DRAFT

ENVIRONMENTAL ASSESSMENT,

INITIAL REGULATORY FLEXIBILITY ANALYSIS,

AND

REGULATORY IMPACT REVIEW

FOR A

PROPOSED RULE

TO IMPLEMENT ATLANTIC SWORDFISH QUOTA RECOMMENDATIONS FROM THE 2002 MEETING OF THE INTERNATIONAL COMMISSION FOR THE CONSERVATION OF ATLANTIC TUNAS

June 2003

United States Department of Commerce
National Oceanic and Atmospheric Administration
National Marine Fisheries Service
Office of Sustainable Fisheries
Highly Migratory Species Management Division
1315 East-West Highway
Silver Spring, Maryland 20910

Proposed Rule to Implement Atlantic Swordfish Recommendations from the 2002 Meeting of the International Commission for the Conservation of Atlantic Tunas

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

Proposed Actions: Consistent with ICCAT recommendations, establish annual quotas for North and South Atlantic swordfish, implement a dead discard allowance for the 2003 fishing year and beyond, allow 200 mt ww of North Atlantic swordfish quota to be taken in the area between 5 degrees North latitude and 5 degrees South latitude, and transfer 25 mt ww of North Atlantic swordfish to Canada.

Type of Statement: Proposed Rule Documents: Environmental Assessment, Initial Regulatory Flexibility Analysis, and Regulatory Impact Review

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Abstract: The United States is obligated under the Atlantic Tunas Convention Act (ATCA) to implement conservation and management recommendations that have been adopted by the International Commission for the Conservation of Atlantic Tunas (ICCAT). These proposed regulations would establish the annual quotas and other measures for North Atlantic swordfish starting with the 2003 fishing year, allow up to 200 metric tons (mt) whole weight (ww) to be harvested from the area between 5 degrees North and 5 degrees South latitude, establish a dead discard allowance of 80 mt ww, transfer 25 mt ww to Canada, and establish the annual South Atlantic swordfish quota starting with the 2003 fishing year. These actions are necessary to ensure continued progress toward the conservation goals of ICCAT for Atlantic Highly Migratory Species (HMS). Short-term economic impacts resulting from these actions are not expected to be significant.

FINDING OF NO SIGNIFICANT ENVIRONMENTAL IMPACT

The HMS Management Division of the Office of Sustainable Fisheries submits the attached Environmental Assessment (EA) for the implementation of the Atlantic swordfish quota recommendations from the 2002 meeting of ICCAT for Secretarial review under the procedures of the Magnuson-Stevens Fishery Conservation and Management Act. This EA was developed as an integrated document that includes an Initial Regulatory Flexibility Analysis (IRFA) and a Regulatory Impact Review (RIR). Copies of the proposed rule and the EA, IRFA, RIR are available from NOAA Fisheries at the following address:

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The proposed action would:

- Adjust the annual North Atlantic swordfish quota,
- Adjust the North Atlantic swordfish dead discard allowance for 2003 and beyond,
- Allow up to 200 mt of swordfish harvest between 5 degrees North and 5 degrees South to be deducted from the North Atlantic swordfish quota,
- Transfer 25 mt of North Atlantic swordfish to Canada in 2003, 2004, and 2005, and
- Adjust the annual South Atlantic swordfish quota.

Having reviewed the EA, I have determined that this action would not have a significant impact on the quality of the human environment, thus preparation of an environmental impact statement on the action is not required by Section 102(2)(c) of the National Environmental Policy Act or its implementing regulations.

Approved: DRAFT _____
William T. Hogarth, Ph.D. Date
Assistant Administrator for Fisheries

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1.0 PURPOSE AND NEED FOR ACTION

1.1 Management History

The United States fishery for North and South Atlantic swordfish is managed by the National Marine Fisheries Service (NOAA Fisheries) under the authority of the Magnuson-Stevens Fisheries Conservation and Management Act (Magnuson-Stevens Act) and the Atlantic Tunas Convention Act (ATCA). The U.S. is obligated under the ATCA to implement ICCAT-approved recommendations. The measures proposed in this rulemaking were recommended at the 13th Special Meeting of ICCAT held in Bilbao, Spain during the fall of 2002.

The 1985 Fishery Management Plan (FMP) for Atlantic swordfish found that the fishery was in or near a state of overfishing. The 1985 FMP implemented a number of management measures to reduce and/or prevent further overfishing. Starting in 1990, ICCAT began to implement management measures to reduce the fishing mortality of swordfish in the Atlantic Ocean. Additionally, in 1994, ICCAT implemented country specific fishing quotas for North Atlantic swordfish to improve the monitoring of these efforts. In 1997, ICCAT recommended that contracting parties reduce their catch of North Atlantic swordfish in 1998 and 1999 by 45 percent from their 1996 levels.

In 1999, NOAA Fisheries published the Fishery Management Plan for Atlantic Tunas, Swordfish and Sharks (HMS FMP). One of the final actions in the HMS FMP was to establish the foundation for developing an international rebuilding program for North Atlantic swordfish. Also established were the foundation to count dead discards against the swordfish quota and the current U.S. quota management structure of directed and incidental categories. Later that year, ICCAT adopted a recommendation to establish an international rebuilding program for North Atlantic swordfish and to reduce the total allowable catch (TAC) for all countries fishing on that stock. This recommendation also implemented a dead discard allowance to better account for that source of mortality.

Recently, the 2002 stock assessment found that the North Atlantic swordfish stock was almost fully recovered. Based on this information, the Standing Committee on Research and Statistics (SCRS) advised that the TAC could be increased to allow for increased harvest by participating countries and still recover the species to maximum sustainable yield (MSY) by 2009. ICCAT recommended that the North Atlantic swordfish TAC be increased over the next few years. This document proposes implementing the 2002 North Atlantic swordfish recommendations from ICCAT.

Regarding the history of South Atlantic swordfish management, ICCAT previously recommended that countries maintain their current catch levels. ICCAT also established an allocation scheme that accounted for all the participating contracting parties. Given the current uncertainties present in the South Atlantic swordfish data, the SCRS could not estimate the MSY for the stock. Based on this information, ICCAT recommended a small increase in the South

Atlantic swordfish TAC. The implementation of the resulting ICCAT 2002 South Atlantic swordfish recommendations is being proposed in this document.

In addition to ICCAT recommendations, swordfish management measures must be consistent with the Magnuson-Stevens Act, the Endangered Species Act (ESA), and other domestic laws. Under the Magnuson-Stevens Act and the ESA, management measures need to minimize the bycatch of juvenile fish, billfish, and protected species. To this end, NOAA Fisheries has implemented regulations that address bycatch issues in recent years. On August 1, 2000, a final rule was published (65 FR 47214) that closed areas in the Gulf of Mexico and off the East Coast to pelagic longline fishing in an effort to reduce the catch of juvenile swordfish, billfish, and other species. Biological Opinions (BiOps), issued on June 30, 2000, and June 14, 2001, found that the pelagic longline fishery was jeopardizing the continued existence of loggerhead and leatherback sea turtles in the Atlantic Ocean. NOAA Fisheries implemented the measures required in the BiOps via emergency rules (October 13, 2000, 65 FR 60889; July 13, 2001, 66 FR 36711; and December 13, 2001, 66 FR 64378) and finalized the required measures on July 9, 2002 (67 FR 45393). The final rule closed the northeast distant statistical reporting area, modified how pelagic longline gear is set, required corrodible hooks, required the reporting of dead sea turtles, and required the posting of sea turtle handling and release guidelines. The impact of these bycatch measures has been to close large areas in the Atlantic Ocean and Gulf of Mexico to pelagic longline fishing. These closures along with other restrictions such as limited access and a prohibition on drift gillnets has significantly reduced the size of the fleet actively fishing for swordfish. More information on the fishery is located in Section 3.

1.2 Need for Action and Objectives

The purpose of this framework action is to implement the 2002 ICCAT recommendations regarding North and South Atlantic swordfish consistent with the HMS FMP, the Magnuson-Stevens Act, and other domestic regulations. In this EA/RIR/IRFA, NOAA Fisheries considers the biological, social, and economic impacts of implementing the 2002 ICCAT recommendations for North and South Atlantic swordfish based on reviews of landings, logbook, and observer data. The preferred alternatives are identified for which NOAA Fisheries is publishing proposed regulations, in accordance with the National Environmental Policy Act and other applicable laws. These alternatives are preferred due to their consistency with the objectives of the HMS FMP, the Magnuson-Stevens Act, and the 2002 ICCAT recommendations for North Atlantic swordfish rebuilding and South Atlantic swordfish management.

1.3 Other Concerns

In examining the current quota levels in the swordfish fishery, and the levels proposed in this rulemaking, NOAA Fisheries is concerned about the levels of underharvest that exist. NOAA Fisheries is soliciting comments concerning the current quota allocation structure (directed, incidental, and reserve categories), the amounts of quota available to each category (300 mt dw to the incidental category and the remainder to the directed category), how to use the reserve category, and the catch limits for the incidental permit holders (2 swordfish per trip or 5

swordfish per trip for squid trawlers). NOAA Fisheries is not proposing a rule at this time to amend these measures. If, after receiving comments, NOAA Fisheries decides to issue or amend regulations to implement these measures, the agency will publish a proposed rule.

2.0 SUMMARY OF THE ALTERNATIVES

This section provides a summary and basis for all the alternatives considered in this rulemaking. The preferred measures proposed in this rulemaking are recommendations from the 2002 ICCAT meeting. Under ATCA and the Magnuson-Stevens Act, NOAA Fisheries is required to implement ICCAT recommendations to manage U.S. fisheries. Maintaining compliance with the ICCAT management measures and implementing alternatives that reflect the best available science serves as the bases for alternatives A1, B1, C1, D1, and E1. The other alternatives address the impacts if the ICCAT recommendations are not implemented.

2.1 North Atlantic Swordfish Quota Levels

Preferred Alternative

Alternative A1: *Adjust the Annual North Atlantic Swordfish Quota*

This alternative would set the United States North Atlantic swordfish quota at 3,877 mt ww (2,915.1 mt dw) for the 2003 fishing year and at 3,907 mt ww (2,937.7 mt dw) for the 2004 and 2005 fishing years. The 2002 stock assessment estimated that the biomass of swordfish was approximately 94% of the biomass needed to produce maximum sustainable yield (MSY). Increasing the TAC to 14,000 mt ww would provide a greater than 50% chance that the stock would rebuild to MSY by the end of 2009. Based on this assessment, ICCAT increased the TAC to 14,000 mt ww and allocated 30.49% of it to the United States.

Not Selected at this Time

Alternative A2: *No Action*

This alternative would maintain the status quo quota arrangement and would not increase the United States North Atlantic swordfish quota contrary to the ICCAT recommendation. The current quota is based on the 1999 stock assessment that found that a previous decline in stock biomass had slowed. Based on these findings and the need to protect the high recruitment observed in 1997 and 1998, ICCAT set a TAC of 10,600 mt ww in 2000, 10,500 mt ww in 2001, and 10,400 mt ww in 2002. The United States allocation was 2,951 mt ww (2,219 mt dw) in 2002.

2.2 South Atlantic Swordfish Quota Levels

Preferred Alternative

Alternative B1: *Adjust the Annual South Atlantic Swordfish Quota*

This alternative would set the South Atlantic swordfish quota at 100 mt ww (72.2 mt dw) for the 2003 to 2005 fishing years and at 120 mt ww (90.2 mt dw) for the 2006 fishing year. The stock

assessment in 2002 could not produce reliable results. However, because catch rates had declined since a 1995 recommendation, ICCAT increased the TAC from 14,620 mt ww to 15,631 mt ww. The United States share decreased to allow other contracting parties to have access to the resource.

Not Selected at this Time

Alternative B2: *No Action*

This alternative would maintain the regulations which specify that the annual landings quota for the South Atlantic swordfish fishery is 384 mt ww (289 mt dw). This allocation was based on previous ICCAT recommendations.

2.3 2003 North Atlantic Swordfish Dead Discard Allowance

Preferred Alternative

Alternative C1: *Establish a 2003 dead discard allowance of 80 mt ww and 0 mt ww in 2004 and beyond*

This alternative would amend the swordfish regulations to create a dead discard allowance of 80 mt ww (60.2 mt dw) for the 2003 fishing year. ICCAT set aside 100 mt ww of the 14,000 mt ww TAC to account for dead discards. The United States is allocated 80 % of this amount. By 2004, the impacted fisheries are expected to have limited their amount of dead discards, so the allowance is reduced to zero.

Not Selected at this Time

Alternative C2: *No Action*

This alternative would maintain the status quo and there would not be a dead discard allowance for the 2003 fishing year. In previous years, the dead discard allowances were 400 mt ww, 300 mt ww, and 200 mt ww in 2000, 2001, and 2002, respectively, of which the United States received 80 %. These amounts were based on a 1999 ICCAT recommendation that did not specify an amount for 2003 and required that the dead discard allowance be phased out in 2004.

2.4 North Atlantic Swordfish Adjusted Catch Area

Preferred Alternative

Alternative D1: *Up to 200 mt ww of the U.S. North Atlantic swordfish quota may be harvested in the area between 5 degrees North and 5 degrees South latitude*

This alternative would modify the approved fishing areas to allow up to 200 mt ww (150.4 mt dw) of North Atlantic swordfish to be harvested from an area bounded by 5 degrees North latitude and 5 degrees South latitude. As the majority of the U.S. longline effort in the South Atlantic takes place between 5 degrees N. and 5 degrees S., this alternative serves to increase the amount of South Atlantic swordfish that can be potentially harvested by 200 mt ww.

Not Selected at this Time

Alternative D2: *No Action*

This alternative would maintain the status quo. Current NOAA Fisheries regulations state that swordfish harvested from south of 5 degrees North latitude are from the South Atlantic population. Maintaining the status quo would limit the South Atlantic swordfish fishery to a quota of 100 mt ww.

2.5 Transfer North Atlantic Swordfish Quota to Canada

Preferred Alternative

Alternative E1: *Transfer 25 mt ww of North Atlantic swordfish quota to Canada in 2003, 2004, and 2005*

This alternative would transfer 25 mt ww (18.8 mt dw) of North Atlantic swordfish quota each year to Canada from 2003 to 2005. NOAA Fisheries proposes to transfer the quota from the reserve quota category established in 2002 (November 20, 2002, 67 FR 70023). Currently, there is 185 mt ww (139.1 mt dw) in the reserve quota category.

Not Selected at this Time

Alternative E2: *No Action*

This alternative would maintain the status quo, which is no quota transfer.

3.0 DESCRIPTION OF AFFECTED ENVIRONMENT

Pelagic longline 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. Sometimes pelagic longline fishermen inadvertently catch protected species, which include sea turtles, marine mammals, or sea birds. All of these species are federally managed, and NOAA Fisheries seeks to control the mortality that results from fishing effort.

Detailed descriptions of the life histories and population status of the species managed by the HMS Division are given in the HMS FMP (NOAA Fisheries, 1999), and are not repeated here. Detailed information on catch and bycatch of HMS by fishery is also provided in the 2003 SAFE Report (NOAA Fisheries, 2003).

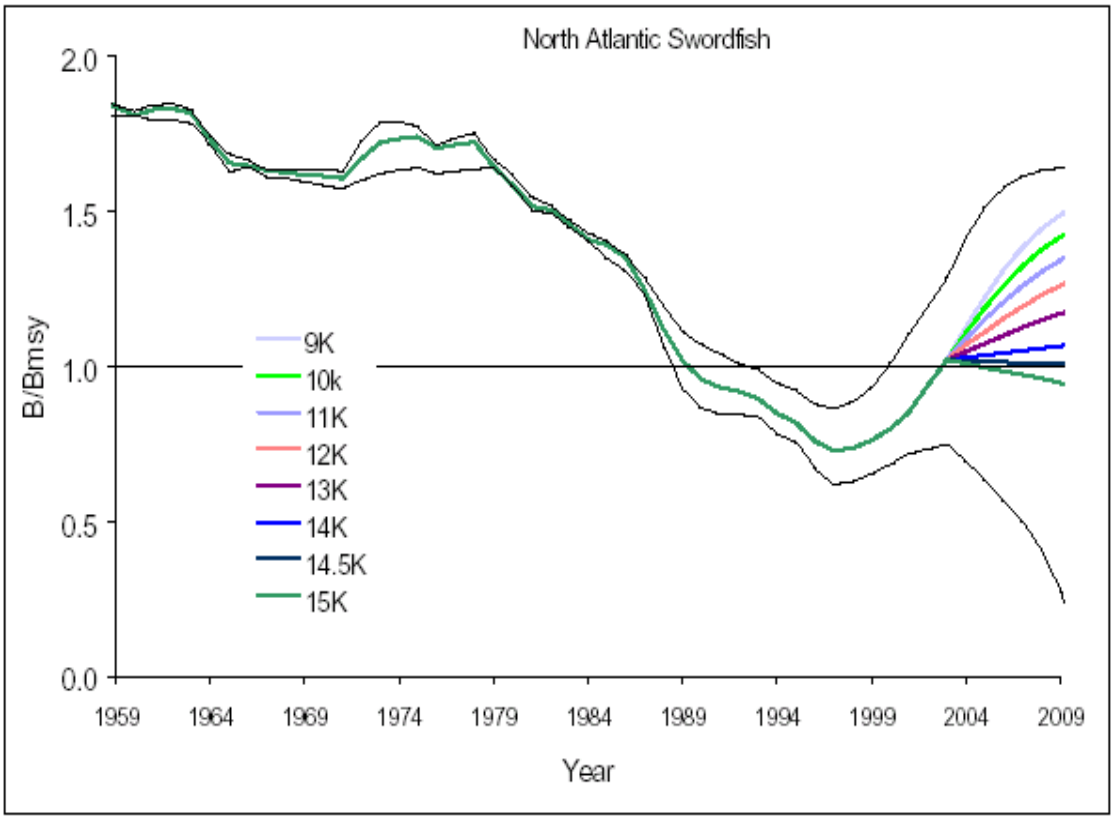
3.1 Status of the Stocks

North Atlantic Swordfish

North Atlantic swordfish are considered overfished. In 1999, assessments of the North Atlantic swordfish stock indicated that the decline in stock biomass had been slowed or arrested (SCRS, 1999). ICCAT noted positive signs from the fishery in terms of catch rates, and concluded that the observed high recruitment of age one fish in 1997 and 1998 should allow for increases in spawning stock biomass in the future, if these year classes are not heavily harvested. Prior to the 2002 meeting, ICCAT conducted another stock assessment examining North Atlantic swordfish. The SCRS concluded that the 2002 stock assessment indicated that the stock could support an increase in the TAC of North Atlantic swordfish. According to the stock assessment, the biomass at the start of 2002 was estimated to be 94% of the biomass needed to produce MSY. The SCRS felt that there was a greater that 50% chance that a TAC of 14,000 mt ww would allow the stock to rebuild to MSY by the end of 2009 (Figure 3.1). A new stock assessment for North Atlantic swordfish is scheduled for 2005.

South Atlantic Swordfish

South Atlantic swordfish are considered fully fished and overfishing may be occurring. The SCRS conducted a stock assessment of South Atlantic swordfish in 2002. Due to discrepancies between several of the datasets, reliable stock assessment results could not be produced. In general, the SCRS noted that the total catches have decreased since 1995 as recommended. Based on this information, significant changes in the management regime were not required. A new stock assessment for South Atlantic swordfish is scheduled for 2005.



1**Figure 3.1Estimated biomass relative to biomass at MSY (B/BMSY) for the period 1959-2002, followed by 7-year projected B/BMSY under the constant catch scenarios listed. (SCRS, 2002)**

Status of Non-Target Finfish

This rulemaking affects swordfish longline vessels predominantly. Wahoo, king mackerel, tuna, billfish, some species of sharks (some of which are overfished) and rays, and other finfish, are caught incidental to the swordfish longline operations in the Atlantic Ocean. The incidence of non-target finfish caught in the longline fishery and in other fisheries is discussed in the 2003 SAFE Report (NOAA Fisheries, 2003). Many of these species are marketed along with the target catch of swordfish and tunas, however, others are discarded for personal, economic, or regulatory reasons. Additional details on these non-target finfish can be found in the HMS FMP and the FSEIS (NOAA Fisheries, 1999 and NOAA Fisheries, 2002). The most recent longline bycatch data are available from the 2001 U.S. National Report to ICCAT and the 2003 SAFE Report (NOAA Fisheries, 2003).

3.2 Fishery Participants, Gear Types, and Affected Area

Additional information about the operation of U.S. HMS fisheries can be found in the 2003 SAFE Report (NOAA Fisheries, 2003).

International HMS Fisheries

Swordfish are harvested throughout the Atlantic Ocean in tuna and swordfish longline fisheries. Within the North Atlantic, major harvesting nations include Japan, Spain, the United States, Canada, and Portugal. The U.S. quota is 29 percent of the total North Atlantic quota established by ICCAT. Numerous other countries, both members and non-members of ICCAT, harvest lesser amounts of swordfish. In the South Atlantic, vessels fishing for swordfish are primarily from Brazil, Spain, Japan, and Uruguay. Vessels from the United States landed less than 2 percent of total South Atlantic landings in 1999. Japanese vessels catch swordfish incidental to tuna longline operations throughout the Atlantic Ocean.

At the 1997 ICCAT meeting, the TAC of South Atlantic swordfish was established at 14,620 mt ww per year, for 1998, 1999 and 2000. This recommendation is still in effect and includes the United States as a minor harvesting nation that shares in 5.5 percent of the total South Atlantic quota. The United States received 384 mt ww (289 mt dw) of the annual allocation for the three years covered by the ICCAT recommendation, based on "recent levels." The U.S. swordfish quotas are applied to a fishing year, beginning June 1 and ending May 31 of each calendar year.

In November 1999, ICCAT adopted a rebuilding program that accounts for dead discards as a source of mortality and reduces the TAC to a level that has a 50 percent probability of rebuilding the stock within 10 years. The rebuilding trajectory assumes that all ICCAT nations maintain their landings at or below quotas, and that those countries which do not have a specific quota do not exceed the quota set aside for "others" on a collective basis. In the past, total reported swordfish landings by all nations have exceeded the TAC by about 10 percent per year. In addition, there are countries and vessels that are fishing illegally, are unregulated, and are not reporting their harvests to ICCAT.

U.S. Pelagic Longline Fishery

The U.S. pelagic longline fishery for Atlantic HMS primarily targets swordfish, yellowfin tuna, or bigeye tuna in various areas and seasons. Secondary target species include dolphin; albacore tuna; pelagic sharks including mako, thresher, and porbeagle sharks; as well as several species of large coastal sharks. Although this gear can be modified (i.e., depth of set, hook type, etc.) to target swordfish, tunas, or sharks, it is generally a multi-species fishery. These vessel operators are opportunistic, switching gear style and making subtle changes to target the best available economic opportunity of each individual trip. Longline gear sometimes attracts and hooks non-target finfish with no commercial value, as well as species that cannot be retained by commercial fishermen due to regulations, such as billfish. Pelagic longlines may also interact with protected species such as marine mammals, sea turtles, and seabirds. Thus, this gear has been classified as a Category I fishery with respect to the Marine Mammal Protection Act. Any species (or undersized catch of permitted species) that cannot be landed due to fishery regulations is required to be released, whether dead or alive.

The U.S. Atlantic pelagic longline fishery is restricted by a limited swordfish quota, divided between the North and South Atlantic (separated at 5° N. lat.). Other regulations include minimum sizes for swordfish, yellowfin, bigeye, and bluefin tuna, limited access permitting,

bluefin tuna catch requirements, shark quotas, protected species incidental take limits, reporting requirements (including logbooks), and gear requirements. Current billfish regulations prohibit the retention of billfish by commercial vessels, or the sale of billfish from the Atlantic Ocean. As a result, all billfish hooked on longlines must be discarded, and are considered bycatch. This is a heavily managed gear type, and as such, is strictly monitored to avoid overharvest of the swordfish quota.

Pelagic longline fishermen and the dealers who purchase HMS from them are also subject to reporting requirements. NOAA Fisheries has extended dealer permitting and reporting requirements to all swordfish importers as well as dealers who buy domestic swordfish from the Atlantic. These data are used to evaluate the impacts of harvesting on the stock and the impacts of regulations on affected entities. In the past several years, the number of swordfish permits holders has been decreasing (see Table 1). This decrease in effort has a direct impact on takes of target species and incidentally caught species.

Table 3.1 Number of U.S. Swordfish Permitholders. NOAA Fisheries, 2003.

Year	Directed Swordfish	Incidental Swordfish	Handgear Swordfish	Total
December 1999	243	208	114	565
October 2000	240	203	125	568
October 2001	208	112	100	420
October 2002	205	110	94	409

Additional information on management of U.S. HMS fisheries can be found in the HMS FMP (NOAA Fisheries, 1999) and 2003 SAFE Report (NOAA Fisheries, 2003).

Other U.S. Fisheries for Atlantic Swordfish, Bigeye Tuna, and Albacore

Minor U.S. commercial swordfish landings are made by otter trawl vessels fishing for squid, mackerel and butterfish (primary prey species sought by swordfish) and harpoon, rod and reel, and handline (hand gear). Minor commercial landings of bigeye and albacore tuna are made by rod and reel and handline. Albacore are also caught in coastal gillnet fisheries.

Recreational fishermen pursue each of these species, predominantly using rod and reel. Their landings are estimated using various dockside and phone surveys. For additional information regarding these fisheries or the monitoring scheme, refer to the 2003 SAFE Report (NOAA Fisheries, 2003).

3.3 Habitat

The 2003 SAFE Report and the HMS FMP address the habitat utilized by the various species targeted by the pelagic longline fishery. Typically, the fisheries targeting swordfish exist off-shore in deep water, so there is no interaction with bottom substrate or other essential fish habitat. Based on this, NOAA Fisheries does not feel this proposed rule will have any negative impacts on habitat.

3.4 Protected Species

On June 14, 2001, NOAA Fisheries released, under Section 7 of the Endangered Species Act (ESA) a Biological Opinion (BiOp) for Atlantic HMS Fisheries. This BiOp analyzed the impacts of the pelagic longline fishery on listed marine mammals and sea turtles and found that the continued operation of the Atlantic pelagic longline fishery is likely to jeopardize the continued existence of the leatherback and loggerhead sea turtles. On July 9, 2002, NOAA Fisheries implemented a final rule (67 FR 45393) to implement the Reasonable and Prudent Alternative outlined in the BiOp. NOAA Fisheries has also implemented the Reasonable and Prudent Measures and some of the Terms and Conditions of the BiOp including, but not limited to, continuing bottom longline observer program, requiring net checks in the drift gillnet fishery, and requiring pelagic and bottom longline fishermen to post sea turtle handling and release guidelines. In 2000, NOAA Fisheries estimated that the pelagic longline fleet interacted with 1256 loggerhead and 769 leatherback sea turtles.

Under Section 118 of the Marine Mammal Protection Act (MMPA), NOAA Fisheries publishes a List of Fisheries (LOF) that places all U.S. commercial fisheries into one of three categories based on the level of incidental serious injury and mortality of marine mammals that occurs in each fishery. The categorization of a fishery in the LOF determines whether participants in that fishery may be required to comply with certain provisions of the MMPA, such as registration, observer coverage, and take reduction plan requirements. On January 17, 2002 (67 FR 2410), NOAA Fisheries announced that the pelagic longline fishery is a category I fishery (animals injured or killed include humpback, minke, and pilot whales and Risso's, bottlenose, Atlantic spotted, and common dolphins). NOAA Fisheries continues to work with fishermen to reduce protected species interactions in this fishery. In 2000, NOAA Fisheries estimated that the pelagic longline fleet interacted with 403 marine mammals.

4.0 ENVIRONMENTAL CONSEQUENCES OF ALTERNATIVES CONSIDERED

NOAA Fisheries is required to implement ICCAT recommendations under ATCA, if the United States accepts those recommendations. The preferred alternatives discussed below would satisfy the United States' obligation to implement the binding conservation and management measures that have been adopted by ICCAT. The preferred alternatives are also consistent with the goals of the HMS FMP, specifically, to prevent overfishing and rebuild overfished fisheries. The environmental and economic consequences of these preferred alternatives are described below in Sections 4.0 and 5.0.

4.1 North Atlantic Swordfish Quota Levels

As described in Section 2, the alternatives considered for the North Atlantic swordfish quota levels are:

A1: Adjust the Annual North Atlantic Swordfish Quota (preferred)
A2: No Action

Ecological Impacts

NOAA Fisheries does not expect adverse ecological impacts if alternative A1 is adopted. Currently, North Atlantic swordfish are classified as overfished, however, the ICCAT SCRS 2002 stock assessment found that the biomass of this population has almost recovered to MSY. The best available science indicates that raising the basin-wide TAC from 10,400 mt ww (7,820 mt dw) to 13,900 mt ww (10,451 mt dw) will continue to recover the stock to MSY by 2009 with a greater than 50 percent probability. Adjusting the U.S. quota from 2,951 mt ww (2,219 mt dw) to 3,877 mt ww (2,915 mt dw) in 2003 and 3,907 mt ww (2,937.7 mt dw) in 2004 and 2005 would be a component of that increase.

The ecological impacts of adopting alternative A1 will vary based on the fishing effort of the United States pelagic longline fishery. Currently, the pelagic longline fleet has been unable to catch the entire U.S. swordfish quota causing significant amounts to be carried over to following years. This decrease in effort can be attributed to the time and area closures implemented in 1999, 2000, and 2001 to reduce bycatch; upgrading restrictions; incidental category catch limits; and limited access. Due to the recent underharvests in this fishery, NOAA Fisheries does not believe the increased U.S. quota will cause any adverse ecological impacts in the short term. However, if some of these restrictions are relieved in the future, it is possible that effort could increase. This potential increase in effort could result in fishermen landing more of the swordfish quota, and also have a negative impact on non-target species and protected species. NOAA Fisheries feels that fishing effort is not likely to increase during the next several years.

In 1999 and 2000, there were interactions with an estimated 991 loggerhead and 1,012 leatherback sea turtles in 1999 and 1,256 loggerhead and 769 leatherback sea turtles in 2000. Also, an estimated 403 marine mammals were taken in the pelagic longline fishery in 2000.

Dead discards of swordfish, sailfish, blue and white marlin, and several shark species decreased in 2000 compared to 1999. NOAA Fisheries does not expect the levels of incidental take to increase because an increase in fishing effort is not likely from this alternative. Additionally, NOAA Fisheries has been conducting an experimental fishery in the northeast distant statistical reporting area in an effort to reduce the impact of pelagic longline gear on sea turtles.

The increased quota could potentially lead to an increase in recreational fishing effort for swordfish. This component of the swordfish fishery is managed via the incidental category. However, due to the relatively small amount of annual catch (under 6 mt dw in the 1999 to 2001 fishing years), NOAA Fisheries does not expect an increase of catch by this category to have significant ecological impacts on target species or on non-target species. On January 7, 2003, NOAA Fisheries published a final rule (68 FR 711) that established a bag limit of one swordfish per person and three per boat per day. In addition, NOAA Fisheries expects to publish a proposed rule this year clarifying the in-season adjustment authority regarding the recreational swordfish fishery. This will allow the agency to make in-season adjustments to this fishery as necessary. These actions will allow NOAA Fisheries to more efficiently monitor the recreational swordfish fishery and better respond to management needs.

Selecting alternative A2 would maintain the U.S. quota at 2,951 mt ww while the other countries receiving an ICCAT allocation would increase their harvest. By not adopting the ICCAT quota measure, the United States would stand a good chance of losing that allocation in a future ICCAT meeting. If this occurred, other countries, many of which have less stringent environmental regulations, would receive a further increased swordfish quota. This could potentially allow greater impacts on non-target and protected species. In the short-term, there would still be underharvests in the fishery due to the current level of effort, which is not expected to change in the near future.

Social and Economic Impacts

NOAA Fisheries does not expect any negative social or economic impacts from raising the quota to 3,877 mt ww (2,915 mt dw) in 2003 and 3,907 mt ww (2,937.7 mt dw) in 2004 and 2005 (A1) compared to taking no action (A2). There is a chance that economic benefits from the proposed action would increase due to the greater ability to harvest more swordfish. Based on the 2001 ex-vessel swordfish price of $3.74 per pound, the increase, if fully harvested, would be worth about $5.7 million in 2003 [(2,915 mt dw - 2,219 mt dw)*2204.6*$3.74] and $5.9 million in 2004 and 2005. However, based on the underharvests of the past several years, NOAA Fisheries does not expect the entire quota to be utilized in the near future, thus the full potential economic benefits will not be realized. Further, as noted in Section 9, no social impacts are anticipated because effort most likely will not increase. Consequently, NOAA Fisheries does not expect a positive or negative impact on the pelagic longline fleet or dependent communities.

Conclusion

Alternative A1 is consistent with ICCAT recommendations, the Magnuson-Stevens Act, and the HMS FMP. Additionally, A1 allows the United States to maintain control of the portion of the Atlantic quota allocated to the United States. NOAA Fisheries does not expect any significant negative ecological, economic, or social impacts from implementing the alternative.

4.2 South Atlantic Swordfish Quota Levels

As described in Section 2, the alternatives considered for the South Atlantic swordfish quota levels are:

B1: *Adjust the Annual South Atlantic Swordfish Quota* (preferred)
B2: No Action

Ecological Impacts

NOAA Fisheries does not anticipate any impacts on the stock from setting the quota at 100 mt ww (75.2 mt dw), a decrease from the current 384 mt ww (289 mt dw) quota. Currently, the South Atlantic swordfish stock is not considered overfished. The ecological impacts of the U.S quota being set at this level, as proposed by alternative B1, is not significant when compared to the basin-wide South Atlantic swordfish TAC of 15,631 mt ww (11,753 mt dw). Additionally, U.S. landings in 1999, 2000, and 2001 were below the 100 mt ww quota (51, 93.8, and 69.8 mt ww respectively) (NOAA Fisheries, 2002b). NOAA Fisheries anticipates no adverse effects on sea turtles, marine mammals, or seabirds, because the quota is smaller than previous years' quota and the preferred alternative does not cause any changes to current fishing practices.

Alternative B2 would not be expected to incur any ecological impacts in the short term. Based on recent levels of fishing effort, NOAA Fisheries would not expect the status quo swordfish quota to be harvested. However, if some management restrictions, discussed previously, are relieved, effort could increase. This increase in effort could result in fishermen landing more of the swordfish quota, and also have a negative impact on non-target species and protected species. Despite the potential for an increase in fishing effort, NOAA Fisheries feels that it is not likely to increase during the next several years.

Economic and Social Impacts

No adverse economic impacts are expected from establishing the South Atlantic swordfish quota at 100 mt ww (B1). U.S. fishermen landed only 51 mt ww of South Atlantic swordfish during the 1999 fishing year. While landings were somewhat higher in 2000 and 2001 (93.8 and 69.8 mt ww), possibly due to displacement of effort resulting from time and area closures for pelagic longline vessels in the North Atlantic, NOAA Fisheries does not expect a further increase in the number of vessels shifting their effort toward the South Atlantic. Not many vessels participate in this fishery due to the need for larger vessels, longer trips, and higher trip costs. Based on these

factors, fishing in the South Atlantic may not be profitable as long as larger vessels can fish elsewhere and the North Atlantic swordfish quota has not been met.

Setting the South Atlantic quota at 100 mt ww (75.2 mt dw) (B1) would represent a decrease of 284 mt ww (213.5 mt dw) from the previous level of 384 mt ww (289 mt dw) (B2). Based on the 2001 ex-vessel swordfish price of $3.74 per pound, the decrease would be worth approximately $1.76 million [(289 mt dw - 75.2 mt dw)*2204.6*$3.74]. However, based on the harvest levels of the most recent years, NOAA Fisheries would not expect the 384 mt ww quota to be utilized in the near future. Thus, the full potential economic benefits would not be realized and, as discussed in Section 9, adverse impacts are not anticipated. Because of this, the 100 mt ww quota is not expected to be unduly restrictive for the U.S. fishery at this time and is not expected to have any significant impacts versus the status quo. However, if fishing effort in the South Atlantic does increase, the 100 mt ww quota could become restrictive and contribute to negative impacts. NOAA Fisheries feels that this scenario is unlikely, but if it occurs, alternative D1, discussed later, would minimize the impacts.

Conclusion

Alternative B1 is consistent with ICCAT recommendations, the Magnuson-Stevens Act, and the HMS FMP. NOAA Fisheries does not expect any significant negative ecological, economic, or social impacts from implementing the alternative.

4.3 2003 North Atlantic Swordfish Dead Discard Allowance

As described in Section 2, the alternatives considered for the 2003 North Atlantic swordfish dead discard allowance are:

C1: *Establish a 2003 dead discard allowance of 80 mt ww and 0 mt ww in 2004 and beyond* (preferred)
C2: No Action

Ecological Impacts

NOAA Fisheries does not expect any ecological impacts from implementing alternative C1, establishing a dead discard allowance of 80 mt ww (60.2 mt dw) for the 2003 fishing year. The pelagic longline fishery has had the benefit of a dead discard allowance in the 2000, 2001, and 2002 fishing years. This management measure allows swordfish discarded dead to be accounted for in the TAC for the entire North Atlantic stock and provides incentive for fishermen to reduce the occurrence of dead discards. Alternative C1 provides one more year of coverage before the discard allowance is removed. Following the 2003 fishing year, discards will be counted directly against the country-specific quota. Currently, NOAA Fisheries does not have the U.S. dead discard estimates for 2001 or 2002, however it was 428.3 mt ww in 2000. A final rule promulgated on August 1, 2000, (65 FR 47214) implemented time and area closures in an effort

to reduce discards of several species, including juvenile swordfish. Preliminary analyses indicate that the level of discards have been reduced (NOAA Fisheries, 2003). If the dead discard allowance is exceeded, the overage will be subtracted from the subsequent annual quota for the fishery. Based on the current level of underharvests in the fishery, any dead discard allowance overage would not have any associated impacts because the quota for the directed fishery is not being fully utilized. Due to the underharvests, the dead discard allowance overage can be subtracted without curtailing fishing effort. This alternative will not impact protected species. As the dead discard allowance does not impact the level of fishing effort that occurs, the number of protected species interactions would be expected to be the same with or with out the allowance.

Alternative C2, maintaining the status quo, would not be expected to have any ecological impacts as it would not affect the level of discards. Instead of having an 80 mt ww allowance, the entire amount of dead discards would be applied to the annual swordfish quota. Due to underharvests in previous years, deducting 80 mt ww from the U.S. swordfish quota would not be expected to have any ecological impacts.

Social and Economic Impacts

This alternative (C1) could have minor positive social and economic impacts. By implementing a dead discard allowance of 80 mt ww, all dead discards up to that amount are deducted from the basin-wide TAC, not the U.S. quota. Any discards in excess of 80 mt ww (60.2 mt dw) get deducted from the next year's U.S. quota. Depending on the amount of swordfish discarded dead from U.S. vessels in the 2003 fishing year, this alternative could preserve 80 mt ww (60.2 mt dw) of domestic swordfish quota compared to the no action alternative (C2). That amount of quota would be worth approximately $500,000 (60.2 mt dw * 2204.6 lbs/mt * $3.74 per lb) using the 2001 ex-vessel price for swordfish. However, as the U.S. has had significant underharvests in recent years, the actual monetary impact is negligible.

Conclusion

Alternative C1 is consistent with ICCAT recommendations, the Magnuson-Stevens Act, and the HMS FMP. NOAA Fisheries does not expect any significant negative ecological, economic, or social impacts from implementing the alternative.

4.4 North Atlantic Swordfish Adjusted Catch Area

As described in Section 2, the alternatives considered for the North Atlantic swordfish adjusted catch area are:

D1: *Up to 200 mt ww of the U.S. North Atlantic swordfish quota may be harvested in the area between 5 degrees North and 5 degrees South latitude* (preferred)
D2: No Action

Ecological Impacts

NOAA Fisheries does not expect any significant ecological impacts from the implementation of the preferred alternative (D1) compared to the status quo (alternative D2). The North Atlantic and South Atlantic swordfish stocks are believed to mix in this area of the ocean. The majority of the U.S. fishing effort in the South Atlantic Ocean occurs in the area between 5 degrees North and 5 degrees South (Cramer, 2001). Expanding the approved fishing area to allow 200 mt ww (150 mt dw) of North Atlantic swordfish quota to be taken from the area bounded by 5 degrees North and 5 degrees South latitude would not cause additional impacts on swordfish, non-target finfish, and protected species. In addition to the 200 mt ww allocation of North Atlantic swordfish, the quota level established by alternative B1 is available to vessels fishing in the South Atlantic Ocean . Together, the quota allocated by B1 (100 mt ww) and D1 (200 mt ww) would be less than the U.S. quota in the South Atlantic prior to this proposed rulemaking (384 mt ww). Based on underharvests in recent years, the quota has not been fully harvested and NOAA Fisheries does not expect this to change in the near future. Currently, the area in alternative D1 does not have a high rate of protected species interactions, and this alternative would not be expected to increase them.

Alternative D2 would limit the amount of South Atlantic swordfish harvested to 100 mt ww. While the impact on the swordfish stock of adopting alternative D2 would be minimal, it could have a beneficial effect for protected species. However, given the current levels of underharvests and regulations in the fishery, it is unlikely that alternative D2 will offer significant reductions in protected species interactions than alternative D1 .

Social and Economic Impacts

Based on the recent level of effort in this area, NOAA Fisheries does not expect this proposed alternative to negatively impact participants in the pelagic longline fishery. Currently, the majority of the U.S. fishing effort in the South Atlantic Ocean is within 5 degrees North and 5 degrees South. Increase in the amount of swordfish that may be harvested from this area will not have a negative impact on the fleet. Potentially, alternative D1 could allow an increase in revenue of approximately $1.24 million (150 mt dw * 2204.6 lbs/mt * $3.74) compared to alternative D2. If the level of effort expands in this area due to vessels shifting away from the time and area closures implemented off the U.S. East Coast and in the Gulf of Mexico, the proposed alternatives could improve the economic and social situation of the vessels choosing to fish in this area. Because the South Atlantic swordfish quota for the 2003 fishing year is 100 mt ww (75.2 mt dw), fishing in the area proposed by alternative D1 could allow the harvest of an additional 200 mt ww (150 mt dw) of swordfish that could be applied again the North Atlantic swordfish quota. If catches and effort in the South Atlantic area increase, the 100mt ww quota proposed by alternative B1 could limit the South Atlantic swordfish harvest. While NOAA Fisheries feels this would be unlikely, the ability to harvest an additional 200 mt ww above the 100 mt ww South Atlantic swordfish quota would alleviate any harmful social or economic impacts from implementing alternative B1. If the North Atlantic quota becomes fully utilized in the future, allowing up to 200 mt ww to be caught below 5 degrees South could have negative economic impacts on the North Atlantic fishery. Based on the current quota underharvest, NOAA Fisheries feels that this is unlikely to occur.

Conclusion

Alternative D1 is consistent with ICCAT recommendations, the Magnuson-Stevens Act, and the HMS FMP. NOAA Fisheries does not expect any significant negative ecological, economic, or social impacts from implementing the alternative.

4.5 Transfer North Atlantic Swordfish Quota to Canada

As described in Section 2, the alternatives considered for the North Atlantic swordfish quota transfer are:

E1: *Transfer 25 mt ww of North Atlantic swordfish quota to Canada in 2003, 2004, and 2005* (preferred)
E2: No Action

Ecological Impacts

Proposed alternative E1, transferring 25 mt ww (18.8 mt dw) of North Atlantic swordfish quota to Canada, is not expected to have significant ecological impacts. While there are differences between Canadian and American longline sets, an additional 25 mt ww of swordfish quota will not dramatically affect non-target species or protected species. The levels of bycatch in the two fisheries is assumed to be relatively analogous based on the proximity of fishing areas and the

similarity of fishing gear. Adopting alternative E2 would make it less likely that the 25 mt ww of swordfish was caught in the immediate future, but it would be caught eventually. Thus, the ecological impacts would be similar to those incurred by E1. This alternative will not affect A1 or D1 due to the large amount of the current U.S. underharvests.

Social and Economic Impacts

Due to recent underharvests, NOAA Fisheries anticipates that the U.S. pelagic longline fishery will have sufficient quota available to allow for the transfer of 25 mt ww to Canada without limiting the amount the U.S. fleet can catch. Because of the declining level of effort in the pelagic longline fleet, implementing alternative E1 is not expected to have any economic or social impact on U.S. fishermen. The gross ex-vessel revenue from 25 mt ww would be about $155,000 per year (18.8 mt dw * 2204.6 lbs/mt dw * $3.74 per pound). The pelagic longline fishery could keep this amount if alternative E2 would be implemented. However, NOAA Fisheries feels that over the next few years the current U.S. pelagic longline fleet is not likely to harvest the 25 mt ww that would be transferred to Canada. Therefore, the economic and social impacts of implementing this alternative are negligible.

Conclusion

NOAA Fisheries concludes that alternative E1 would not have significant ecological, economic, or social impacts. The implementation of this alternative is preferred over the status quo as a means of maintaining compliance with the 2002 ICCAT recommendations. NOAA Fisheries proposes transferring this quota from the reserve category each fishing year.

4.6 Impacts on Essential Fish Habitat

As described in the HMS FMP, pelagic longline gear is suspended in the water column and does touch the bottom substrate. Because of the nature of the fishing gear, it is unlikely that it would alter the habitat for prey species. Additionally, as the proposed actions are not expected to change fishing practices or effort, this proposed rule is not expected to change the impact of pelagic longline gear on EFH beyond those impacts considered in the HMS FMP.

4.7 Impacts on Other Finfish Species

As described in the sections above, the proposed actions are not expected to significantly alter fishing practices or effort and therefore should not have any impact on other finfish species that have not already been considered in the HMS FMP or the final supplemental environmental impact statements finalized since then. Finfish bycatch for the pelagic longline fishery includes swordfish, tunas, sharks, billfish, dolphin, wahoo, and more. Because the action will not result in a change in fishing effort or practices, NOAA Fisheries does not expect that sustainability of these bycatch species will be jeopardized by the action.

4.8 Impacts on Protected Species Listed under the Endangered Species Act or Marine Mammal Protection Act

As described in this section, the proposed alternatives are not expected to drastically alter fishing practices or effort. Thus, NOAA Fisheries believes that these alternatives do not change the conclusion of, nor would they result in effects that have not been considered in, the June 2001 BiOp. Similarly, the proposed alternatives in this document are not expected to change the number or rate of interactions with marine mammals.

4.9 Environmental Justice Concerns

Executive Order 12898 requires that federal actions address environmental justice in the decision-making process. In particular, the environmental effects of the actions should not have a disproportionate effect on minority and low-income communities. The proposed actions in this document would not have any effects on human health. Additionally, the proposed actions are not expected to have any social or economic effects and should not have a disproportionate effect on minority and low-income communities.

4.10 Coastal Zone Management Act Concerns

NOAA Fisheries has preliminarily determined that the proposed regulations would be implemented in a manner consistent to the maximum extent practicable with the enforceable policies of those Atlantic, Gulf of Mexico, and Caribbean coastal states that have approved coastal zone management programs. The proposed regulations will be submitted to the responsible state agencies for their review under Section 307 of the Coastal Zone Management Act.

4.11 Comparison of Alternatives

Table 4.1 **Comparison of Proposed Alternatives.** This table compares the impacts of the alternatives considered in this section. The symbols +, -, 0 refer to positive, negative, and zero impacts respectively. Minor impacts and impacts that are possible but unlikely are noted with + or -. More than minor impacts are noted with ++ or –, and significant impacts are noted with +++ or ---. Refer to the proceeding sections for details of the impacts of each alternative.

Management Measure	Ecological Impacts	Economic Impacts	Social Impacts
A1: **Preferred**	-	+	0
A2	-	0	0
B1: **Preferred**	+	-	-
B2	-	0	0
C1: **Preferred**	0	+	+
C2	0	0	0
D1: **Preferred**	0	+/-	+/-
D2	+	-	0
E1: **Preferred**	0	0	0
E2	0	0	0

4.12 Cumulative Impacts

On May 28, 1999, NOAA Fisheries published a final rule (64 FR 29090) that implemented the HMS FMP and Amendment One to the Atlantic Billfish FMP, and that consolidated regulations for Atlantic HMS into one C.F.R. part. The Final Environmental Impact Statements (FEIS)

associated with these FMPs addressed the rebuilding and ongoing management of Atlantic tunas, swordfish, sharks, and billfish. Alternatives to rebuild and manage the Atlantic swordfish fisheries included, among other things, quotas levels, retention and size limits, upgrading restrictions, overharvest and underharvest adjustment authority, and permitting and reporting requirements, including a limited access system. The HMS FMP concluded that the cumulative long-term impacts of these and other management measures would be to rebuild overfished fisheries, minimize bycatch and bycatch mortality, to the extent practicable; identify and protect essential fish habitat; and minimize adverse impacts of fisheries regulations on fishing communities, to the extent practicable.

Since the HMS FMP, NOAA Fisheries has finalized two supplemental environmental impact statements. The first one, published in June 2000, analyzed management measures, particularly time area closures, to reduce bycatch, bycatch mortality, and incidental catch in the pelagic longline fishery. The final actions were expected to have negative direct, indirect, and cumulative economic and social impacts for pelagic longline fishermen and were expected to have positive benefits regarding reduction in bycatch and bycatch mortality.

The second supplemental environmental impact statement, published in July 2002, implemented the measures in a June 14, 2001, Biological Opinion addressing of sea turtle bycatch and bycatch mortality in HMS fisheries. Certain measures in this rulemaking, such as the closure of the Northeast Distant Area (NED) to pelagic longline vessels, are expected to have negative direct, indirect, and cumulative economic and social impacts on pelagic longline fishermen, which are mitigated in the short-term for vessels that participate in an experimental fishery in the NED. Other measures, such as requiring gangions to be 10 percent longer than floatlines, requiring the use of corrodible, non-stainless steel hooks, reporting lethal sea turtle takes within 48 hours, and posting sea turtle handling and release guidelines in the wheelhouse were not expected to have serious impacts.

As discussed in section 1 of this document, the proposed alternatives are management recommendations from the 2002 meeting of ICCAT for the North and South Atlantic swordfish stocks. Taking into consideration the HMS FMP, the August 2000 bycatch and time area rule, and the July 2002 rule implementing the BiOp measures, NOAA Fisheries expects no adverse cumulative impacts in the short-term from this proposed rule. While some of the alternatives, such as alternative A1 and B1, could have long-term ecological and/or economic and social impacts if effort increases, which NOAA Fisheries believes to be unlikely, the proposed actions are not expected to change current fishing practices or effort or to cause significant ecological, economic, and social impacts. As the potential for these impacts is directly based on the level of effort in the North and South Atlantic fisheries in future years and because a number of major regulations have occurred in such a short period of time, it is difficult to assess the impacts at this time. However, NOAA Fisheries will continue to monitor effort levels in the pelagic longline fishery and will take action if effort levels, and therefore interactions with protected species or other bycatch, increase. In all, the proposed actions, both individually and in combination with each other, would continue to prevent overfishing or facilitate rebuilding of the stocks without significant adverse economic or social impacts.

5.0 MITIGATION AND UNAVOIDABLE ADVERSE IMPACTS

5.1 Mitigating Measures

NOAA Fisheries does not expect any of the proposed alternatives to have any major adverse ecological, economic, or social impacts. As noted earlier, although unlikely, alternative B1 could have some negative economic and social impacts. Alternative D1 would mitigate any of the possible impacts. Moreover, NOAA Fisheries will continue to monitor the pelagic longline fishery and will take action if interactions with protected species, or other bycatch, increase. NOAA Fisheries has requested comments on the preferred alternatives and the submissions may indicate an issue that requires further consideration.

5.2 Unavoidable Adverse Impacts

The proposed alternatives will assist NOAA Fisheries in achieving the objective of this rulemaking and the Magnuson-Stevens Act and are not expected to have any unavoidable adverse impacts.

5.3 Irreversible and Irretrievable Commitment of Resources

The proposed alternatives would assist NOAA Fisheries in achieving the objective of this rulemaking and the Magnuson-Stevens Act and are not expected to have any irreversible or irretrievable commitments of resources.

6.0 ECONOMIC EVALUATION

This section primarily addresses the economic impacts of the proposed alternatives for North Atlantic swordfish. This analysis concentrates on the commercial fishery because at this time the recreational fishery does not contribute significantly to total swordfish landings (the recreational sector landed 15.6 mt ww of swordfish in 2001 compared with the 2,526.2 mt ww landed by the commercial sector). NOAA Fisheries has been working on a strategy to enhance the monitoring of recreational handgear-caught swordfish. A final rule became effective on March 2, 2003, that requires the mandatory reporting of recreationally-landed swordfish via a toll-free call-in system (68 FR 711, January 7, 2003).

6.1 Number of Fishing and Dealer Permit Holders

The commercial fishery is composed of fishermen who hold a swordfish directed, incidental, or handgear permit and the related industries including processors, bait houses, and equipment suppliers, all of which NOAA Fisheries considers to be small entities. In October 2002, there were approximately 205 fishermen with a directed swordfish limited access permit, 110 fishermen with an incidental swordfish limited access permit, and 94 fishermen with a handgear limited access permit for swordfish (see Table 3.1). The number of active pelagic longline vessels has been decreasing since 1994, as shown in Table 6.1 which lists the number of active vessels from 1990 to 2000.

Because the commercial handgear fishery (troll, handline, and harpoon) only landed 16.3 mt ww of swordfish in 2001, NOAA Fisheries feels that they will not be affected by the alternatives considered. Because the pelagic longline fishery contributes most of the effort and catches most of the swordfish quota, the analyses in this section focus on that fishery.

Table 6.1 **The number of vessels that reported fishing with pelagic longline gear in the pelagic logbook.** Source: Cramer, 2001.

Year	Number of active vessels	Year	Number of active vessels
1990	416	1996	367
1991	333	1997	350
1992	337	1998	286
1993	434	1999	224
1994	501	2000	199
1995	489		

In contrast to the number of limited access permits and active vessels, the number of swordfish dealer permits has remained stable from 2000 to 2002 (the numbers are 312, 302, and 321 respectively). The primary concentration of dealers is in Florida, followed by California,

Massachusetts, and New York. There are also U.S. swordfish dealers in Canada, Chile, Uruguay, and Ecuador.

6.2 Gross Revenue of Fishermen

The gross revenues of pelagic longline vessels vary greatly depending on the location and species targeted. Using the weight of fish landed per trip as reported in 2000 weigh-out slips and the average 2001 ex-vessel price for the fleet [$3.74 was the average ex-vessel price for swordfish across all regions. (NOAA Fisheries 2003)], NOAA Fisheries calculated the average gross revenues per trip and per vessel for pelagic longline vessels. This information indicates that overall, the average pelagic longline vessel has annual gross revenues of $168,114 (range of less than $1,000 to almost $800,000) and that combined the 171 vessels reporting HMS landings in both the pelagic logbook and the weigh-out slips in 2000 had total annual gross revenues of almost $29 million. Most of these gross revenues were derived from swordfish and yellowfin tuna landings (Table 6.2). The total amount of ex-vessel revenue from the available swordfish quota could be about $24 million if fully harvested.

Table 6.2 **The species composition of landings in the pelagic longline fleet in 2000.** Source: Logbook and weigh-out data maintained by the Southeast Fisheries Science Center.

Species	% by number	% by weight	% by gross revenues
Swordfish	37.34	43.71	51.93
Yellowfin tuna	42.68	41.21	34.31
Bigeye tuna	7.32	7.43	8.00

Species	% by number	% by weight	% by gross revenues
Bluefin tuna	0.14	0.95	3.09
Other tunas	5.69	2.35	0.60
Pelagic sharks	1.82	2.13	1.16
Large coastal sharks	5.00	2.22	0.91

6.3 Variable Costs and Net Revenues

For a recent description of some of the variable costs and net revenues for the pelagic longline fishery, please see Section 8.1 of the FSEIS for the Final Rule to Reduce Sea Turtle Bycatch and Bycatch Mortality in HMS Fisheries (NOAA Fisheries, 2002a). Beginning in 2003, NOAA Fisheries initiated mandatory cost earnings reporting for selected vessels in order to improve the economic data available for all HMS Fisheries.

6.4 Expected Economic Impacts of the Alternatives Considered

The proposed alternative A1 increases the annual quota by 926 mt ww (696.2 mt dw) in 2003 and 956 mt ww (718.8 mt dw) in 2004 and 2005. Assuming that these quota amounts can be fully caught in their respective years, the ex-vessel monetary value of the swordfish quota increase is $5.74 million in 2003 and $5.93 million in 2004 and 2005, based on the 2001 ex-vessel swordfish price of $3.74 per pound. This represents a revenue increase of about 24% over the no action alternative (assuming the quota is fully harvested). However, given the unlikelihood that the pelagic longline fleet will be able to catch that amount, due to the current level of effort and recent underharvests of 201.1 mt dw in 2000 and 1,025.4 mt dw in 2002, the economic benefit of the increased quota may not be realized. Thus, under either A1 or A2, the economic benefits or cost to individual fishermen or communities is unlikely to change.

The preferred alternative B1 of setting the South Atlantic swordfish annual quota at 100 mt ww (75.2 mt dw) for 2003 to 2005 and at 120 mt ww (90.2 mt dw) for 2006 could have negative economic impacts of about $1.76 million. This represents a revenue decrease of about 74% compared to the no action alternative (assuming the quota is fully harvested). NOAA Fisheries feels that the actual impact of alternative B1 will be negligible due to the level of underharvests in recent years (see Section 4.2). The total ex-vessel value of the swordfish under the proposed quota would be about $620,000. The South Atlantic swordfish landings from the directed fishery during the 2000 and 2001 fishing years were reported to be 93.8 mt ww and 69.8 mt ww, respectively. For the past several years, the annual quota was 384 mt ww (289.0 mt dw). The proposed quota decrease could limit the catch of South Atlantic swordfish if the current level of effort is maintained. However, current catches have not exceeded the proposed quota. Additionally, the proposed alternative (D1) of allowing up to 200 mt ww of swordfish harvested between 5 degrees North and 5 degrees South latitude could alleviate any concern over the quota reduction.

The proposed alternative C1 establishing the dead discard allowance of 80 mt ww (60.2 mt dw) in 2003 could provide some economic benefits in the short term. By allowing up to 80 mt ww of dead discards to be counted against the basin-wide TAC instead of the U.S. quota, the proposal allows the pelagic longline fleet to potential harvest the 80 mt ww that would have been used to cover the dead discards. This amount of swordfish has an ex-vessel value of about $500,000. In the years following the 2003 fishing year, the dead discard allowance will be set at 0 mt ww. Any dead discards in the pelagic longline fishery will be deducted from the directed category quota in the following year. Given the current amount of underharvests in the fishery, deducting from the quota will have no impact in the short term. However, if quota is reached, the additional 80 mt ww could have an impact.

At this time, it is difficult to quantify the economic impact of alternative D1, allowing up to 200 mt ww of swordfish caught between 5 degrees North and 5 degrees South latitude to be counted against the North Atlantic swordfish quota. If the 100 mt ww quota implemented by alternative B1 limits fishing effort, alternative D1 could allow an increase in the catch of swordfish by 200 mt ww for an economic benefit of $1.24 million. The no action alternative, D2, would prevent the harvesting of more than 200 mt ww of South Atlantic swordfish. The realized economic benefits or impacts of this alternative will be contingent upon the amount of fishing effort in the

area. Based on recent years, NOAA Fisheries does not expect effort to increase which means the impacts should be negligible.
Transferring 25 mt ww of North Atlantic swordfish quota to Canada (alternative E1) could have a negative economic impact ($155,000 per year through 2005). However, given the current amount of underharvests, NOAA Fisheries does not expect the quota transfer to impact the fleet meaning the economic impact will be negligible. Based on the amounts of the recent quota underages, the impacts of recent management actions, and the level of effort in the fishery, NOAA Fisheries feels that it is unlikely that the pelagic longline fleet would catch the existing quota amount (including quota roll-overs). The no action alternative, E2, would preserve the 25 mt ww quota for 2003 through 2005 for the U.S. fishery. However, due to the magnitude of the current underharvests, it is unlikely that the 25 mt ww of swordfish would be caught during 2003 to 2005.

In considering the preferred alternatives together, NOAA Fisheries does not expect significant positive or negative economic impacts. Currently, the United States does not catch its entire quota. The preferred alternatives both add (A1 and D1) and take quota away (B1, C1, and E1). However, the net impact of the alternatives still results in a quota level that is greater than current catches. Because of restrictions already in place, NOAA Fisheries does not expect current catches to increase. Thus, the overall economic impact is minimal.

7.0 REGULATORY IMPACT REVIEW

7.1 Description of the Management Objectives

Please see Section 1 for a description of the objectives of this rulemaking.

7.2 Description of the Fishery

Please see Section 3 for a description of the fisheries that could be affected by this rulemaking.

7.3 Statement of the Problem

Please see Section 1 for a description of the problem and need for this rulemaking.

7.4 Description of Each Alternative

Please see Section 2 for a summary of each alternative and section 4 for a complete description of each alternative and its expected ecological, social, and economic impacts.

7.5 Economic Analysis of Expected Effects of Each Alternative Relative to the Baseline

NOAA Fisheries does not believe that the national net benefits and costs would change significantly in the long run as a result of implementation of the preferred alternatives compared to the baseline of no action. For the 2003 fishing year, the present value of gross and net revenues for the swordfish fishery at the ex-vessel level could be increased, but that would depend on the extent to which fishermen can expand their effort to catch the quota. Table 7.1 indicates possible changes as a result of each alternative.

Alternative A1 increases the North Atlantic swordfish quota while significant underharvests currently exist. Alternatives D1 and E1 allow up to 200 mt ww and 25 mt ww to be utilized for the South Atlantic fishery and Canada respectively. Due to the combination of the underharvest and the increased quota by A1, the overall impact of these measures will be minimal. Alternative B1 reduces the South Atlantic quota to a level that is approximately equivalent to the recent harvest. There will be no significant impact unless the level of effort increases, which NOAA Fisheries feels is unlikely. Alternative D1 allows up to 200 mt ww of swordfish harvested in between 5 degrees North and 5 degrees South, what was previously considered South Atlantic swordfish, to be applied to the North Atlantic quota. This would alleviate any negative impact imposed by alternative B1. Alternative C1 would have a positive impact if the North Atlantic swordfish quota was fully utilized, but until that happens, there is no impact from this alternative.

Table 7.1 Summary of benefits and costs for each alternative.

Management Measure	Net Economic Benefits	Net Economic Costs
A1: Adjust annual North Atlantic swordfish quota **Preferred**	*Long-term:* Could increase ex-vessel gross revenue by about $5.73 million if the pelagic longline fleet increases effort and harvests entire quota. Increase in effort could benefit dealers and suppliers. *Short-term:* None expected.	*Long-term*: If fishermen decide to increase effort, individuals could have additional costs from gear, fuel, groceries, etc. *Short-term*: None expected.
A2: No Action	*Long-term*: None. *Short-term*: None.	*Long-term*: Potentially lose quota allocation from ICCAT which limits potential to increase revenue. *Short-term*: None.
B1: Adjust the Annual South Atlantic Swordfish Quota **Preferred**	*Long-term*: None expected. *Short-term*: None expected.	*Long-term*: Could limit catch and gross revenue if effort level in fishery increases. *Short-term*: Minimal.
B2: No Action	*Long-term*: Could allow fishing effort to increase generating more revenue for participating vessels. *Short-term*: None.	*Long-term*: Minimal. *Short-term*: Minimal.

Management Measure	Net Economic Benefits	Net Economic Costs
C1: Establish a 2003 dead discard allowance of 80 mt ww and 0 mt ww in 2004 and beyond **Preferred**	*Long- term*: None. *Short-term*: Allows up to 80 mt ww of dead discards to be counted against Atlantic TAC, not US quota. Potentially saves US fishermen $500,000.	*Long-term*: If dead discards are not reduced, then US quota is impacted which limits potential revenue. *Short-term*: None.
C2: No Action	*Long-term*: None. *Short-term*: None.	*Long-term*: Minimal. *Short-term*: Could allow up to 80 mt ww of quota to be lost due to dead discards
D1: Up to 200 mt ww of the North Atlantic swordfish quota may be harvested in the area between 5 degrees North and 5 degrees South latitude **Preferred**	*Long-term*: If catch increases beyond 100 mt ww quota, could allow South Atlantic vessels to increase revenue by utilizing up to an additional 200 mt ww of quota. *Short-term*: Minimal, unless 100 mt ww quota is exceeded.	*Long-term*: If North Atlantic quota becomes fully utilized, could cause competition between North and South Atlantic fleets for the 200 mt ww of quota and decrease revenue. *Short-term*: Minimal.
D2: No Action	*Long-term*: None. *Short-term*: None.	*Long-term*: Could limit effort and revenue in South Atlantic swordfish fishery. *Short-term*: Minimal.

Management Measure	Net Economic Benefits	Net Economic Costs
E1: Transfer 25 mt ww of North Atlantic swordfish quota to Canada **Preferred**	*Long-term*: None. *Short-term*: None.	*Long-term*: If the US fishermen fully utilize quota, could reduce gross revenues by $155,000. *Short-term*: Minimal.
E2: No Action	*Long-term*: Could allow US fishermen an additional 25 mt ww of swordfish catch. *Short-term*: None.	*Long-term*: Minimal. *Short-term*: Minimal.

7.6 Summary

Under E.O. 12866, an action is considered significant if the regulations result in a rule that may:

1. Have an annual effect on the economy of $100 million or more or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local, or tribal governments or communities;
2. Create a serious inconsistency or otherwise interfere with an action taken or planned by another agency;
3. Materially alter the budgetary impacts of entitlements, grants, user fees, or loan programs or the rights and obligations of recipients thereof; or
4. Raise novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in E.O. 12866.

The proposed actions described in this document and in the proposed rule do not meet the above criteria. Therefore, under E.O. 12866, the proposed rule is not a significant regulatory action.

8.0 INITIAL REGULATORY FLEXIBILITY ANALYSIS

8.1 Description of the Reasons Why Action is Being Considered

Please see section 1 of this document for a description of the need for the proposed rule.

8.2 Statement of the Objectives of, and Legal Basis for, the Proposed Rule

Please see section 1 of this document for a description of the objectives and legal basis for the proposed rule.

8.3 Description and Estimate of the Number of Small Entities to Which the Proposed Rule Will Apply

NOAA Fisheries considers all permit holders to be small entities. A description of the fisheries affected can be found in Section 3.0 of this document. As described in section 6.1, there are currently 409 permit holders of which fewer than 200 have reported swordfish landings. Most of these landings occur with pelagic longline gear. Other sectors of HMS fisheries such as dealers, processors, bait houses, and gear manufacturers might be affected by the proposed regulations. However, the proposed rule does not apply directly to them, only to permit holders and fishermen. As such, economic impacts on these other sectors are discussed in other sections of this document but not here.

8.4 Description of the Projected Reporting, Record-keeping, and Other Compliance Requirements of the Proposed Rule

None of the proposed alternatives in this document would result in additional reporting, record-keeping, compliance, or monitoring requirements for the public. Alternatives A1, B1, and E1 do not adjust the current reporting and record-keeping requirements existing in the HMS regulations. Alternative C1 maintains a measure that currently exists for an additional year. Alternative D1, allowing up to 200 mt ww of North Atlantic swordfish quota to be harvested in an area between 5 degrees North and 5 degrees South, involves an additional monitoring requirement for NOAA Fisheries, but not for the fishermen. Vessels will have to be aware of their fishing location and how much swordfish has been harvested in order to take advantage of the ability to catch up to 200 mt ww in that area. NOAA Fisheries will use logbook submissions to monitor the amount of quota harvested and notify the participants in the fishery when the quota is almost reached.

8.5 Identification of all Relevant Federal Rules which may Duplicate, Overlap,or Conflict with the Proposed Rule

Fishermen, dealers, and managers in these fisheries must comply with a number of international agreements, domestic laws, and other FMPs. These include, but are not limited to, the

Magnuson-Stevens Act, the Atlantic Tunas Convention Act, the High Seas Fishing Compliance Act, the Marine Mammal Protection Act, the Endangered Species Act, the National Environmental Policy Act, the Paperwork Reduction Act, and the Coastal Zone Management Act. NOAA Fisheries strives to ensure consistency among the regulations with Fishery Management Councils and other relevant agencies. NOAA Fisheries does not believe that the proposed alternatives would conflict with any relevant regulations, federal or otherwise.

8.6 Description of any Significant Alternatives to the Proposed Rule that Accomplish the Stated Objectives of Applicable Statutes and that Minimize any Significant Economic Impact of the Proposed Rule on Small Entities

One of the requirements of an IRFA is to describe any alternatives to the proposed rule which accomplish the stated objectives and which minimize any significant economic impacts. These impacts are discussed below and in other sections of this document. Additionally, the Reg Flex Act (5 U.S.C. § 603 (c) (1)-(4)) lists four types of alternatives which should be discussed. These alternatives (all of which assume the proposed action could impact small entities differently than large entities) are:

1. Establishment of differing compliance or reporting requirements or timetables that take into account the resources available to small entities
2. Clarification, consolidation, or simplification of compliance and reporting requirements under the rule for such small entities
3. Use of performance rather than design standards
4. Exemptions from coverage of the rule for small entities

Under the first and fourth alternatives listed above, NOAA Fisheries considers all permit holders to be small entities, and thus, in order to meet the objectives of this proposed rule and address the management concerns at hand, NOAA Fisheries cannot exempt small entities or change the reporting requirements for small entities. The second and third alternatives are relevant but are not practical under this proposed rule. NOAA Fisheries is proposing these alternatives to comply with ICCAT recommendations which are negotiated between many countries. Thus, the proposed measures cannot easily be adjusted or modified. Additionally, the proposed measures are adjustments to current regulations and do not significantly change compliance measures.

The alternatives proposed by NOAA Fisheries add and subtract quota from the U.S. Atlantic swordfish fisheries. Alternatives A1 and D1 add quota to the North and South Atlantic fisheries respectively. Individuals would need to increase effort to fully harvest the allocations which could increase costs. However, NOAA Fisheries feels that it is unlikely that the quotas will be fully harvested. Alternatives B1 and E1 reduce the quota amounts available to U.S. fishermen. Due to the current level of underharvests that exist in the fishery, it is unlikely that these measures will have a noticeable impact in the near future. Alternative C1 reduces the impacts of dead discards in 2003. The level of underharvests in the North Atlantic fishery make it unlikely that the impact will be noticed. In general, NOAA Fisheries does not believe that this proposed

rule would have a significant impact on small entities. No other alternatives exist that would minimize any impacts of the proposed alternatives and meet legal obligations.

9.0 COMMUNITY PROFILES

Mandates to conduct social impact assessments come from both the National Environmental Policy Act (NEPA) and the Magnuson-Stevens 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.

The HMS FMP indicates that the following towns should considered for in-depth analysis due to the importance of the pelagic longline fishery: Gloucester, MA; New Bedford, MA; Barnegat Light, NJ; Wanchese, NC. Detailed information regarding each location can be found in the HMS FMP and will not be repeated here. The anticipated impacts of all the proposed actions will be minor in all of these communities.

As mentioned in previous sections, the proposed alternatives are expected to have little economic impact on the fishery and the dependent communities. Additionally, the proposed alternatives are not expected to have significant social impacts. None of the alternatives drastically modify the fishery as it current exists. For example, alternative A1 increases the amount of swordfish quota available to United States fishermen. Because the current quota is underharvested, there are no significant economic or social impacts expected from increasing the quota. However, if fishermen increase their effort in an attempt to increase their harvest, that could incur some social impacts such as increased time at sea, etc. NOAA Fisheries feels that the active participants in this fishery are already expending a high amount of effort, so an increase in fishing effort would be unlikely. Alternative B1 could limit the number of trips vessel make to the South Atlantic area, but alternative D1 compensates for that quota reduction. Thus, NOAA Fisheries does not expect fishermen to increase their travel time or dealers to be impacted by the proposed regulations. Alternative C1 would allow up to 80 mt ww of dead discards to be counted against the total Atlantic TAC instead of the U.S. quota which could be a positive measure. However, the current level of underharvests in the fishery make the impact of a dead

discard allowance negligible. Transferring 25 mt ww to Canada, alternative E1, would potentially have a negative social impact if the quota was being fully utilized. However, with the current level of fishing effort, that is unlikely, so the transfer is not expect to have a negative social impact.

10.0 OTHER CONSIDERATIONS

10.1 National Standards

The analyses in this document are consistent with the National Standards (NS) set forth in the 50 C.F.R. part 600 regulations.

This proposed rule is consistent with NS 1 in that according to the latest stock assessment it would prevent the overfishing of swordfish in the Atlantic Ocean. Because the alternatives are based on the results of the 2002 ICCAT SCRS stock assessment, the alternatives considered are based on the best scientific information available (NS 2), including self-reported, observer, and stock assessment data which provide for the management of the species throughout its ranges (NS 3). The proposed alternatives do not discriminate against fishermen in any state (NS 4) nor do they alter the efficiency in utilizing the resource (NS 5). With regard to NS 6, the proposed alternatives take into account any variations that may occur in the fishery and the fishery resources. Additionally, NOAA Fisheries considered the costs and benefits of these management measures economically and socially under NS 7 and 8 in sections 6, 7, 8, and 9 of this document. The proposed measures would ensure that bycatch is accounted for in the Atlantic swordfish fisheries and that NOAA Fisheries has considered the impact of the proposed actions on protected species (NS 9). Finally, this proposed rule would not require fishermen to fish in an unsafe manner (NS 10).

10.2 Paperwork Reduction Act

This action does not contain a collection-of-information requirement for purposes of the Paperwork Reduction Act. Under this action, vessels would continue to fill out logbooks previously approved under OMB Control Number 0648-0371.

10.3 State Jurisdiction Pertaining to Atlantic Tunas Convention Act

NOAA Fisheries does not feel that these proposed regulations would interfere with the jurisdiction of any of the relevant states. A letter will be sent to each state bordering the Atlantic Ocean and Gulf of Mexico regarding these regulations and U.S. jurisdiction under ATCA.

10.4 Federalism

This action does not contain regulatory provisions with federalism implications sufficient to warrant preparation of a Federalism Assessment under E.O. 13132.

11.0 CONSIDERATION OF NOAA AND CEQ SIGNIFICANT IMPACT CRITERIA

The NOAA Administrative Order 216-6 (revised May 20, 1999) identifies nine criteria, in addition to the Council on Environmental Qualities's (CEQ) regulations at 40 CFR § 1508.27, for determining the significance of the impacts of an action for purposes of the National Environmental Policy Act. For the EA in this document, the NAO 216-6 and CEQ criteria are addressed as follows:

(*1*) *Can the action be reasonably expected to jeopardize the sustainability of any target species that may be affected by the action?*

Implementation of the proposed rule would not jeopardize the sustainability of any target species. Increasing the Atlantic swordfish quota is consistent with the advice from the ICCAT SCRS and will maintain the goals of the swordfish rebuilding plan. Likewise, the other alternatives are not expected to adversely impact sustainability.

(2) Can the action be reasonably expected to jeopardize the sustainability of any non-target species?

The action is not expected to jeopardize the sustainability of any non-target species. The impacts on protected and non-target species are discussed in Section 4.0. NOAA Fisheries currently monitors the fisheries related impacts on protected and non-target species and can adjust the management of the fishery to maintain the sustainability of non-target species. Additionally, we do not expect increases in effort, so there should be no increase in interactions.

(3) Can the action be reasonably expected to allow substantial damage to the ocean and coastal habitats and/or essential fish habitat (EFH) as defined under the Magnuson-Stevens Act and identified in FMPs?

The proposed alternatives primarily affect the pelagic longline fishery for swordfish and tunas. As this fishery occurs offshore in areas of open ocean, there is no danger of damaging ocean and coastal habitats or EFH. Additionally, the proposed measures would not impact entities in the National Register of Historic Places or cause destruction to significant scientific, cultural, or historic resources.

(4) Can the action be reasonably expected to have a substantial adverse impact on public health or safety?

Like all offshore fisheries, pelagic longlining can be dangerous. Fishermen have pointed out that due to decreasing profit margins, they may have to fish with less crew or less experienced crew or may not have the time or money to complete necessary maintenance tasks. NOAA Fisheries cannot influence the market to improve profits to fishermen, but rather encourages fishermen to be responsible in fishing and maintenance activities. Safety factors were considered in selecting

the proposed actions, and NOAA Fisheries has concluded that the proposed alternatives are not likely to affect safety at sea.

(5) Can the action be reasonably expected to have an adverse impact on endangered or threatened species, marine mammals, or critical habitat of these species?

No irreversible or irretrievable commitments of resources are expected from this proposed action as the measures implemented by this final rule are not expected to harm or increase fishery interactions with endangered species or their habitat.

(6) Can the action be reasonably expected to result in cumulative adverse effects that could have a substantial effect on the target species or non-target species?

The proposed rule is not expected to result in cumulative adverse effects that could have a substantial effect on target or non-target species. As stated in Section 4.0, the catch level of target and non-target species will not be significantly impacted by this action.

(7) Can the action be reasonably expected to have a substantial impact on biodiversity and ecosystem function within the affected area (e.g., benthic productivity, predator-prey relationships, etc.)?

The action is not expected to have a substantial impact on biodiversity and ecosystem function within the affected area due to the scope of the measures and the degree of oversight in the action area. Section 4.0 discusses the impacts of all the measures and examines their expected impacts. This action would not result in the introduction of nonindigenous species.

(8) Are significant social or economic impacts interrelated with significant natural or physical environmental effects?

NOAA Fisheries has conducted a Regulatory Impact Review and determined that the economic impacts of these actions would be minimal. The preferred alternatives both add (A1 and D1) and take quota away (B1, C1, and E1). However, the net impact of the alternatives still results in a quota level that is greater than current catches. Because of restrictions already in place, NOAA Fisheries does not expect current catches to increase. Thus, the overall cumulative effects of this proposed rule are not significant.

(9) To what degree are the effects on the quality of the human environment expected to be highly controversial?

NOAA Fisheries does not believe that the proposed rule would have controversial effects on the human environment. NOAA Fisheries is accepting public comments on the proposed actions and will examine them for indications of harmful effects on the human environment.

12.0 LIST OF PREPARERS

This document was prepared by a team of individuals currently employed by the Office of Sustainable Fisheries of the National Marine Fisheries Service including:

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Individuals in other offices within NOAA contributed including the Office of Protected Resources and the Office of General Counsel.

13.0 LIST OF AGENCIES AND PERSONS CONSULTED

Discussions pertinent to formulation of the proposed action involved input from a variety of scientific and constituent interest groups including the U.S. delegation to ICCAT (including commercial and recreational fishermen, and environmental advocates), ICCAT's SCRS, ICCAT (35 member states), and staff from the International Fisheries Division of NOAA Fisheries and the NOAA's General Counsel for Fisheries. Letters were also sent to the consulting parties required in section 305 of the Magnuson-Stevens Act seeking their comments.

14.0 REFERENCES

Cramer, J. 2001. Large Pelagic Logbook Newsletter - 2000. NOAA Tech. Memo. NOAA Fisheries-SEFSC 471. 26 pp.

NOAA Fisheries. 1999. Fishery Management Plan for Atlantic Tunas, Swordfish, and Sharks. NOAA, DOC. Silver Spring, MD.

NOAA Fisheries. 2002a. Final Supplemental Environmental Impact Statement for Regulatory Amendment 2 to the Atlantic Tunas, Swordfish, and Sharks Fishery Management Plan: Final Rule to Reduce Sea Turtle Bycatch and Bycatch Mortality in Highly Migratory Species Fisheries.

NOAA Fisheries. 2002b. United States National Report to ICCAT, 2002.

NOAA Fisheries. 2003. Stock Assessment and Fishery Evaluation for Atlantic Highly Migratory Species. U.S. Department of Commerce, National Marine Fisheries Service, Silver Spring, MD.

SCRS. 1999. Detailed Report for Swordfish, ICCAT SCRS Swordfish Stock Assessment Session, October 9, 1999, 176 pp.

SCRS. 2002. Report of the Standing Committee on Research and Statistics, ICCAT SCRS, September 30 - October 4, 2002.