line removal. They are to be held in place with the needle-nose pliers. To ensure proper fit and access, a required set must consist of the following Schedule 40 PVC splice coupling sizes: 1 inch (2.54 cm), 1 1/4 inch (3.18 cm), 1 1/2 inch (3.81 cm), and 2 inches (5.08 cm).

(*7*) *A large avian oral speculum.* A large avian oral speculum provides the ability to hold a turtle's mouth open and to control the head with one hand, while removing a hook with the other hand. The avian oral speculum must be 9–inches (22.86 cm) long, and constructed of 3/16–inch (4.76 mm) wire diameter surgical stainless steel (Type 304). It must be covered with 8 inches (20.32 cm) of clear vinyl tubing (5/16–inch (7.9 mm) outside diameter, 3/16–inch (4.76 mm) inside diameter).

(ii) *Handling and release requirements.* (A) Sea turtle bycatch mitigation gear, as required by paragraphs (c)(5)(i)(A) - (D) of this section, must be used to disengage any hooked or entangled sea turtles that cannot be brought on board. Sea turtle bycatch mitigation gear, as required by paragraphs (c)(5)(i)(E) - (L) of this section, must be used to facilitate access, safe handling, disentanglement, and hook removal or hook cutting of sea turtles that can be brought on board, where feasible. Sea turtles must be handled, and bycatch mitigation gear must be used, in accordance with the careful release protocols and handling/release guidelines specified in paragraph (a)(3) of this section, and in accordance with the onboard handling and resuscitation requirements specified in § 223.206(d)(1)of this title.

(B) *Boated turtles.* When practicable, active and comatose sea turtles must be brought on board, with a minimum of injury, using a dipnet as required by paragraph (c)(5)(i)(E) of this section. All turtles less than 3 ft (.91 m) carapace length should be boated, if sea conditions permit.

(*1*) A boated turtle should be placed on a standard automobile tire, or cushioned surface, in an upright orientation to immobilize it and facilitate gear removal. Then, it should be determined if the hook can be removed without causing further injury. All externally embedded hooks should be removed, unless hook removal would result in further injury to the turtle. No attempt to remove a hook should be made if it has been swallowed and the insertion point is not visible, or if it is determined that removal would result in further injury. If a hook cannot be removed, as much line as possible should be removed from the turtle using monofilament cutters as required by paragraph (c)(5)(i) of this section, and the hook should be cut as close as possible to the insertion point before releasing the turtle, using boltcutters as required by paragraph (c)(5)(i) of this section. If a hook can be removed, an effective technique may be to cut off either the barb, or the eye, of the hook using bolt cutters, and then to slide the hook out. When the hook is visible in the front of the mouth, a mouth-opener, as required by paragraph (c)(5)(i) of this section, may facilitate opening the turtle's mouth and a gag may facilitate keeping the mouth open. Short-handled dehookers for ingested hooks, long-nose pliers, or needle-nose pliers, as required by paragraph (c)(5)(i) of this section, should be used to remove visible hooks from the mouth that have not been swallowed on boated turtles, as appropriate. As much gear as possible must be removed from the turtle without causing further injury prior to its release. Refer to the careful release protocols and handling/release guidelines required in paragraph (a)(3) of this section, and the handling and resuscitation requirements specified in § 223.206(d)(1) of this title, for additional information.

(*2*) [Reserved]

(C) *Non-boated turtles.* If a sea turtle is too large, or hooked in a manner that precludes safe boating without causing further damage or injury to the turtle, sea turtle bycatch mitigation gear required by paragraphs (c)(5)(i)(A) - (D) of this section must be used to disentangle sea turtles from fishing gear and disengage any hooks, or to clip the line and remove as much line as possible from a hook that cannot be removed, prior to releasing the turtle, in accordance with the protocols specified in paragraph (a)(3) of this section.

(*1*) Non-boated turtles should be brought close to the boat and provided with time to calm down. Then, it must be determined whether or not the hook can be removed without causing further injury. All externally embedded hooks must be removed, unless hook removal would result in further injury to the

turtle. No attempt should be made to remove a hook if it has been swallowed, or if it is determined that removal would result in further injury. If the hook cannot be removed and/or if the animal is entangled, as much line as possible must be removed prior to release, using a line cutter as required by paragraph (c)(5)(i) of this section. If the hook can be removed, it must be removed using a long-handled dehooker as required by paragraph (c)(5)(i) of this section. Without causing further injury, as much gear as possible must be removed from the turtle prior to its release. Refer to the careful release protocols and handling/release guidelines required in paragraph (a)(3) of this section, and the handling and resuscitation requirements specified in § 223.206(d)(1) for additional information.

(*2*) [Reserved]

(iii) * * *

(C) *Hook size, type, and bait.* Vessels fishing outside of the NED closed area, as defined at § 635.2, that have pelagic longline gear on board, and that have been issued, or are required to have, a limited access swordfish, shark, or tuna longline category permit for use in the Atlantic Ocean, including the Caribbean Sea and the Gulf of Mexico, are limited, at all times, to possessing on board and/or using only whole finfish and/or squid bait, and the following types and sizes of fishing hooks:

(*1*) 18/0 or larger circle hooks with an offset not to exceed 10°; and/or,

(*2*) 16/0 or larger non-offset circle hooks.

(*i*) For purposes of paragraphs (c)(5)(iii)(C)(*1*), and (c)(5)(iii)(C)(*2*) of this section, the outer diameter of an 18/0 circle hook at its widest point must be no smaller than 2.16 inches (55 mm), and the outer diameter of a 16/0 circle hook at its widest point must be no smaller than 1.74 inches (44.3 mm), when measured with the eye of the hook on the vertical axis (y-axis) and perpendicular to the horizontal axis (x-axis). The distance between the hook point and the shank (*i.e.*, the gap) on an 18/0 circle hook must be no larger than 1.13 inches (28.8 mm), and the gap on a 16/0 circle hook must be no larger than 1.01 inches (25.8 mm). The allowable offset is measured from the barbed end of the hook, and is relative to the parallel plane of the eyed-end, or shank, of the hook when laid on its side. The only allowable offset circle hooks are those that are offset by the hook manufacturer.

(*ii*) [Reserved]

■ 5. In § 635.23, paragraph (f)(3) is revised as follows:

§ 635.23 Retention limits for BFT.

* * * * *

(f) * * *

(3) For pelagic longline vessels fishing in the Northeast Distant closed area, as defined under § 635.2, under the exemption specified at § 635.21(c)(2)(v), all BFT taken incidental to fishing for other species while in the Northeast Distant closed area may be retained up to a maximum of 25 mt for all vessels so authorized, notwithstanding the retention limits and target catch requirements specified in paragraph (f)(1) of this section.

* * * * *

■ 6. In § 635.27, paragraph (a)(3) is revised as follows:

§ 635.27 Quotas.

* * * * *

(a) * * *

(3) *Longline category quota.* The total amount of large medium and giant BFT that may be caught incidentally and retained, possessed, or landed by vessels for which Longline category Atlantic tunas permits have been issued is 8.1 percent of the overall U.S. BFT quota. In the initial quota specifications issued under paragraph (a) of this section, no more than 60.0 percent of the Longline category quota may be allocated for landing in the area south of 31° 00′; N. lat. In addition, 25 mt shall be allocated for incidental catch by pelagic longline vessels fishing in the Northeast Distant closed area, as defined under § 635.2, under the exemption specified at § 635.21(c)(2)(v).

* * * * *

■ 7. In § 635.71, paragraph (a)(33) is revised as follows:

§ 635.71 Prohibitions.

* * * * *

(a) * * *

(33) Fish with or deploy any fishing gear from a vessel with pelagic longline gear on board without carrying the required sea turtle bycatch mitigation gear, as specified at § 635.21(c)(5)(i).

* * * * *

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