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ENVIRONMENTAL ASSESSMENT

AND

REGULATORY IMPACT REVIEW

FOR AN

INTERIM FINAL RULE

REQUIRING VESSELS IN THE ATLANTIC PELAGIC LONGLINE FISHERY TO POSSESS AND USE DIPNETS AND LINE CLIPPERS AND MODIFYING THE LEVEL OF OBSERVER COVERAGE IN THE ATLANTIC SHARK DRIFT GILLNET FISHERY

United States Department of Commerce
National Oceanic and Atmospheric Administration
National Marine Fisheries Service
Highly Migratory Species Management Division

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Interim Final Rule Requiring Vessels in the Atlantic Pelagic Longline Fishery to Possess and Use Dipnets and Line Clippers and Modifying the Level of Observer Coverage in the Atlantic Shark Drift Gillnet Fishery

Framework Adjustment to the Fishery Management Plan for Atlantic Tunas, Swordfish, and Sharks

Actions: Require pelagic longline vessels to possess and use dipnets and line clippers to disentangle sea turtles from fishing gear to reduce post-release mortality and serious injury. Reduce the level of observer coverage in the Atlantic shark drift gillnet fishery.

Type of statement: Environmental Assessment and Regulatory Impact Review

Lead Agency: National Marine Fisheries Service

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Abstract: This interim final rule attempts to reduce the level of sea turtle bycatch mortality in the Atlantic pelagic longline fishery (which includes the Atlantic Ocean, Gulf of Mexico, and the Caribbean Sea). In developing the rule, the Office of Sustainable Fisheries, National Marine Fisheries Service (NMFS), examined various alternatives, including requiring gear that meets NMFS design and performance standards, maintaining the fishery in a status quo condition, and implementing alternative gear requirements. The final action will implement a requirement that all vessels in the pelagic longline fleet possess on board and use a dipnet and line clipper that meets the NMFS performance and design standards. The interim final rule will modify current regulations to reduce the level of observer coverage required in the Atlantic shark drift gillnet fishery. Recent scientific analysis indicates that less than 100 percent observer coverage is adequate outside the right whale calving season to provide reasonable estimates of marine mammal and sea turtle takes in the shark drift gillnet fishery. In addition, the definition of pelagic longline gear is being modified to remove the high-flyer component.

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1.0. PURPOSE AND NEED FOR ACTION

1.1 Atlantic Pelagic Longline Fishery / Sea Turtles

Introduction

A major concern in the management of the Atlantic pelagic longline fleet is the incidental take and mortality of threatened and endangered species, specifically leatherback and loggerhead sea turtles. These animals are highly migratory and exist in many of the oceanic locales targeted by United States pelagic longline fishing vessels. The sea turtles are accidentally hooked or entangled in pelagic longline gear that is meant to target primarily tunas and swordfish.

A Biological Opinion (BO) issued on June 30, 2000, by the Office of Protected Resources, NMFS, found that the continued operation of the Atlantic pelagic longline fishery for highly migratory species (HMS) is likely to jeopardize the continued existence of leatherback and loggerhead sea turtles. Since the BO was issued, NMFS has concluded that further analyses of observer data and additional population modeling of loggerhead sea turtles are needed to determine more precisely the impact of the pelagic longline fishery on turtles. NMFS reinitiated consultation to consider these factors and anticipates issuing a new BO in March 2001. In the interim, NMFS implemented emergency regulations, consistent with National Standard 9 of the Magnuson-Stevens Fishery Conservation and Management Act, and based on historical data on sea turtle takes and mortality, to minimize bycatch and bycatch mortality of sea turtles incidentally caught in the pelagic longline fishery.

The emergency rule, effective October 10, 2000, established a 55,970 square mile time-area closure in the northeast distant statistical sampling (NED) area to reduce the number of sea turtle takes in that region. To reduce post-release mortality, the emergency rule also requires pelagic longline vessels to carry on board and use dipnets and line clippers. These regulations will expire on April 9, 2001, unless they are extended.

The regulations define pelagic longline gear as a longline that is suspended by floats in the water column and that is not fixed to or in contact with the ocean bottom. As defined, pelagic longline gear consists of five components: a power-operated longline hauler, a mainline, high-flyers, floats capable of supporting the length of the mainline, and leaders (gangions) with hooks. Those regulations further state that the removal of any one of these components from a vessel constitutes the removal of pelagic longline gear. Vessel operators removing one or all of the listed components would be eligible to fish with other gear in the closed areas and would not be required to operate a VMS while at sea. Since publication of the time and area requirements (65 FR 47214, August 1, 2000) , NMFS has become aware that it is possible to use a longline that is suspended by floats without the use of high-flyers. Operators of fishing vessels could potentially utilize the remainder of the defined components of pelagic longline gear to target tunas, swordfish and sharks in the closed areas, thereby undermining the objective of bycatch reduction and reducing the benefits of the closures.

Final Action

In 1995, NMFS conducted a workshop to evaluate procedures for handling and care of incidentally caught sea turtles, which resulted in the production of guidelines (Guidelines for Handling Marine Turtles Hooked or Entangled in the Hawaii Longline Fishery; Results of an Expert workshop Held in Honolulu, Hawaii, March 15-17, 1995, NOAA, Tech. Memo, NMFS, NOAA-TM-NMFS, SWFSC-222). In this workshop report, NMFS concluded that additional injury may occur during the retrieval of turtles caught on longline gear and that turtles released with varying lengths of line trailing from the mouth or body may later ingest this line or become entangled in the line, thereby inflicting damage or eventual death by strangulation. Among the recommended guidelines was a requirement to remove line from entangled turtles and, if hooked, that the hook be removed or the line cut at the eye of the hook. If the turtle is hooked internally, the panel of experts determined that the best practice is to cut the line as close to the eye of the hook as possible, leaving as little line as possible attached to the turtle. These guidelines were adopted in the emergency rule.

This interim final rule will adopt the measures in the emergency rule that require the possession and use of dipnets and line clippers on Atlantic HMS pelagic longline vessels. NMFS believes that the dipnets and line clippers are necessary to reduce bycatch mortality under National Standard 9 of the Magnuson-Stevens Fishery Conservation and Management Act. The agency is implementing these regulations as an interim final rule to avoid having the requirements lapse following the expiration of the emergency rule. Because the measures to be implemented by this rule have been in place since October 13, 2000, NMFS believes that there will be minimal impact to fishermen by this final action. The emergency rule had a 90 day comment period, and NMFS received one suggestion concerning the modification of the line clipper blade to cut heavier line. At a technical gear workshop held in Silver Spring, MD on January 17 and 18, 2001, industry participants expressed their general support and approval of the dipnet and line clipper gear requirements. Comment on this action will be accepted for 30 days following publication of this regulation.

NMFS is modifying the definition of pelagic longline gear to remove the high-flyer component. This measure is necessary because NMFS has become aware that it is possible to use a longline that is suspended by floats without the use of high-flyers. This gear could potentially be utilized to target tunas, swordfish, and sharks in closed area, undermining the objective of bycatch reduction and reducing the benefits of the time and area closures.

1.2 Shark Drift Gillnet Fishery / Observer Coverage

Introduction

The drift gillnet fishery for sharks off the southeast coast of the United States is believed to be responsible for the bycatch of at least one right whale, and interactions with endangered sea turtles as well as valuable finfish have been observed. The Biological Opinion released in 1999 adopted the Atlantic Large Whale Take Reduction Plan recommendation for 100 percent

observer coverage in right whale calving season (November 15 to March 31). The fishery management plan (FMP) for Atlantic Tunas, Swordfish, and Sharks adopted the 100 percent observer requirement year-round in an effort to improve the estimates of bycatch and bycatch mortality of protected species, juvenile sharks, and other finfish. The use of drift gillnet gear was prohibited in the Atlantic shark fisheries unless a NMFS-approved observer was on board the vessel. However, recent scientific analysis indicates that a 53 percent coverage rate, rather than 100 percent coverage, is adequate to provide reasonable estimates of sea turtle and marine mammal takes in the shark drift gillnet fishery. During the right whale calving season, NMFS will maintain the requirement for 100 percent observer coverage.

Final Action

Based on this analysis, this interim final rule modifies the observer coverage requirements so that 100 percent is required only during the right whale calving season, and a statistically significant level, which is 53% at this time, is maintained the rest of the year. The appropriate level of observer coverage will be reevaluated as necessary.

2.0 ALTERNATIVES INCLUDING THE FINAL ACTION

2.1 Atlantic Pelagic Longline Fishery / Sea Turtles

The following alternatives represent the range of options NMFS considered to reduce the serious injury and post-release mortality of sea turtles following incidental capture by pelagic longline gear. NMFS also considered a closure of the pelagic longline fishery, but felt that the human impacts were too severe for this issue to be examined at this time. The alternatives are evaluated in Section 7.0 with respect to ecological, social, and economic impacts.

Final Action: Require pelagic longline vessels to carry on board and use dipnets and line clippers

All vessels permitted to fish for Atlantic HMS with pelagic longline gear on board will be required to have a dipnet and a line clipper on board that meets NMFS design and performance standards and use them to remove gear from incidentally captured turtles. The dipnet will allow smaller-sized turtles to be brought on board the fishing vessel to allow for more complete disentanglement and dehooking. The line clipper will be used to remove gear from turtles in the water as well as from turtles brought on board the vessel. Specific handling instructions will provide guidance as to how to prevent injury to the sea turtles while removing fishing gear.

Final Action: Removal of the term "high-flyer" from the list of components constituting pelagic longline gear

Removing high-flyers from the definition of pelagic longline gear will prevent vessels from utilizing modified longline gear to target tunas, swordfish and sharks in closed areas, which would undermine the conservation objectives of the time and area closures.

Not Selected at this Time: Status quo

This alternative would maintain the existing regulations regarding pelagic longline gear and sea turtle handling and release for the pelagic longline fishery in the Atlantic Ocean, Gulf of Mexico, and Caribbean Sea. The provisions of the HMS emergency rule would remain in effect until April 9, 2001, at which time they would expire. The handling procedures implemented under the Endangered Species Act would remain in effect.

Not Selected at this Time: Require pelagic longline vessels to carry on board and use dehooking devices

All vessels permitted to fish for Atlantic HMS with pelagic longline gear on board would be required to have a dehooking device on board and use it to remove gear from incidentally captured turtles.

Not Selected at this Time: Require use of corrodible hooks on all pelagic longline gear

All vessels permitted to fish for Atlantic HMS with pelagic longline gear on board would be required to use corrodible hooks only.

Not Selected at this Time: Require use of circle hooks on all pelagic longline gear

All vessels permitted to fish for Atlantic HMS with pelagic longline gear on board would be required to use circle hooks only.

2.2 Shark Drift Gillnet Fishery / Observer Coverage

Final Action: Reduce the required level of observer coverage in the Atlantic shark drift gillnet fishery to 53 percent outside the right whale calving season

All vessels issued Federal Atlantic shark limited access permits and that fish for Atlantic sharks with a gillnet have modified observer coverage requirements so that 100 percent is required only during the right whale calving season, and a statistically significant level, which is 53% at this time, is maintained the rest of the year. The appropriate level of observer coverage will be reevaluated as necessary.

Not Selected at this Time: Status quo

This alternative would maintain the 100 percent observer coverage requirement for the Atlantic shark drift gillnet fishery year-round.

3.0 ECONOMIC CONSIDERATIONS

Before implementing management measures, NMFS must consider the economic impacts in accordance with the Regulatory Flexibility Act (Reg Flex Act) and Executive Order 12866 (E.O. 12866). The requirements under E.O. 12866 and Reg Flex Act are similar. Both require a description of the need for the action, the management objectives, and a description of the expected economic impacts. They also require an analysis of each alternative, the expected effects, and an explanation of why the final action is chosen. The main difference between the Reg Flex Act and E.O. 12866 is the focus of the analysis. While the Reg Flex Act focuses on the economic impacts on individual businesses, E.O. 12866 focuses on the economic impacts on the entire fishery.

3.1 Regulatory Flexibility Act

The purpose of the Reg Flex Act is to require agencies to assess the economic impacts of their regulations on small entities and to encourage Federal agencies to utilize innovative administrative procedures when dealing with small entities. Unless the agency certifies that the rule will not, if adopted, have a significant economic impact on a substantial number of small entities, the Reg Flex Act requires agencies to perform an Initial Regulatory Flexibility Analysis (IRFA) during the proposed rule stage and, after considering public comment, a Final Regulatory Flexibility Analysis (FRFA) during the final rule stage. In the case of this rulemaking, NMFS determined that there will be no significant economic impact on small entities, so no regulatory flexibility analyses were not prepared.

3.2 Executive Order 12866

In compliance with Executive Order 12866, the Department of Commerce and NOAA require the preparation of a Regulatory Impact Review (RIR) for all regulatory actions that either implement a new FMP or significantly amend an existing one, or that may be significant in that they reflect agency policy concerns and are of public interest. The RIR is part of the process of preparing and reviewing FMPs and regulatory actions and is intended to provide a comprehensive review of the changes in net economic benefits to society associated with regulatory actions. Thus, the focus of the RIR is on the net economic benefit from the entire fishery, not the net economic benefit from individual fishermen. The analysis also provides a review of the problems and policy objectives prompting the regulatory proposals and an evaluation of the major alternatives that could be used to solve the problems. The purpose of the analysis is to ensure that the regulatory agency systematically and comprehensively considers all available alternatives so that the public welfare is enhanced in the most efficient and cost-effective way.

3.3 General Considerations

Net economic benefits, net national benefits, non-market valuation, and consumer and producer surplus are discussed in the HMS FMP. These economic measurements help NMFS to evaluate

the economic importance of a fishery and the related industries and facilitate assessment of the impacts of regulations.

4.0 SOCIAL IMPACTS

Mandates to conduct social impact assessments come from both the National Environmental Policy Act (NEPA) and the Magnuson-Stevens Fishery Conservation and Management Act. NEPA requires federal agencies to consider the interactions of natural and human environments by using a "systematic, interdisciplinary approach which will ensure the integrated use of the natural and social sciences...in planning and decision-making" [NEPA section 102(2)(a)]. Moreover, agencies need to address the aesthetic, historic, cultural, economic, social, or health effects which may be direct, indirect, or cumulative. Consideration of social impacts is a growing concern as fisheries experience increased participation and/or declines in stocks. With an increasing need for management action, the consequences of these actions need to be examined in order to mitigate the negative impacts experienced by the populations concerned.

Social impacts are generally the consequences to human populations that follow from some type of public or private action. They may include alterations to the ways people live, work or play, relate to one another, and organize to meet their needs. In addition, cultural impacts, which may involve changes in values and beliefs that affect people's way of identifying themselves within their occupation, communities, and society in general, are included under this interpretation. Social impact analyses help determine the consequences of policy action in advance by comparing the status quo with the projected impacts. Although public hearings and scoping meetings provide input from those concerned with a particular action, they do not constitute a full overview of the affected constituents. An assessment of the impacts of the rulemaking is presented in sections seven through nine.

5.0 AFFECTED ENVIRONMENT

Pelagic longline and drift gillnet fishermen encounter many species of fish; some of those captured are marketable and thus are retained, others are discarded for economic or regulatory reasons. Species frequently encountered in the pelagic longline fishery are swordfish, tunas, and sharks, as well as billfish, dolphin, wahoo, king mackerel, and other finfish species. The shark drift gillnet fishery primarily catches sharks, but also takes other species as bycatch, including king mackerel, little tunny, rays, crevalle jack, cobia, great barracuda, tarpon, and Spanish mackerel. Sometimes pelagic longline and drift gillnet fishermen also catch protected species, which include sea turtles, marine mammals, or sea birds. All of these species are federally managed, and NMFS seeks to control the mortality that results from fishing effort. Detailed descriptions of the life histories and population status of those species are given in the Atlantic Tunas, Swordfish, and Sharks Fishery Management Plan (HMS FMP), and are not repeated here. The status of Atlantic swordfish, Atlantic billfish, Atlantic tunas, large coastal and pelagic sharks, other finfish, marine mammals, and seabirds is summarized in chapter 5 of the Final Supplemental Environmental Impact Statement (FSEIS) for the Regulatory Amendment to the HMS FMP, and is not repeated here.

5.1 Sea Turtles

Leatherback and loggerhead sea turtles are the sea turtle species predominantly caught in the Atlantic HMS pelagic longline fishery. Turtles are caught throughout the range of the fishery (Gulf of Mexico, Caribbean, Atlantic Ocean from Florida to Maine, and outside the U.S. EEZ), but the sets with the greatest number of turtles incidentally captured occur in the NED area (see Figure 5.1) in the third and fourth quarter of the year. Many sea turtle populations are slow to recover from increased fishing mortality because their reproductive potential is low (late sexual maturation, low juvenile survival). General information about the biology and status of sea turtles can be found in the Recovery Plans for each species (available through the Office of Protected Resources, NMFS); the status of sea turtle populations is summarized in Table 5.1. A high percentage of sea turtles are released alive from pelagic longline entanglements. However, NMFS is concerned about serious injuries and post-release mortality.

Figure 5.1 **Geographic areas used in summaries of pelagic logbook data from 1992 - 1998.** Source: Cramer and Adams, 2000.

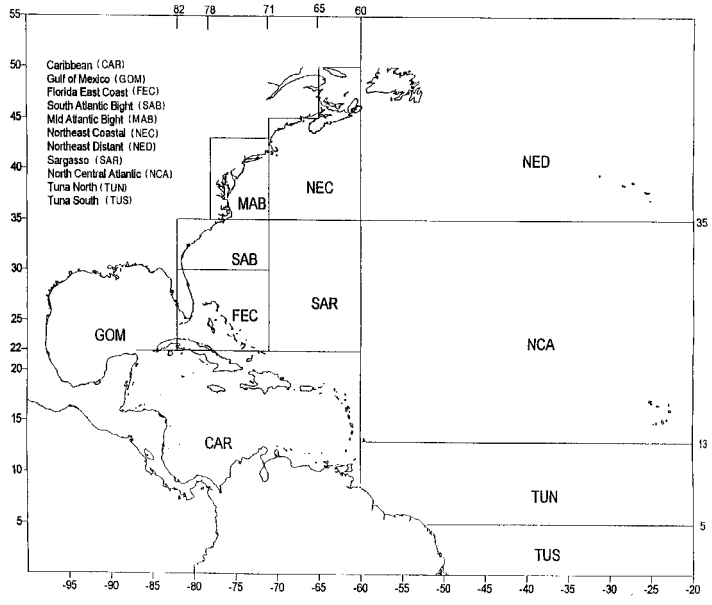

Table 5.1 Status of Atlantic sea turtle populations: Species taken in the pelagic longline fishery 1992-1997. Source: NMFS, 1999a.

Species/Stock	**Status: trend in U.S. nesting population**
Loggerhead: Northern Sub-population	Threatened: declining through mid-1980s, no trend detected since that time
Leatherback	Endangered: loss of some nesting populations, otherwise stable
Green	Endangered: increasing
Kemp's Ridley	Endangered: thought to be increasing
Hawksbill	Endangered: unknown if there is a recent trend

5.2 Information from the June 30, 2000, Biological Opinion for Atlantic Highly Migratory Species Fisheries

The following excerpt is taken directly from the June 30, 2000, BO and is included here for background information only. Please refer to the BO for a complete discussion of sea turtle interactions with the Atlantic HMS pelagic longline fishery.

> Sea turtle bycatch estimates from observations of takes in the pelagic longline component of the swordfish/tuna/shark fishery number in the thousands. The incidental take estimates anticipated in Scott and Brown (1997), used in the last Biological Opinion, were revised and updated by estimates provided in Johnson *et al.* (1999) and Yeung (1999). The estimated numbers for all species of sea turtles are provided in Table 5.2 below. These estimates are little changed from those used in developing the previous (April 23, 1999) biological opinion, and are provided as background in understanding the magnitude of take NMFS believed to be occurring in the fishery.

Table 5.2 Estimated Sea Turtle Takes Recorded in the U.S. Atlantic and Gulf of Mexico Pelagic Longline Fishery for Swordfish, Tuna and Sharks, 1992 - 1998 (based on estimates in Johnson *et.al.*, 1999 and Yeung, 1999b, summed from estimates stratified by species and area).

Species	**Loggerhead**		**Leatherback**		**Green**		**Hawksbill**		**Kemp's**		**Sum Total****
Year	Total	Dead*	Total	Dead*	Total	Dead*	Total	Dead*	Total	Dead*	
1992	247	18	871	87	129	18	30	0	0	0	1295
1993	374	9	889	12	25	0	0	0	0	0	1315
1994	1279	12	700	12	24	0	0	0	15	0	2047
1995	2169	0	925	0	31	0	0	0	0	0	3290
1996	410	0	674	0	0	0	0	0	0	0	1084
1997	329	0	357	0	0	0	13	0	23	0	765
1998	472	0	169	0	0	0	77	0	0	0	718

* Does not account for death that may occur after release, which several studies have shown to be 29-33%
**Totals include unidentified turtles not listed in the table.

> Preliminary information from observer data for 1999 indicates that 45 leatherbacks, 64 loggerheads and 3 unidentified turtles were observed taken; 1 of the loggerheads was dead when boated (NMFS unpublished data). The location of the hook was not always recorded (N=60) and thus it is assumed that all animals for which this information was not recorded were seriously injured. Thus, 19 of 45 (42%) leatherbacks, 50 of 64 (78%) loggerheads and 1 of 3 (33%) unidentified turtles were assumed to have ingested the hook and

were seriously injured or dead. In addition, many animals were released with line still attached, which may also contribute to subsequent mortality.

As noted above, at 3% observer coverage, take levels documented in 1999 indicate that up to 50 loggerheads and 19 leatherbacks were observed "hooked by ingestion" or moribund upon release. and up to 83 loggerheads and 32 leatherbacks would have been observed "hooked by ingestion" or moribund at a 5% level of coverage. The lower figures were calculated based on an assumption of 5% observer data. However, only about a 3% coverage level was obtained (G. Scott, pers. comm.), so the observed levels of take would have been considerably higher, had the required 5% coverage level been achieved (as represented by the higher numbers).

As previously stated, the incidental take statement anticipated the following levels of take:

(a) 690 leatherback sea turtles *(Dermochelys coriacea*), entangled or hooked (annual estimated number) of which no more than 11 are observed hooked by ingestion or moribund when released.
(b) 1541 loggerhead sea turtles *(Caretta caretta*) entangled or hooked (annual estimated number); of which no more than 23 may be hooked by ingestion or observed moribund when released.

Witzell (1999) summarized turtle catch from logbook data (1992 - 1995) for sets targeting swordfish and tuna, or both. The Northeast Distant Area accounted for 70% of the loggerhead and 47% of the leatherback captures that were reported north of the mid-Atlantic Bight. June through November were the peak months for reported captures. A review of observer reports for sets targeting all species between 1990 - 1996, yielded similar results (Hoey, 1998). The Northeast Distant accounted for 75% of the loggerhead and 40% of the leatherback captures for all sampling areas. The Northeast Distant Area also was the only area where interactions of four or more turtles occurred on a single set. July through November were the predominant months for turtle captures (Hoey 1998).

As noted in Section 1.1, since the BO was issued, NMFS has concluded that further analyses of observer data and additional population modeling of loggerhead sea turtles are needed to determine more precisely the impact of the pelagic longline fishery on sea turtles. These analyses will include potential gear measures for reducing sea turtle takes, time/area closure analyses, and modeling to assess the impacts of fisheries on populations and subpopulations of sea turtles and the appropriate level of mortality. A reevaluation of the observer records for hooking location and level of serious injury may also be conducted.

6.0 DESCRIPTION OF THE FISHERIES

6.1 Pelagic Longline Fishery for Atlantic HMS

The U.S. pelagic longline fishery for Atlantic HMS primarily targets swordfish, yellowfin tuna, or bigeye tuna in various areas and seasons. Although this gear can be modified (i.e., depth of set, hook type, etc.) to target either swordfish or tuna, like other hook and line fisheries, it is a multi-species fishery. Longline gear sometimes attracts and hooks non-target finfish with no commercial value, as well as species that cannot be retained by commercial fishermen, such as billfish. Pelagic longlines may also interact with protected species such as marine mammals, sea turtles, and sea birds.

Pelagic longline gear is composed of several parts. The primary fishing line, or mainline of the longline system, can vary from five to 40 miles in length, with approximately 20 to 30 hooks per mile. The depth of the mainline is determined by ocean currents and the length of the floatline, which connects the mainline to several buoys and periodic markers with radar reflectors and radio beacons. Each individual hook is connected by a leader to the mainline. Lightsticks, which contain chemicals that emit a glowing light, are often used. When attached to the hook and suspended at a certain depth, they attract bait fish that may attract pelagic predators. When targeting swordfish, the lines generally are deployed at sunset and hauled in at sunrise to take advantage of the nocturnal near-surface feeding habits of this species (Berkeley *et al*., 1981). In general, longlines targeting tuna are set in the morning, deeper in the water column, and hauled back in the evening. Fishing vessels preferentially target swordfish and tuna during periods when the moon is full to take advantage of increased densities of pelagic species near the surface.

Reported effort, in terms of number of vessels fishing, has fluctuated in recent years but has not shown obvious trends in the distant water, southeast coastal, and northeast coastal areas. Although swordfish appear to have remained the primary target species in the Caribbean, distant water, and southeast coastal fishery areas, the proportion of swordfish in the reported landings has decreased in both the distant water and southeast coastal areas. In the case of the distant water fishery, an increasing proportion of the reported landings are bigeye, albacore, yellowfin, and skipjack tuna.

Swordfish and tuna commercial quotas are monitored through a combination of vessel logbooks, tally sheets, port sampling, dealer reports, and scientific observer coverage. Logbooks contain information on fishing vessel activity, including dates of trips, number of sets, area fished, and the number of marine species caught, released, and retained. In some cases, social and economic data such as volume and cost of fishing inputs are also provided. Please refer to section 2.5.1 of the HMS FMP and section 6.0 of the FSEIS for a more detailed description and explanation of the Atlantic pelagic longline fishery.

6.2 Shark Drift Gillnet Fishery

Gillnet fishing for sharks in the southeast United States (Florida and Georgia coasts) has existed for many years. The primary areas of activity are between Fort Pierce and Port Salerno, FL and northwest of Key West, FL. While the number of participants has fluctuated, the fishery is currently comprised of 4 to 12 vessels that are approximately 8 to 17 meters long. The gillnets are typically 547 to 2,736 meters long and 9.1 to 13.7 meters deep with stretched mesh from 12.7 to 25.4 cm. Each fishing trip is usually less than 13 hours long and is conducted in nearshore areas, typically less than 30 miles from port. In most cases, fishing behavior involves setting the gillnet in the water to drift with one end attached to the vessel. Because South Carolina, Georgia, and Florida have prohibited the use of commercial gillnets in state waters, the vessels fish in deeper waters under Federal jurisdiction, which can reduce their fishing effectiveness. Please refer to section 2.5.5 of the HMS FMP for a more detailed description and explanation of the Atlantic shark drift gillnet fishery.

7.0 ENVIRONMENTAL CONSEQUENCES OF THE ALTERNATIVES

7.1 Atlantic Pelagic Longline Fishery / Sea Turtles

The following section outlines the alternatives considered by NMFS and provides an overview of the anticipated impacts of these actions.

Final Action: Require pelagic longline vessels to carry on board and use dipnets and line clippers

This action will require HMS-permitted vessels with pelagic longline gear on board to carry at all times and use dipnets and line clippers that meet NMFS design and performance standards to bring on board and disentangle gear from incidentally captured sea turtles.

Ecological Impacts

This action will facilitate the removal of pelagic longline gear that hooks or entangles sea turtles. Using a dipnet and line clipper will allow monofilament lines and ropes to be cut from the animal as close to the hook or point of attachment as possible and also facilitate removal of hooks located in sea turtle mouths, beaks, or bodies. This will reduce the serious injury and/or mortality of sea turtles from remaining hooks or trailing gear that results in impediments to movement, increased risk of entanglement in other gear, and hook wounds that cannot heal due to attached gear. The reduction in serious injury and/or mortality of sea turtles should contribute to increased turtle recovery of the threatened loggerhead and endangered leatherback sea turtles. Large turtles are not required to be brought on board for disentanglement because more damage may be done to the turtle from bringing it on board than from removing as much gear as possible while it is still in the water. Every situation will be slightly different and fishermen must use their best judgement to avoid further damage to the turtle and ensure the safety of those working nearby.

Economic and Social Impacts

This action is expected to have minimal economic and social impacts on fishing practices, costs, and revenues. Comments received during scoping workshops on the BO implementation indicate that many fishermen already spend time during gear haulbacks to handle and release turtles with care such that the requirement to use a dipnet to bring small turtles on board for disentanglement would not appreciably alter fishermen's behavior, although some time would likely be required to learn how to use the dipnet or line clipper. The dipnet and line clipper standards allow fishermen to fabricate the devices from materials they already have or can easily obtain (as opposed to requiring use of a specific device they would have to purchase), as long as they meet NMFS design and performance standards. The design specifications from the Hawaii pelagic longline fishery, from which the dipnet and line clipper standards were taken, were estimated to cost approximately $250 for both devices (65 FR 16346, March 28, 2000). The affected permit holders should already possess this equipment because it was required by the emergency rule. To the extent that use of dipnets will require more time during gear haulbacks

to bring turtles on board, fishing costs may increase. However, the time required to bring small turtles on board and any resulting increases in fishing costs are expected to be minimal.

Conclusion

This action is selected because of the need to reduce post-release mortality of incidentally captured sea turtles, the ability of dipnets and line clippers to facilitate gear removal and reduce serious injury and/or mortality due to trailing gear, and the minimal gear costs and processing time.

Final Action: Removal of the term "high-flyer" from the list of components constituting pelagic longline gear

Removing high-flyers from the definition of pelagic longline gear will prevent vessels from utilizing modified longline gear to target tunas, swordfish and sharks in closed areas, which would undermine the conservation objectives of the time and area closures.

Ecological Impacts

This action will have no measurable impact on the environment. It is a preventative action designed to maintain the effectiveness of the time and area closures implemented on August 1, 2000 (65 FR 47214). The environmental impacts associated with the area closures were previously considered and are discussed in detail in the HMS FMP and Final Supplemental Environmental Impact Statement issued for the August 1, 2000, final rule.

Economic and Social Impacts

Modifying the pelagic longline definition will have no measurable economic or social impact on the pelagic longline fishery. The change in definition serves to clarify the intent of NMFS in implementing the time and area closures. The economic and social impacts associated with the area closures were previously considered and are discussed in detail in the HMS FMP and Final Supplemental Environmental Impact Statement issued for the August 1, 2000, final rule.

Conclusion

This action is selected because of the need to effectively enforce the conservation goals of the time and area closures. Modifying the pelagic longline definition prevents operators of vessels from using the remainder of the defined components of pelagic longline gear to target tunas, swordfish and sharks in the closed areas.

Not Selected at this Time: Status quo

This alternative would maintain the current emergency rule regulations requiring the possession and use of dipnets and line clippers and closing a portion of the Grand Banks through April 9,

2001, at which time they will expire. It would also maintain the high-flyer component of the pelagic longline definition.

Ecological Impacts

When the emergency rule expires on April 9, 2001, pelagic longline fishermen would no longer be required to utilize dipnets and line clippers to assist in the removal of entangling fishing gear from captured sea turtles. Without the use of this gear, serious injury and mortality of sea turtles would likely increase. If the definition of pelagic longline included high-flyers, a vessel operator could remove that component and use the remainder of the gear to fish in closed areas. This action would undermine the conservation objectives of the time and area closures.

Economic and Social Impacts

The status quo alternative would not change the current fishing practices, costs or revenues of the Atlantic pelagic longline fishery, although fishermen would no longer have to use dipnets and line clippers once the emergency rule regulations expire. This alternative would have the least amount of economic and social impacts in the short-term, although the medium- to long-term impacts may be more severe if threatened and endangered sea turtle populations decline, requiring more restrictive measures in the future.

Conclusion

This alternative is rejected because it is not consistent with National Standard 9, which mandates the minimization of bycatch and bycatch mortality to the extent practicable.

Not Selected at this Time: Require pelagic longline vessels to carry on board and use dehooking devices

This alternative would require all pelagic longline vessels that hold federal HMS permits to carry on board at all times and use dehooking devices to remove hooks that are clearly visible externally or in the mouth or beak. If appropriate design specifications were available, this alternative would likely reduce serious injury or mortality of incidentally captured sea turtles by reducing the number of hooks that remain embedded in sea turtles after release.

Ecological Impacts

This alternative would likely reduce serious injury and/or mortality of incidentally captured sea turtles by allowing removal of a higher percentage of externally visible or mouth/beak hooks than currently occurs. To the extent that external or mouth/beak hooks contribute to post-release mortality, this alternative would contribute to sea turtle recovery unless further damage is done to the turtle during the dehooking process. This alternative would not require deeply embedded or ingested hooks to be removed due to concerns that more damage may be done to the turtle by removing the hook than by leaving it in place.

Economic and Social Impacts

This alternative would impose minimal economic and social costs in sea turtle handling and release costs because dipnets and line clippers must be carried on board and used already. This alternative would require some additional time during gear haulbacks to ensure externally visible or mouth/beak hooks were removed. The costs associated with this alternative would depend on whether a specific dehooking device would be required or, as with the dipnets and line clippers, design specifications would be established that allow fishermen to develop their own device. As stated in the HMS FMP, most dehooking devices designed to release large fish cost between $45 and $90, which is considered a relatively minor, one-time expense.

Conclusion

This alternative is not selected at this time due to the lack of appropriate design specifications that allow safe removal of externally visible or mouth/beak hooks. Further research needs to be conducted on gear configurations that could be easily handled and learned by fishermen and that would do no further damage to hooked turtles. NMFS intends to work with the pelagic longline industry in the near future to conduct testing of gear configurations, including use of dehooking devices, to assess their effectiveness on reducing sea turtle post-release mortality.

Not Selected at this Time: Require use of corrodible hooks on all pelagic longline gear

This alternative would require all pelagic longlines on vessels that hold federal HMS permits to be rigged with corrodible hooks only. The use or possession of non-corrodible hooks would be prohibited if pelagic longline gear is on board. This alternative was identified in the June 30, 2000, BO as a method to reduce serious injury and mortality of incidentally captured sea turtles.

Ecological Impacts

This alternative may increase the potential survival of released sea turtles by reducing the length of time any ingested or deeply lodged hooks would remain embedded in the turtle after its release. Depending on how quickly corrodible hooks dissolve, this alternative may reduce the serious injury and/or mortality of hooked sea turtles. Currently, it is not know whether corrodible hooks have a negative effect on catch rates of target species. If target catches are substantially reduced, fishermen may offset that reduction in ways that may either negate any decrease or actually increase sea turtle interactions (i.e. extend the length of the mainline, increase soak time, fish more total hooks per set, increase the number of lightsticks per set).

Economic and Social Impacts

Depending on how "corrodible" is defined, this alternative could result in increased costs and decreased revenues for pelagic longline vessel owners, captains, and crew. If corrodible is defined as non-stainless steel, then the increased costs and decreased revenues may be minimal because many pelagic longline vessels are currently rigged with non-stainless hooks already. Those vessels that are currently rigged with stainless hooks would have increased direct costs of

replacement hooks and crew time to re-rig the gear. As corrodible hooks would deteriorate more quickly than stainless hooks, those vessels would also have continued replacement hook and re-rigging costs.

However, if corrodible is defined as a specific hook type, hook coating, or alloy content, then economic and social impacts could be more substantial. Economic cost increases could range from high initial hook replacement and re-rigging costs for all pelagic longline vessels to long-term increased hook replacement costs if the corrodible hooks are more expensive to manufacture and would need to be replaced more frequently due to their higher corrodibility. Revenues could decrease if the corrodible hooks are not commercially available so that fishermen could not fish until new hooks were manufactured or if target catches decrease if corrodible hooks cannot retain swordfish or tuna as well as currently used hook types.

Conclusion

This alternative is not selected at this time due to the uncertainty regarding the definition of "corrodibility" and its enforceability, its effectiveness in reducing sea turtle post-release mortality, and its impact on target catches. NMFS received comments during scoping workshops on implementation of the June 30, 2000, BO that gear requirements may be supported by the pelagic longline industry and may be preferable to other alternatives such as time and area closures. While NMFS continues to consider gear modifications as potential methods to reduce sea turtle interactions, further testing of such requirements is necessary to determine their effectiveness. NMFS intends to work with the pelagic longline industry in the near future to conduct testing of gear modifications, including use of corrodible hooks, to assess their impacts on sea turtle bycatch and target catches. Experiments are currently underway with the goal of examining the effects of changes to fishing behavior and gear designs.

Not Selected at this Time: Require use of circle hooks on all pelagic longline gear

This alternative would require that all pelagic longlines on vessels that hold Federal HMS permits be rigged with circle hooks. The use or possession of straight shank or "J" hooks would be prohibited if pelagic longline gear is on board. This alternative was discussed in detail in Section 7 of the FSEIS and was not selected at that time due to uncertainty regarding the effectiveness of reducing sea turtle bycatch and impacts on target catches (NMFS received comments from fishermen during scoping workshops that the use of circle hooks may reduce the amount of swordfish caught by twenty percent), and concerns that the measure would be difficult to enforce.

Ecological Impacts

This measure might increase the survival of finfish bycatch, sea turtles, and target catch because circle hooks are less likely to be ingested than "J"-hooks (Falterman and Graves, 1999); therefore serious ingestion injuries are likely to occur less frequently. This alternative has the potential to increase survival of pelagic longline bycatch and have a positive impact on the populations of bycatch species. The success of this measure, however, would likely vary by

species. For example, some fishes, such as lancetfish and wahoo, experienced 100 percent mortality when retrieved from a pelagic longline, regardless of hook type (Falterman and Graves, 1999). If circle hooks are not strong enough to hold large fish such as bluefin tuna or sharks, there may be beneficial effects if the hook bends and the fish is released before it dies on the line.

Economic and Social Impacts

One supplier of fishing hooks has indicated the following approximate per-hook costs: $0.25 for circle hooks and $0.79 for "J" hooks. Therefore, the most conservative estimated cost for the entire Atlantic and Gulf longline fleet to refit their longlines with circle hooks (assuming no longline fishermen use circle hooks now) would be $1.9 million (7.7 million hooks @ $0.25/hook, based on logbook estimates) plus the labor costs of refitting the hooks. The circle hook cost divided by 210 vessels (reported operating in the fishery during 1998 in logbooks, Cramer and Adams, 2000) would average $9,121 per vessel. This is a high estimate on one hand because many tuna longline fishermen already use circle hooks. However, this is an estimate based on the number of hooks used in the fishery in 1998 (Cramer and Adams, 2000) and does not cover the additional hooks that are kept on board for replacements. This would affect the portion of the pelagic longline fleet that does not already use circle hooks (i.e., those fishermen who do not report making sets that target yellowfin tuna). Fishermen could replace the hooks gradually and reduce their individual expenditures if the regulation had a delayed effective date. There is also the unquantifiable opportunity costs of possible lost swordfish catches.

This measure would not be likely to have significant social impacts on fishing communities. If fishermen have to make more sets or longer sets in order to maintain current landings of target finfish, this measure could have safety implications due to fatigue or reduced time set aside for maintenance of vessels. However, this measure is not expected to have significant safety concerns. This measure, if effective at increasing the survival of released fish and some species of turtles, could have positive social benefits as other more costly measures could be avoided to protect overfished species. If this measure changes the composition of the catch by decreasing the amount of target catch retained per set, the fishermen could experience a decrease in gross revenues which would likely have a negative social impact.

Conclusion

This alternative is not selected at this time due to the uncertainty of its effectiveness in reducing sea turtle interactions (bycatch and post-release mortality) and its impact on target catches. If target catches are substantially reduced, fishermen may offset that reduction in ways that may either negate any decrease or actually increase sea turtle interactions (e.g. by extending the length of the mainline, increasing soak time, fishing more total hooks per set, increasing the number of lightsticks per set).

NMFS received comments during scoping workshops on implementation of the June 30, 2000, BO that gear requirements may be supported by the pelagic longline industry and may be preferable to other alternatives such as time and area closures. While NMFS continues to

consider gear modifications as potential methods to reduce sea turtle interactions, further testing of such modifications is necessary to determine their effectiveness. NMFS hopes to work with the pelagic longline industry in the near future to conduct testing of gear modifications, including use of circle hooks, to assess their impacts on sea turtle bycatch and target catches.

2.2 Shark Drift Gillnet Fishery / Observer Coverage

Final Action: Reduce the required level of observer coverage in the Atlantic shark drift gillnet fishery to 53 percent outside the right whale calving season

All vessels issued Federal Atlantic shark limited access permits and that fish for Atlantic sharks with a gillnet have modified observer coverage requirements so that 100 percent is required only during the right whale calving season, and a statistically significant level, which is 53% at this time, is maintained the rest of the year.

Ecological Impacts

This action will have no direct ecological impacts. During the right whale calving season, observer coverage is maintained at 100 percent to monitor target catch, bycatch of protected species, and effort in the fishery. This provision maintains compliance with the Biological Opinion issued under Section 7 of the Endangered Species Act for this fishery. Observer coverage is being maintained at a statistically significant level during the rest of the fishing season to monitor target catches, bycatch of sea turtles and finfish, and effort.

Economic and Social Impacts

This action will decrease the economic and social impacts for both the agency and the participants in the fishery. By implementing a reduced level of observer coverage, NMFS will reduce administrative and enforcement costs. The participants in the shark drift gillnet fishery will have reduced costs by potentially gaining storage space on their vessel, being able to add a crew member to increasing fishing capacity, and/or by not having to provide food for the observer during trips that are not covered.

Conclusion

This action is selected because of the benefits to both the agency and the fishery participants while maintaining sufficient observer coverage to meet the requirements of the Endangered Species Act and the Magnuson-Stevens Act.

Not Selected at this Time: Status quo

This alternative would maintain the 100 percent observer coverage requirement for the Atlantic shark drift gillnet fishery.

Ecological Impacts

This action does not have any direct ecological impacts. By having high levels of observer coverage, the bycatch levels of marine mammals, sea turtles, and finfish can be more accurately quantified. Also, more data can be collected regarding catch and effort levels in the Atlantic shark drift gillnet fishery.

Economic and Social Impacts

This alternative would maintain the existing enforcement and administrative costs of managing the fishery. Observer coverage costs approximately $1200 per trip in this fishery (Carlson, J. NMFS, pers. comm.). This expenditure supports collection of data to determine catch and effort levels and to minimize bycatch and bycatch mortality to the extent practicable. However, the requirement to carry an observer, may decrease the fishing capacity and storage space available to fishermen in the shark drift gillnet fishery and would maintain the cost of providing food for the observer.

Conclusion

This alternative is not selected at this time based on recent analysis which determined that 53 percent observer coverage is sufficient. Thus, maintaining the status quo level of coverage will impose unnecessary costs on both NMFS and the participants in the fishery.

8.0 REGULATORY IMPACT REVIEW

The regulatory impact review (RIR) provides analyses of the expected economic benefits and costs of each alternative to the nation and the fishery as a whole. This section assesses the impacts of the alternatives presented in this document. Certain elements required in an RIR are also required as part of an environmental assessment (EA). Thus, this section should only be considered a portion of the RIR. The rest of the RIR can be found in other sections of this document. Section 1 of this document describes the need for action and the objectives of the regulations. The alternatives considered are described in Section 7. For analysis of the definitional change to pelagic longline gear, refer to the Final Supplemental Environmental Impact Statement issued for the August 1, 2000, final rule.

8.1 Analyses of Measures to Reduce Post-Release Mortality of Incidentally Captured Sea Turtles in the Pelagic Longline Fishery

Requiring the use of dipnets and line clippers to release hooked turtles is not expected to cause substantial economic impact to Atlantic pelagic longliners. A similar rule for the fisheries in the Western Pacific estimated the total cost for the materials to fabricate or purchase dipnets and line clippers to be $250 per vessel (65 FR 16347). Use of dipnets and line clippers to release sea turtles is unlikely to change catch rates of target catch; therefore, this management measure is unlikely to change the gross revenues of fishermen. Because these gear requirements were required by the emergency rule implemented on October 10, 2000, the majority if not all of the 443 permitted pelagic longline vessels should already be equipped with dipnets and line clippers that meet NMFS design specifications. Thus, it is projected that the individual costs associated with this rule will be minimal.

While specific line clipper devices are not available in the commercial market, line clippers meeting the minimum design standards of this interim final rule may be fashioned from readily available tools and components. One model is an extended reach garden pruning tool, which may be adapted to meet the minimum prescribed standards. Another model, which may be easily fabricated is the Arceneaux Line Clipper shown in Appendix 1. Consequently, line clippers may be fabricated or obtained and put into use in the fishery with little expense or delay.

Similarly, requiring a dehooking device is unlikely to increase costs or change gross revenues substantially. The HMS FMP and a recent search on the Internet indicate that dehooking devices for this fishery cost between $45 and $90. Currently, there does not exist an approved protocol instructing fishermen how to remove ingested hooks from sea turtles.

Requiring the use of circle or corrodible hooks could increase the cost of fishing. While circle hooks cost less than “J” hooks ($0.25 versus $0.79, respectively), this requirement would force fishermen to replace all of their hooks immediately instead of over time. Thus, this requirement could increase costs in the short-term. The FSEIS estimates that replacing “J” hooks with circle hooks could cost each vessel $9,121 on average. While the cost of a corrodible hook is unknown due to lack of developed standards, NMFS expects that this requirement would have similar costs in the short-term. Additionally, corrodible hooks may need to be replaced more often than

either “J” hooks or circle hooks, further increasing the costs to fishermen over time. However, to the extent that some fishermen already use corrodible hooks (non-stainless steel hooks), this alternative may not change the cost of fishing (depending on the definition of a corrodible hook). Fishermen may also be impacted by a decreased catch rate caused by circle or corrodible hooks. At the moment, NMFS is unable to estimate changes in catch rates, but if circle hooks or corrodible hooks are not strong enough to hold a large swordfish or tuna, gross revenues may decrease. In addition to impacting fishermen, requiring circle or corrodible hooks could have a large impact on suppliers who may have already stocked up on “J” hooks and may be unable to sell their supply.

8.2 Analysis of the Impact of Modifying the Level of Observer Coverage in the Atlantic Drift Gillnet Fishery

The removal of the requirement for full observer coverage in the shark drift gillnet fishery is based on recent scientific analysis that indicates that a 53 percent coverage rate is adequate to provide reasonable estimates of sea turtle and marine mammal takes in this fishery. Reduced observer coverage will apply to all vessels issued Federal Atlantic shark limited access permits and that fish for Atlantic sharks with gillnets. This change will not cause a disproportionate impact or limit the profitability of the effected entities. The regulation will reduce the burden to the industry and result in reductions in industry costs associated with carrying observers on vessels in this fishery (i.e. increased storage space, increased fishing capacity, decreased food expenses).

8.3 Conclusion

The final actions described in this EA have been determined to not be significant for the purposes of E.O. 12866. The dipnet and line clipper alternative adds a one time increase to fishing costs. Reducing the level of observer coverage provides economic benefits to both NMFS and the participants in the fishery. A summary of the expected economic benefits and costs of each alternative is set forth in Table 8.1.

Table 8.1 Summary of net economic benefits and costs for each alternative considered

Management Measure	Net Economic Benefits	Net Economic Costs
Require dipnets and line clippers **FINAL ACTION**	Minimal.	Minimal.
Require dehooking device	Minimal.	Minimal.
Status quo	No change.	No change.
Require corrodible hooks	Minimal.	If fishermen are not already using corrodible hooks, would require replacement of all hooks. In long-term, could require hooks to be replaced more often than stainless steel hooks. If hooks are not strong enough to hold target fish, could result in a loss in revenues.
Require circle hooks	In long term, circle hooks cost less to replace than "J" hooks.	Would require immediate replacement of all hooks. If hooks are not strong enough to hold target fish, could result in a loss in revenues.
Reduce observer coverage **FINAL ACTION**	Reduce cost to NMFS and fishery participants.	Minimal.
Status quo	No change.	No change.

9.0 COMMUNITY PROFILES

The National Environmental Policy Act (NEPA) requires federal agencies to consider the interactions of natural and human environments by using "a systematic, interdisciplinary approach which will ensure the integrated use of the natural and social sciences ... in planning and decision-making" (NEPA §102(2)(a)). The Magnuson-Stevens Act also requires consideration of social impacts. Federal agencies should address the aesthetic, historic, cultural, economic, social, or health effects which may be direct, indirect, or cumulative. Consideration of the social impacts associated with fishery management measures is a growing concern as fisheries experience variable participation and/or declines in stocks.

Social impacts are the consequences to human populations that follow from some type of public or private action. Those consequences may include changes in "the ways in which people live, work or play, relate to one another, organize to meet their needs and generally cope as members of a society ... " (Interorganizational Committee on Guidelines and Principles for Social Impact Assessment, 1994:1). In addition, cultural impacts may involve changes in the values and beliefs that affect the way that people identify themselves within their occupation, their communities, and society in general. Social impact analyses help determine the consequences of policy action in advance by comparing the status quo with the projected impacts. Public hearings, scoping meetings, and Advisory Panel meetings provide input from those concerned with the impacts of a management action.

The following towns were considered for in-depth analysis during the emergency rule drafting process: New Bedford, MA; Barnegat Light, NJ; Wanchese, NC; Pompano Beach, FL; and Dulac, LA. These towns were selected due to the importance of the pelagic longline fishing industry, particularly swordfish and tuna, to the community. Information concerning these locations is presented in detail in chapter 9 of the HMS FMP and is not repeated here. Vessels in the Atlantic shark drift gillnet fishery operate from several ports in the southeastern United States, including Fort Pierce, West Palm Beach, and Port Salerno in Florida. Due to the small size of the Atlantic shark drift gillnet fishery, it is currently not possible to assess the community profile for this fleet.

Summary

Based on the current information available to NMFS, the interim final rule is not expected to have a substantial social impact on the communities examined. The low cost of the gear is not expected to pose a significant economic burden on the individual vessels. Moreover, all HMS vessels with pelagic longline gear on board were required to possess and use the dipnets and line clippers as of November 24, 2000, to comply with the emergency rule that was published on October 13, 2000. Because of this, the only impact will be on vessels that have not yet complied with the emergency rule.

10.0 FINDING OF NO SIGNIFICANT ENVIRONMENTAL IMPACT

Environmental Assessment and Regulatory Impact Review for an Interim Final Rule Requiring Vessels in the Atlantic Pelagic Longline Fishery to Possess and Use Dipnet and Line Clippers and Modifying the Level of Observer Coverage in the Atlantic Shark Drift Gillnet Fishery

Based on a review of this EA, RIR, and the available information relative to the interim final rule, NMFS has determined that there would be no significant environmental impacts from this action. This rule is expected to result in a reduction of overall sea turtle mortality associated with Atlantic pelagic longline fisheries. NMFS intends to complete Endangered Species Act Section 7 consultation in March 2001, and will thereafter implement any necessary reasonable and prudent alternatives. The appropriate level of observer coverage for the Atlantic shark drift gillnet fishery will continue to be evaluated and adjusted as necessary to maintain a statistically significant sampling regimen. Accordingly, preparation of an Environmental Impact Statement for this action is not required by section 102(2)(c) of the National Environmental Policy Act or its implementing regulations.

_____ _____

Assistant Administrator for Fisheries, NOAA — Date

11.0 LIST OF PREPARERS

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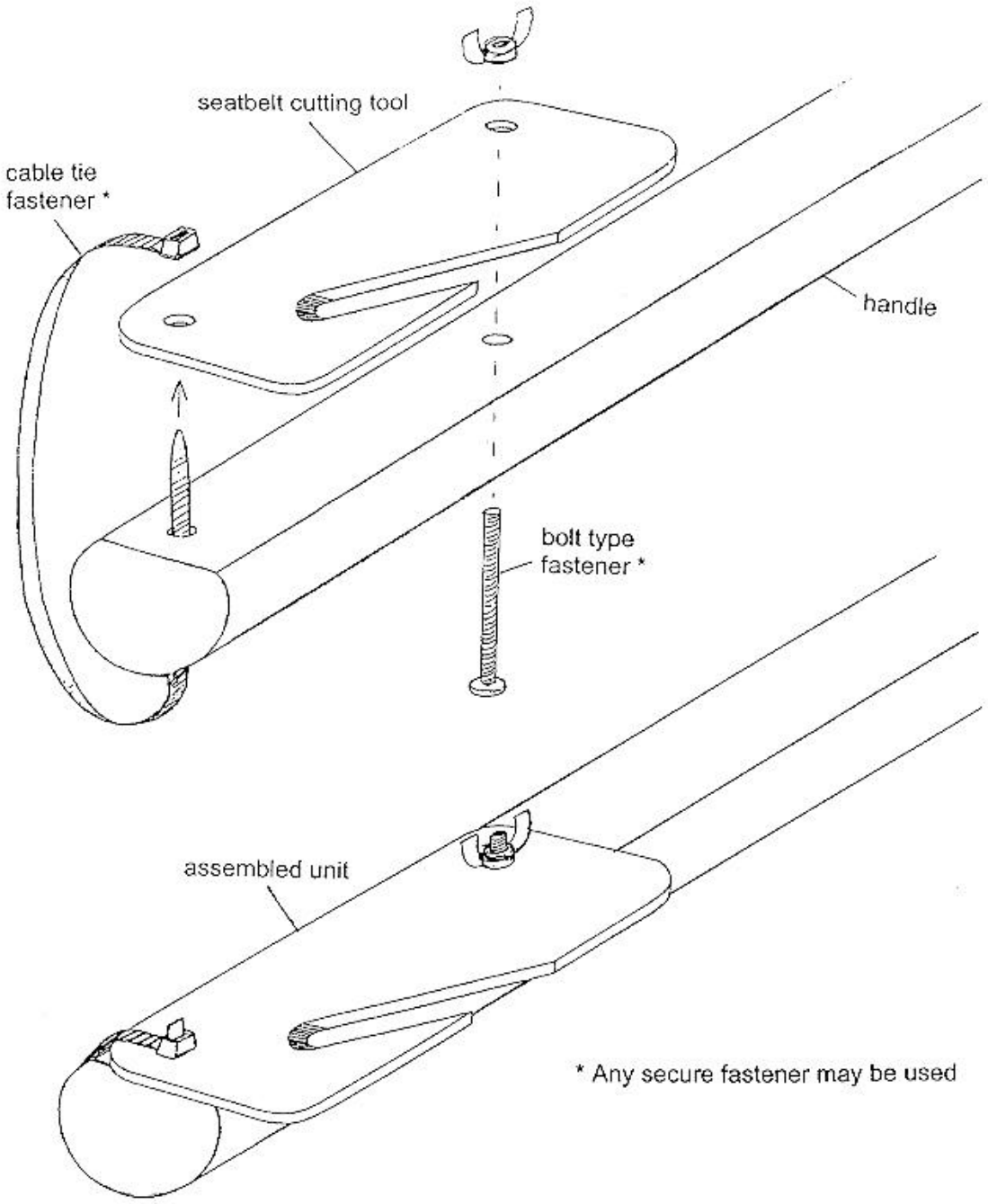
APPENDIX ONE EXAMPLE OF LINE CLIPPER DESIGN



Sample Fabricated Arceneaux Line Clipper from 65 FR 16349, March 28, 2000.