

FINAL

ENVIRONMENTAL ASSESSMENT

AND

REGULATORY IMPACT REVIEW

FOR A

FINAL RULE

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

November 2004

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

Final 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

- Final Actions:** Consistent with International Commission for the Conservation of Atlantic Tunas (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 metric tons (mt) whole weight (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:** Final Rule Documents: Environmental Assessment 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 ICCAT. These regulations will establish the annual quotas and other measures for North Atlantic swordfish starting with the 2003 fishing year, allow up to 200 mt 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. The draft EA was developed as an integrated document that included an Initial Regulatory Flexibility Analysis (IRFA) and a Regulatory Impact Review (RIR). This EA was developed as an integrated document that includes a Regulatory Impact Review (RIR). Copies of the final rule and the draft and Final EA's and RIR are available from NOAA Fisheries at the following address:

Highly Migratory Species Management Division, F/SF1
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1315 East-West Highway
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or

<http://www.nmfs.noaa.gov/sfa/hms>

The final action will:

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

National Oceanic and Atmospheric Administration Administrative Order 216-6 (NAO 216-6) (May 20, 1999) contains criteria for determining the significance of the impacts of a proposed action. In addition, the Council on Environmental Quality regulations at 40 C.F.R. §1508.27 state that the significance of an action should be analyzed both in terms of "context" and "intensity." Each criterion listed below is relevant to making a finding of no significant impact and has been considered individually, as well as in combination with the others. The significance of this action is analyzed based on the NAO 216-6 criteria and CEQ's context and intensity criteria. These include:

- (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 final 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 selected 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 selected 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 selected actions, and NOAA Fisheries has concluded that the selected 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?*

Several Biological Opinions (BiOps) have been issued under Section 7 of the Endangered Species Act for the HMS pelagic longline fishery including a June 1, 2004, BiOp. On July 6, 2004, NOAA Fisheries published a final rule (69 FR 40734) implementing, per the June 2004 BiOp, additional sea turtle bycatch and bycatch mortality mitigation measures for all Atlantic vessels with PLL gear onboard. The 2004 BiOp examined the proposed rule for this final rule and other proposed rules and found that the continued operation of the fishery was not likely to jeopardize the continued existence of loggerhead, green, hawksbill, Kemp's ridley, or olive

ridley sea turtles, but was likely to jeopardize the continued existence of leatherback sea turtles. The 2004 BiOp identified Reasonable and Prudent Alternatives (RPAs) necessary to avoid jeopardizing leatherbacks, and listed the Reasonable and Prudent Measures (RPMs) and terms and conditions necessary to authorize continued take as part of the revised incidental take statement. NOAA Fisheries is implementing the other RPMs in compliance with the BiOp. On August 12, 2004, NOAA Fisheries published an Advance Notice of Proposed Rulemaking (69 FR 49858) to request comments on potential regulatory changes to further reduce bycatch and bycatch mortality of sea turtles, as well as comments on the feasibility of framework mechanisms to address unanticipated increases in sea turtle interactions and mortalities, should they occur. NOAA Fisheries will undertake additional rulemaking and non-regulatory actions, as required, to implement any management measures that are required under the 2004 BiOp. This action is not expected to alter fishing practices or fishing effort significantly, and therefore should not have any further impacts not previously considered in the 2004 BiOp.

(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 final 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.

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

NOAA Fisheries has conducted an economic analysis, a Regulatory Impact Review, and at the proposed rule stage, an Initial Regulatory Flexibility Analysis, 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 final 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 final rule would have controversial effects on the human environment. NOAA Fisheries has received public comments on the selected actions and has responded to them in the final rule.

(10) *To what degree are the effects on the human environment likely to be highly uncertain or involve unique or unknown risks?*

This proposed action increases the North Atlantic swordfish quota and decreases the South Atlantic swordfish quota, which is not expected to alter historical fishing practices or techniques significantly. Therefore, no unknown or unique risks are involved.

(11) *Is the action related to other actions with individually insignificant, but cumulatively significant impacts?*

The overall quotas for the fishery are established by ICCAT and implemented domestically by NOAA Fisheries under the authority of the Atlantic Tunas Convention Act and the Magnuson-Stevens Act. There are not expected to be any significant cumulative impacts as a result of adjusting the overall quotas.

(12) *Is the proposed action likely to adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources.*

This final rule will not affect any of the sites or objects listed above.

(13) *Can the proposed action be reasonably expected to result in the introduction or spread of a non-indigenous species?*

No. This action applies to the domestic Atlantic swordfish fishery only, and does not involve the transport, introduction, or spread of any non-indigenous species.

(14) *Is the proposed action likely to establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration?*

This final rule is not likely to establish a precedent for future actions with significant effects or represent a decision in principle about a future consideration. This rule implements the ICCAT recommended quotas for 2003 to 2005.

(15) *Can the proposed action be reasonably expected to threaten a violation of Federal, State, or local law or requirements imposed for the protection of the environment?*

NOAA Fisheries has determined that these regulations would be implemented in a manner consistent with the Magnuson-Stevens Fishery Conservation and Management Act, the Marine Mammal Protection Act, the Endangered Species Act, and all other pertinent laws, and to the maximum extent practicable, with the enforceable policies of those coastal states on the Atlantic

including the Gulf of Mexico and Caribbean that have approved coastal zone management programs. Letters have been sent to the relevant states asking for their concurrence. All of the states that replied to the letter regarding compliance of the proposed rule with the Coastal Zone Management Act found NMFS' proposed actions to be consistent with their coastal zone management programs. NMFS presumes that the remaining states that did not respond also concur.

(16) *Can the proposed action be reasonably expected to result in beneficial impacts not otherwise identified and described above?*

Increasing the swordfish quotas could potentially have a positive impact on commercial fishermen if the additional quota were harvested.

In view of the information presented in this document and the analysis contained in the attached Environmental Assessment prepared to implement Atlantic swordfish quota recommendations from ICCAT, it is hereby determined that this action will not significantly impact the quality of the human environment as described above and in the Environmental Assessment. In addition, all impacts to potentially affected areas, including national, regional and local, have been addressed to reach the conclusion of no significant impacts. Accordingly, preparation of an EIS for this action is not necessary.

Approved: _____
William T. Hogarth, Ph.D.
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Date

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1.0 PURPOSE AND NEED FOR ACTION

1.1 Management History

The U.S. 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 United States is authorized under the ATCA to implement International Commission for the Conservation of Atlantic Tunas (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. No recommendations with regard to Atlantic swordfish quotas were made at the Regular Meeting in Dublin, Ireland during the fall 2003 meeting.

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)(NOAA Fisheries, 1999). 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 allow the stock to rebuild to maximum sustainable yield (MSY) by 2009. ICCAT recommended that the North Atlantic swordfish TAC be increased over the next few years. The rule accompanying this document implements the 2002 North Atlantic swordfish recommendations from ICCAT (Recommendation 02-2).

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. This document implements the resulting ICCAT 2002 South Atlantic swordfish recommendations (Recommendation 02-3).

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 fish 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).

Per the 2001 BiOp, the National Marine Fisheries Service (NOAA Fisheries) undertook a three year (2001- 2003 inclusive) research experiment in the NED closed area to develop or modify fishing gear and techniques to reduce sea turtle interactions and the mortality associated with such interactions, in accordance with the June 14, 2001, BiOp. Fishing activities for the experiment were permitted pursuant to Section 10 of the Endangered Species Act and covered by a separate incidental take statement (ITS). The program developed and verified circle hook and bait combinations (treatments) that reduce turtle interactions and/or associated mortality due to interactions, depending on species and treatment. NOAA Fisheries initiated rulemaking in November 2003, to consider additional bycatch and bycatch mortality reduction measures for the PLL fishery.

In December 2003, data from the Southeast Fishery Science Center (SEFSC) indicated that the Atlantic PLL fishery exceeded the ITS for leatherback sea turtles in 2001 and 2002 and for loggerhead sea turtles in 2002. NOAA Fisheries reinitiated consultation in January 2004, and issued a final supplemental environmental impact statement (FSEIS)(NOAA Fisheries, 2004) on June 22, 2004, and a final rule on July 6, 2004 (69 FR 40734). The FSEIS analyzed 18 alternatives, including treatments for both inside the NED and outside the NED, several closed area alternatives, a prohibition on PLL fishing, and an alternative including sea turtle release gears.

The final rule limits vessel operators participating in the Atlantic PLL fishery operating outside of the NED, at all times, to possessing onboard and/or using only 16/0 or larger non-offset circle hooks and/or 18/0 or larger circle hooks with an offset not to exceed 10 degrees. Only whole finfish and/or squid baits may be possessed and/or utilized with allowable hooks outside the NED. The final rule allows pelagic longline fishing in the NED closed area for vessels that comply with certain requirements. PLL vessels in the NED are limited, at all times, to possessing onboard and/or using only 18/0 or larger circle hooks with an offset not to exceed 10

degrees. Only whole Atlantic mackerel and/or squid baits may be possessed and/or utilized with these allowable hooks. Also, only hooks that have been offset by the manufacturer are allowed. The final rule also requires vessel operators onboard all federally permitted vessels, or those required to be permitted for Atlantic HMS with PLL gear onboard, to possess and maintain line cutters, dipnets, and dehooking devices meeting newly revised design and performance standards, and to possess, maintain, and utilize additional equipment in accordance with sea turtle handling protocols, in order to facilitate the removal of fishing gear from incidentally captured sea turtles. Because the removal of fishing gear is essential to reducing sea turtle mortalities, NOAA Fisheries has initiated a series of sea turtle dehooking workshops, established a point of contact to educate fishermen on the proper use of the sea turtle release equipment to remove gear, and has begun efforts to implement other elements of the BiOp as detailed in the FSEIS.

A BiOp issued on June 1, 2004, found that the continued operation of the fishery, taking the management actions implemented by the rule into consideration, was not likely to jeopardize the continued existence of loggerhead, green, hawksbill, Kemp's ridley, or olive ridley sea turtles, but is likely to jeopardize the continued existence of leatherback sea turtles. The 2004 BiOp identified the reasonable and prudent alternative (RPA) necessary to avoid jeopardizing leatherbacks, and listed the reasonable and prudent measures (RPMs) and terms and conditions necessary to authorize continued take as part of the revised ITS. The RPA includes: 1) maximization of PLL gear removal to maximize post-release survival of incidentally-captured sea turtles; 2) improve the accuracy and timeliness of sea turtle reporting and analysis; 3) confirm the effectiveness of hook and bait combinations; and, 4) take corrective action to prevent long-term elevated take and mortality.

NOAA Fisheries has undertaken other efforts to proceed with elements of the BiOp that do not require rulemaking, including improving monitoring, training, outreach, education, and planning research components. The Agency has developed and distributed a training video regarding release and disentanglement of sea turtles. The required release protocols document has been posted on the HMS website, and distributed to affected permit holders. The Agency has also begun efforts to produce and further distribute video tapes, and translated versions (Spanish and Vietnamese) of the release and disentanglement protocols. Finally, NOAA Fisheries has issued an Advanced Notice of Proposed Rulemaking (69 FR 49858, August 12, 2004) to request comments on potential changes to further reduce bycatch and bycatch mortality of sea turtles in the Atlantic PLL fishery if the number of sea turtle interactions or mortalities exceeds anticipated levels during a certain period of time.

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 (rec. 02-02 and 02-03) consistent with the HMS FMP, the Magnuson-Stevens Act, and other domestic regulations. In this EA/RIR, 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 selected alternatives are identified for which NOAA Fisheries

is publishing final regulations, in accordance with the National Environmental Policy Act and other applicable laws. These alternatives are selected 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.

References Cited in Chapter 1

NOAA Fisheries. 1999. Fishery Management Plan for Atlantic Tunas, Swordfish and Sharks. National Oceanic and Atmospheric Administration, National Marine Fisheries Service, Office of Sustainable Fisheries, Highly Migratory Species Management Division, Silver Spring, MD.

NOAA Fisheries. 2004. Final Supplemental Environmental Impact Statement. Reduction of sea turtle bycatch and bycatch mortality in the Atlantic pelagic longline fishery. NOAA, National Marine Fisheries Service, Office of Protected Resources, Endangered Species Division, Silver Spring, MD.

2.0 SUMMARY OF THE ALTERNATIVES

This section provides a summary and basis for all the alternatives considered in this rulemaking. The selected measures in this rulemaking are recommendations from the 2002 ICCAT meeting (rec. 02-02 and 02-03). Under ATCA and the Magnuson-Stevens Act, NOAA Fisheries is authorized 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

Selected Alternative

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

This alternative will set the U.S. North Atlantic swordfish quota at 3,877 metric tons (mt) whole weight (ww) (2,915 mt dressed weight (dw)) for the 2003 fishing year and at 3,907 mt ww (2,937.6 mt dw) for the 2004 and 2005 fishing years, not adjusted for underharvests (Table 2.1). The 2002 stock assessment estimated that the biomass of swordfish was approximately 94 percent of the biomass needed to produce maximum sustainable yield (MSY). Furthermore, the stock assessment estimated that increasing the TAC to 14,000 mt ww provides a greater than 50 percent chance that the stock will 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 percent of it to the United States after accounting for dead discards (100 mt ww) and allocations to “Other Contracting Parties” (1,185 mt dw).

Not Selected at this Time

Alternative A2: *No Action*

This alternative would maintain the status quo quota arrangement and would not increase the U.S. 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 the 1999 finding 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

Selected Alternative

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

This alternative will set the South Atlantic swordfish quota at 100 mt ww (75.2 mt dw) for the 2003 to 2005 fishing years, not adjusted for underharvests (Table 2.2), 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 U.S. was allocated approximately 2.5 percent of the TAC (384 mt ww) in 2002, but the U.S. share was decreased to 100 mt ww in 2003 to 2005 by ICCAT 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 that 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

Selected Alternative

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

This alternative will 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 U.S. is allocated 80 percent of this amount. Because ICCAT expects the amount of dead discards to be limited in all impacted fisheries by 2004, the recommendation reduced the allowance to zero in 2004 and beyond.

Not Selected at this Time

Alternative C2: *No Action*

This alternative would maintain the status quo of no 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 percent. 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

Selected 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 will 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. The majority of the U.S. longline effort in the South Atlantic takes place between 5 degrees N. and 5 degrees S. (Figure 2.1). Under the status quo, any swordfish harvested in this area would be counted against the South Atlantic quota. However, this alternative allows the swordfish to be counted against the North Atlantic quota and therefore serves to increase the amount of South Atlantic swordfish that can be potentially harvested by 200 mt ww.

For example, if the South Atlantic swordfish quota were 100 mt dw, and 50 mt dw were landed between 5 degrees North and 5 degrees South latitude, and 75 mt dw were caught south of 5 degrees South latitude, then 25 mt dw of the swordfish caught between 5 degrees North and 5 degrees South latitude would be applied against the North Atlantic swordfish quota. If only 25 mt dw of swordfish were caught between 5 degrees North and 5 degrees South latitude, and 150 mt dw of swordfish were caught south 5 degrees South latitude, 25 mt dw would be applied against the North Atlantic swordfish quota. The remaining 50 mt dw overharvest would be counted against the following year's South Atlantic swordfish quota.

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 (Alternative B1).

2.5 Transfer North Atlantic Swordfish Quota to Canada

Selected Alternative

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

This alternative will transfer 25 mt ww (18.8 mt dw) of North Atlantic swordfish quota each year to Canada from 2003 to 2005. NOAA Fisheries will 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. Under this alternative, by the end of 2005, 110 mt ww (82.7 mt dw) will remain 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. Under this alternative, the reserve quota category would remain at 185 mt ww (139.1 mt dw).

Table 2.1. North Atlantic Swordfish Quotas (in mt dw) from 2000-2004.

		2000	2001	2002	2003	2004
Base Landings Quota		2,219.0	2,219.0	2,219.0	2,915	2,937.6
Quota Carried Over		0.0	+549.8 ¹ (from 1999)	+1,144.5 ⁴ (from 2000 and 2001)	+1,348.6 (from 2001 and 2002 ⁵)	+2,517.8 (from 2003)
Total Quota		2,219.0	2,768.8	3,363.5	4,263.6	5,455.4
Allocated Quota	Directed Category	1,919.0	2,168.0	2,924.4	3,824.5	5,035.1
	Incidental Category	300.0	300.0 ²	300.0	300.0	300.0
	Reserve Category	0.0	300.8	139.1	139.1	120.3
Utilized Quota	Landings	2,017.9	1,581.7	1,747.2	1,509	TBD
	Transfer	--	161.7 ³	--	18.8 ⁶	18.8
Total Underharvest		201.1	1,025.4	1,616.3	2,735.8	TBD
Dead Discards	Allowance	240.0	180.4	120.3	60	0
	Actual harvest	322.0	306.8	261.6	278.0	TBD
	Overharvest	-82.0	-126.4	-141.3	-218.0	TBD
Carryover Available		119.1	899.0	1,475.0	2,517.8	TBD

¹ Carryover from 1999 was applied to 2001 because 2000 fishing year had ended (see 66 FR 46402, 9/5/01).

² Initial adjustment placed 600.8 mt dw in incidental category (see 66 FR 46402, 9/5/01). Subsequently, 300.8 mt dw were placed in the reserve category (see 67 FR 70023, 11/20/02).

³ Amount transferred to account for excess dead discards in Japanese bigeye tuna fishery (68 FR 14167, 03/24/03)

⁴ Carryover from 2000 combined with 2001 and applied to 2002 (68 FR 14167, 03/24/03; Correction 68 FR 16216, 4/03/03), does not include dead discards from 2001 because they were not available at time quotas were established.

⁵ Dead discards from 2001 were not available at the time 2002 quotas were established, so they have to be subtracted from 2003

⁶ Transfer of 25 mt ww (18.8 mt dw) to Canada in 2003, 2004, and 2005

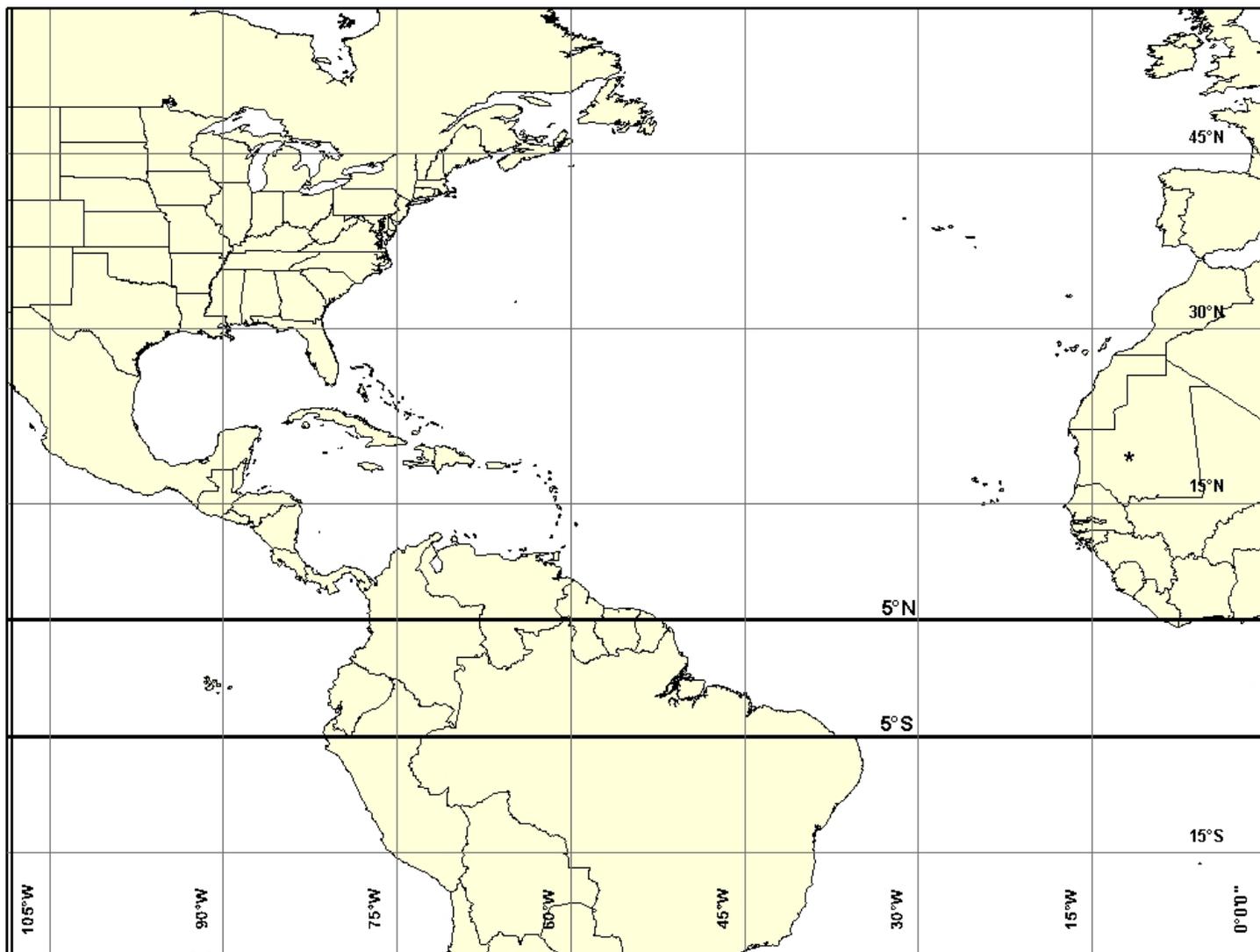
Table 2.2 South Atlantic Swordfish Quota (in mt dw) from 2000-2004.

	2000	2001	2002	2003	2004
Base Landings Quota	289	289	289	75.2	75.2
Quota Carried Over	0	0	0	195.2 ¹	259.1
Total Quota	289	289	289	270.4	334.3
Landings	93.8	69.8	15.3	11.3	TBD
Underharvest	195.2 ¹	219.2 ²	273.7 ²	259.1	TBD

¹ ICCAT recommended that underharvests from 2000 be carried over to 2003 (68 FR 14167, 3/24/03)

² Underharvest from 2001 and 2002 not eligible for carryover (68 FR 14167, 3/24/03)

Figure 2.1. Swordfish management areas, including area bounded by 5 degrees N and 5 degree S latitude where an additional 200 mt dw swordfish harvested may be counted against the North Atlantic quota. The management area for North Atlantic swordfish is north of 5 degrees N. latitude, and the management area for South Atlantic swordfish is south of 5 degrees N. latitude.



3.0 DESCRIPTION OF AFFECTED ENVIRONMENT

Pelagic longline fishermen encounter many species of fish. Some of those captured are marketable and 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, including 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 Management 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, 2003a).

3.1 Status of the Stocks

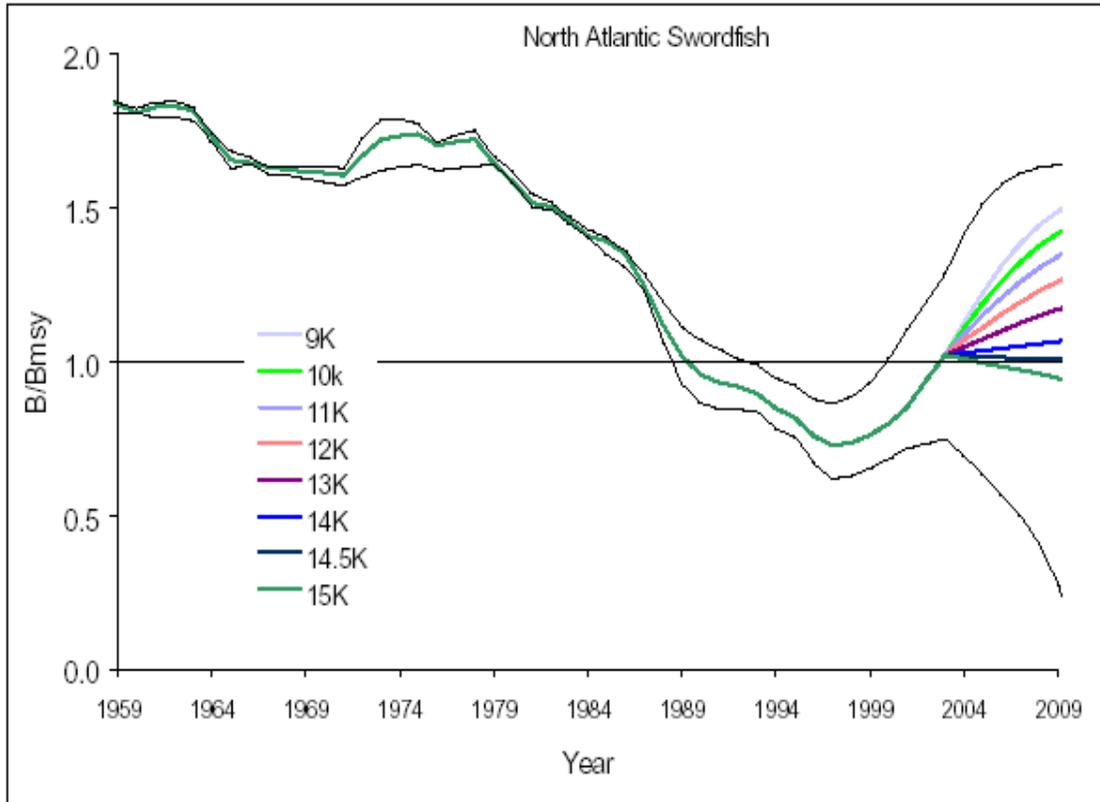
North Atlantic Swordfish

The two distinct management units for swordfish in the Atlantic Ocean, north and south, are divided at 5 degrees N. latitude (Figure 2.1). 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 Standing Committee on Research and Statistics (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 percent of the biomass needed to produce MSY. The SCRS felt that there was a greater than 50 percent 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

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. As such, SCRS considers South Atlantic swordfish to be fully fished and notes that overfishing may be occurring. 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.

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



Status of Non-Target Finfish

While swordfish are caught with other gear, this rulemaking predominantly affects pelagic longline vessels. 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 pelagic 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 2004 SAFE Report (NOAA Fisheries, 2004). 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 2004b). The most recent longline bycatch data are available from the 2001 U.S. National Report to ICCAT and the 2003 SAFE Report (NOAA Fisheries, 2003a).

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, 2003a).

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 30.49 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 two 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.”

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. Pelagic 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), gear requirements, and a fishing year that begins on June 1 each year. 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 3.1). 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, 2003a.

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
October 2003	206	99	95	400

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, 2003a).

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 required to be reported, are limited to trip limits, and 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, 2003a).

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 offshore in deep water, so there is no interaction with bottom substrate or other essential fish habitat.

3.4 Protected Species

In December 2003, data from the SEFSC indicated that the Atlantic PLL fishery had exceeded the ITS for leatherback sea turtles in 2001- 2002 and for loggerhead sea turtles in 2002. NOAA Fisheries reinitiated consultation in January 2004, and issued a BiOp on June 1, 2004, a FSEIS on June 22, 2004, and a final rule for that FSEIS on July 6, 2004 (69 FR 40734). The BiOp concluded that the final rule for the FSEIS limits vessel operators participating in the Atlantic PLL fishery operating outside of the NED, at all times, to possessing onboard and/or using only 16/0 or larger non-offset circle hooks and/or 18/0 or larger circle hooks with an offset not to exceed 10 degrees. Only whole finfish and/or squid baits may be possessed and/or utilized with allowable hooks outside the NED. The final rule also implemented various management measures described in Section 1.1 to reduce sea turtle bycatch and bycatch mortality. The proposed rule related to this action was considered in the 2004 BiOp. For more information, see the BiOp or the FSEIS.

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 July 15, 2003 (68 FR 41725), 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.

References Cited in Chapter 3

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

NOAA Fisheries. 2003a. Stock Assessment and Fishery Evaluation for Atlantic Highly Migratory Species. U.S. Department of Commerce, National Marine Fisheries Service, Silver Spring, MD. January 2003. 264 pp.

NOAA Fisheries. 2004a. Stock Assessment and Fishery Evaluation (SAFE) Report, NOAA, National Marine Fisheries Service, Office of Sustainable Fisheries, Silver Spring, MD. 67 pp.

NOAA Fisheries. 2004b. Final Supplemental Environmental Impact Statement. Reduction of sea turtle bycatch and bycatch mortality in the Atlantic pelagic longline fishery. NOAA, National Marine Fisheries Service, Office of Protected Resources, Endangered Species Division, Silver Spring, MD.

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

4.0 ENVIRONMENTAL CONSEQUENCES OF ALTERNATIVES CONSIDERED

NOAA Fisheries is authorized to implement ICCAT recommendations under ATCA, if the United States accepts those recommendations. The selected alternatives discussed below would satisfy the purpose and need for this action, as discussed in Section 1.2. The selected alternatives are also consistent with the goals of the HMS FMP and the Magnuson-Stevens Act, specifically, to prevent overfishing and rebuild overfished fisheries. The environmental, social, and economic consequences of these selected alternatives are described below and in Sections 6.0 and 7.0.

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 (selected)

A2: No Action

Ecological Impacts

NOAA Fisheries does not expect adverse ecological impacts from the implementation of alternative A1. 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 result in a greater than 50 percent probability that the stock will rebuild to MSY by 2009. 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 (2,937.6 mt dw) in 2004 and 2005 is a component of that increase.

The ecological impacts of alternative A1 will vary depending on the fishing effort of the U.S. 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/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, and recent gear regulations, 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 could 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 and is actively working with fishermen to develop and improve the use of techniques that would reduce interactions with protected species.

There were interactions with an estimated 312 loggerhead and 1,208 leatherback sea turtles in 2001 and 575 loggerhead and 962 leatherback sea turtles in 2002. 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. As stated above, NOAA Fisheries does not expect the levels of incidental take to increase in the short term because an increase in fishing effort is unlikely and because NOAA Fisheries has implemented new fishing gear requirements and techniques that should reduce interactions and mortality rates with protected species.

The increased quota could potentially lead to an increase in recreational fishing effort for swordfish. This fishery has a relatively small amount of annual catch (under 6 mt dw in the 1999 to 2001 fishing years). This component of the swordfish fishery is managed via the incidental category, with permits, size and bag limits, and reporting requirements. 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. Due to these regulations, 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. In addition, NOAA Fisheries expects to examine the in-season adjustment authority regarding the recreational swordfish fishery in Amendment 2 to the HMS FMP. Modifying the in-season authority could allow the agency to make in-season adjustments to this fishery as necessary. These actions could allow NOAA Fisheries to more efficiently monitor the recreational swordfish fishery and better respond to management needs.

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 could lose its allocation in future ICCAT meetings. If this occurred, other countries, many of which have less stringent environmental regulations, would receive an increase their 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 (2,937.6 mt dw) in 2004 and 2005 (A1) compared to taking no action (A2). There is a chance that the economic benefits from the selected action could increase slightly due to the greater ability to harvest more swordfish. Based on the 2002 ex-vessel swordfish price of \$3.19 per pound, the increase, if fully harvested, would be worth about \$4.9 million in 2003 [(2,915 mt dw - 2,219 mt dw)*2204.6*\$3.19] and \$5.1 million in 2004 and 2005 [(2,937.6 mt dw - 2,219 mt dw)*2204.6*\$3.19]. However, based on the underharvests of the past several years (1,444.5 mt dw from the 2000 and 2001 fishing years; 1,616.3 mt dw in 2002; and 2,800.3 mt dw in 2003), 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* (selected)

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 implemented 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 2000 through 2003 were below the 100 mt ww quota (93.8, 69.8, 15.3, and 11.3 mt ww, respectively) (Table 2.2). NOAA Fisheries anticipates no adverse effects on sea turtles, marine mammals, or seabirds, because the quota is smaller than previous years' quota, even taking into consideration preferred alternative D1 which would allow up to 200 mt dw of the U.S. North Atlantic swordfish quota to be harvested in the area between 5 degrees North and 5 degrees South latitude. Moreover, 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 did not see an increase in 2002 or 2003, and 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 2002 ex-vessel swordfish price of \$3.19 per pound, the decrease would be worth approximately \$1.5 million $[(289 \text{ mt dw} - 75.2 \text{ mt dw}) * 2204.6 * \$3.19]$. 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. Allowing an additional 200 mt ww of North Atlantic swordfish to be harvested from between 5 degrees North and 5 degrees South, as described in alternative D1, will help to offset any loss incurred as a result of the decrease in South Atlantic swordfish quota, particularly if fishing effort increases.

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* (selected)

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 counted towards 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. U.S. dead discard were estimated to be 428.3 mt ww in 2000, 291.4 mt ww in 2001, and 260 mt ww in 2002 (NOAA Fisheries 2003b). A final rule promulgated on August 1, 2000, (65 FR 47214) implemented time/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, 2003a). 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 without the allowance.

Alternative C2, maintaining the status quo, would not be expected to have any ecological impacts because it does 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. That amount of quota would be worth approximately \$423,000 (60.2 mt dw * 2204.6 lbs/mt * \$3.19 per lb) using the 2002 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 (selected)*

D2: No Action

Ecological Impacts

NOAA Fisheries does not expect any significant ecological impacts from the implementation of the selected 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 (150.4 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 rulemaking (384 mt ww). Based on underharvests in recent years, neither the North nor the South Atlantic quotas have 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 (alternative B1). 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 alternative to negatively impact participants in the pelagic longline fishery, and could in fact have positive consequences by maintaining South Atlantic swordfish quotas at historical levels. Currently, the majority of the U.S. fishing effort in the South Atlantic Ocean is within 5 degrees North and 5 degrees South latitude. Increasing the amount of swordfish that may be harvested from this area could result in an increase in revenue of approximately \$1.06 million (150.4 mt dw * 2204.6 lbs/mt * \$3.19) compared to alternative D2. If the level of effort expands in this area due to vessels shifting away from the time/area closures implemented off the U.S. East Coast and in the Gulf of Mexico, the selected 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) (alternative B1), fishing in the area established by alternative D1 could allow the harvest of an additional 200 mt ww (150.4 mt dw) of swordfish that could be applied against the North Atlantic swordfish quota. If catches and effort in the South Atlantic area increase, the 100 mt ww quota established 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 North 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* (selected)

E2: No Action

Ecological Impacts

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 \$132,000 per year (18.8 mt dw * 2204.6 lbs/mt dw * \$3.19 per pound). The pelagic longline fishery could keep this amount if alternative E2 were 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 not 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 selected actions are not expected to change fishing practices or effort, this final 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 selected 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 final rule 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 selected 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 any of the preceding Biological Opinions, including the June, 2004, BiOp. Similarly, the selected 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 final actions in this document would not have any effects on human health. Additionally, the final 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 determined that the final 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 were submitted to the responsible state agencies for their review under Section 307 of the Coastal Zone Management Act. Ten of the eleven states that responded found NOAA Fisheries' proposed actions to be consistent with their coastal zone management programs. Two states requested extensions and one has not yet replied. Concurrence of the states that have not responded is presumed.

4.11 Comparison of Alternatives

Table 4.1 Comparison of Selected 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 preceding sections for details of the impacts of each alternative.

Management Measure	Ecological Impacts	Economic Impacts	Social Impacts
A1: Selected	-	+	0
A2	-	0	0
B1: Selected	+	-	-
B2	-	0	0
C1: Selected	0	+	+
C2	0	0	0
D1: Selected	0	+/-	+/-
D2	+	-	0
E1: Selected	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 1 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 three supplemental environmental impact statements that affect the swordfish pelagic longline fishery. 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 NED area to pelagic longline vessels, were expected to have negative direct, indirect, and cumulative economic and social impacts on pelagic longline fishermen, which were 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 major impacts.

A third supplemental environmental impact statement, published in June 2004, implemented additional measures, based on results of the NED experiment, aimed at reducing sea turtle bycatch and bycatch mortality. The economic impacts of the bycatch and bycatch mortality reduction measures were anticipated to result in either positive or negative economic impacts to the fishery as a whole, many of which could be substantial for small entities/vessel owners. Although negative economic impacts could result, NOAA Fisheries anticipates that fishermen will select and utilize hook and bait combinations that will maximize their economic returns. The final management measures attempt to mitigate possible economic impacts by providing flexibility to select, possess, and employ specific hooks and baits, effective at capturing a variety of target species (depending upon availability or market conditions) during a trip. The requirement to purchase sea turtle release equipment could have relatively minor short-term adverse economic impacts stemming from equipment purchases. Adverse economic impacts stemming from the initial compliance costs would likely be mitigated by potential long-term gains in hook retention and increases operating efficiency. However, if fishing efficiency is lost due to a slowing of fishing operations, potential gains may be smaller than anticipated or not realized.

As discussed in Section 1 of this document, the selected 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, the July 2002 and July 2004 rules implementing the BiOp measures, NOAA Fisheries expects no adverse cumulative impacts in the short-term from this final 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, the selected actions are not expected to change current fishing practices or effort, or cause significant ecological, economic, and social impacts. Additionally, given current regulations, NOAA Fisheries does not expect effort to increase in the foreseeable future. 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 selected 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.

References Cited in Chapter 4

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

5.0 MITIGATION AND UNAVOIDABLE ADVERSE IMPACTS

5.1 Mitigating Measures

NOAA Fisheries does not expect any of the selected 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.

5.2 Unavoidable Adverse Impacts

The selected 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 Irrecoverable Commitment of Resources

The selected 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 selected 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 implementing 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 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 2003, there were approximately 206 fishermen with a directed swordfish limited access permit, 99 fishermen with an incidental swordfish limited access permit, and 95 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 2002.

Because the commercial handgear fishery (troll, handline, and harpoon) landed only 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, updated from NOAA Fisheries, 2004b.

Year	Number of active vessels	Year	Number of active vessels
1990	416	1997	350
1991	333	1998	286
1992	337	1999	224
1993	434	2000	199
1994	501	2001	161
1995	489	2002	148
1996	367		

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 numbers of fish landed as reported in 2002 pelagic longline logbooks (Table 6.2) and the average weight per fish (Table 6.3), NOAA Fisheries calculated 2002 landings, by weight (Table 6.4). Then, using 2002 ex-vessel prices for Atlantic HMS (Table 6.5), NOAA Fisheries calculated the annual overall gross revenue of the pelagic longline fleet. The annual gross revenue estimate was then divided by the 148 active vessels reporting landings to derive an average annual gross revenue per vessel. These calculations indicate an overall 2002 annual gross revenue estimate for the pelagic longline fleet of approximately \$26.4 million (Table 6.6). The average pelagic longline vessel is estimated to produce annual gross revenues of approximately \$178,618.58 in 2002. This value is a fleet-wide estimate for all Atlantic HMS vessels reporting landings. Most of these gross revenues were derived from swordfish and yellowfin tuna landings (Table 6.7).

Table 6.2 2002 PLL Landings (numbers of fish) by Statistical Region. Source: Pelagic Longline Logbook data maintained by the Southeast Fisheries Science Center. CAR: Caribbean, GOM: Gulf of Mexico, FEC: Florida east coast, SAB: South Atlantic Bight, MAB: mid-Atlantic Bight, NEC: Northeast Coastal, NED: Northeast Distant, SAR: Sargasso, NCA: North Central Atlantic, TUN: tuna north, TUS: tuna south

	SWO	BFT	Pel	LCS	BET	YFT	ALB	SKJ
CAR	4084	0	24	1	262	154	66	0
FEC	3344	16	73	29	3259	1550	946	0
GOM	8356	101	112	148	715	44207	239	57
MAB	6064	8	1914	2318	3890	7441	3159	13
NCA	2724	1	38	0	822	386	563	0
NEC	4612	10	417	13	1225	3429	1000	0
NED	8649	34	240	0	1173	19	282	0
OTH	47	0	3	0	1	36	0	0
SAB	8488	1	106	1567	40	1599	42	0
SAR	1236	7	18	1	336	81	229	0
TUN	761	0	37	0	1490	277	220	0
TUS	995	0	15	0	618	249	29	0

Table 6.3 The 1998 Average Ex-vessel Weight (lb dw) Used to Estimate 2002 Landings by Weight. Data reported to the Southeast Fisheries Science Center

Species	Avg Weight (lb dw)
Swordfish	71.77
Bluefin Tuna	606.69
Yellowfin Tuna	60.29
Bigeye Tuna	67.64
Other Tunas	31.06
Large Coastal Sharks	40.36
Other Sharks	90.82
Other Fish	24.58

Table 6.4 2002 PLL Landings (lbs dw) by Statistical Region. Source: Pelagic Longline Logbook data

maintained by the Southeast Fisheries Science Center. CAR: Caribbean, GOM: Gulf of Mexico, FEC: Florida east coast, SAB: South Atlantic Bight, MAB: mid-Atlantic Bight, NEC: Northeast Coastal, NED: Northeast Distant, SAR: Sargasso, NCA: North Central Atlantic, TUN: tuna north, TUS: tuna south

	SWO	BFT	Pelagic Sharks	LCS	BET	YFT	ALB	SKJ	Total
CAR	293,109	0	2,180	40	17,722	9,285	2,050	0	324,386
FEC	239,999	9,707	6,630	1,170	220,439	93,449	29,383	0	600,777
GOM	599,710	61,276	10,172	5,973	48,363	2,665,240	7,423	1,770	3,399,927
MAB	435,213	4,854	173,829	93,554	263,120	448,618	98,119	404	1,517,711
NCA	195,501	607	3,451	0	55,600	23,272	17,487	0	295,918
NEC	331,003	6067	37,872	525	82,859	206,734	31,060	0	696,120
NED	620,739	20,627	21,797	0	79,342	1,146	8,759	0	752,410
OTH	3,373	0	272	0	68	2,170	0	0	5,883
SAB	609,184	607	9,627	63,244	2,706	96,404	1,305	0	783,077
SAR	88,708	4,247	1,635	40	22,727	4,883	7,113	0	129,353
TUN	54,617	0	3,360	0	100,784	16,700	6,833	0	182,294
TUS	71,411	0	1,362	0	41,801	15,012	901	0	130,487
Total	3,542,567	107,992	272,187	164,546	935,531	3,582,913	210,433	2,174	8,818,343

Table 6.5 Average Ex-vessel Prices per lb dw for Atlantic HMS in 2002. Source: NOAA Fisheries, 2004; Dealer weigh-out slips from the Southeast Fisheries Science Center and Northeast Fisheries Science Center, and bluefin tuna dealer reports from the Northeast Regional Office.

Species	Average for Gulf of Mexico only	Average for S. Atlantic region only	Average for Mid-Atlantic region only	Average for N. Atlantic region only	Average across all Regions
Bigeye tuna	\$4.33	\$2.45	\$3.81	\$4.02	\$3.65
Bluefin tuna	\$5.56	\$3.77	\$4.70	\$7.30	\$5.33
Yellowfin tuna	\$3.23	\$1.73	\$2.02	\$2.90	\$2.47
Other tunas	\$0.84	\$0.49	\$0.73	\$1.17	\$0.81
Swordfish	\$2.91	\$3.14	\$3.24	\$3.47	\$3.19
Large coastal sharks	\$0.35	\$1.27	\$1.56	\$0.79	\$0.99
Pelagic sharks	\$1.11	\$0.66	\$1.17	\$1.00	\$0.99
Small coastal sharks	\$0.48	\$0.53	\$0.48	\$0.58	\$0.52
Shark fins	\$22.64	\$17.09	-	-	\$19.87

Table 6.6 2002 Gross Revenues (\$) by Statistical Region. Source: Landings to derive dollar values are from the Pelagic Longline Logbook data maintained by the Southeast Fisheries Science Center. CAR: Caribbean, GOM: Gulf of Mexico, FEC: Florida east coast, SAB: South Atlantic Bight, MAB: mid-Atlantic Bight, NEC: Northeast Coastal, NED: Northeast Distant, SAR: Sargasso, NCA: North Central Atlantic, TUN: tuna north, TUS: tuna south

	SWO	BFT	Pelagic Sharks	LCS	BET	YFT	ALB	SKJ	Total
CAR	921,008	0	1,450	50	43,492	16,078	1,011	0	983,089
FEC	754,125	36,624	4,409	1,490	540,985	161,821	14,490	0	1,513,944
GOM	1,746,861	340,811	11,315	2,124	209,647	8,619,240	6,214	873	10,937,086
MAB	1,412,446	22,822	203,333	145,909	1,004,805	905,468	72,014	200	3,766,997
NCA	614,304	2,290	2,296	0	136,450	40,299	8,623	0	804,261
NEC	1,150,159	44,351	37,785	404	333,547	599,813	36,331	0	2,202,360
NED	2,156,925	150,681	21,747	0	319,369	3,324	10,245	0	2,662,292
OTH	10,599	0	181	0	167	3,758	0	0	14,705
SAB	1,914,179	2,290	6,404	80,506	6,640	166,938	643	0	2,177,600
SAR	278,738	16,024	1,087	50	55,775	8,455	3,508	0	363,639
TUN	189,782	0	3,352	0	405,679	48,453	7,993	0	655,259
TUS	224,388	0	906	0	102,585	25,995	444	0	354,318
Total	11,373,514	615,863	294,265	230,533	3,159,141	10,599,643	161,517	1,072	26,435,550

Table 6.7 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
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 6.3 of the FSEIS Reduction of Sea Turtle Bycatch and Bycatch Mortality in the Atlantic Pelagic Longline Fishery (NOAA Fisheries, 2004). 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

Alternative A1 increases the annual North Atlantic swordfish 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 \$4.9 million in 2003 and \$5.1 million in 2004 and 2005, based on the 2002 ex-vessel swordfish price of \$3.19 per pound. This represents a revenue increase of about 31 percent over the no action alternative (assuming the quota is fully harvested) in 2003 and an increase of 32 percent over the no action alternative in 2004. However, given that the pelagic longline fleet will likely not catch that amount, due to the current level of effort and recent underharvests of 201.1 mt dw in 2000, 1,025.4 mt dw in 2001, 1,616.3 mt dw in 2002, and 2,735.8 mt dw in 2003, 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.

Alternative B1, 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 \$1.5 million. This represents a revenue decrease of about 74 percent 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, and because of the adjustment to the North Atlantic swordfish catch area (Alternative D1). The total ex-vessel value of South Atlantic swordfish under the established quota would be about \$528,000. The South Atlantic swordfish landings from the directed fishery in the 2000 through 2003 fishing years were reported to be 93.8 mt dw, 69.8 mt dw, 15.3 mt dw, and 11.3 mt dw, respectively. For the past several years, the annual quota of 384 mt ww (289.0 mt dw), has not been harvested. Additionally, the selected alternative (D1) of allowing up to 200 mt ww of swordfish harvested between 5 degrees North and 5 degrees South latitude could alleviate impacts of the quota reduction.

Alternative C1 establishes a dead discard allowance of 80 mt ww (60.2 mt dw) in 2003 and 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 potentially 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 \$423,000. 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 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 (alternative D1). 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 \$1.06 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 (\$132,000 per year through 2005). However, given the current amount of underharvests, NOAA Fisheries expects the quota transfer to have negligible economic impacts. 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, given 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 selected alternatives together, NOAA Fisheries does not expect significant positive or negative economic impacts. Currently, the United States does not catch its entire quota. The selected alternatives both add (A1 and C1) and take quota away (B1 and E1). Table 6.8 demonstrates the amount of quota being increased or decreased according to each ocean basin. The net impact of the alternatives results in a quota level that is greater than current catches. Because of restrictions already in place, NOAA Fisheries does not expect current effort to increase. Thus, the overall economic impact will be minimal.

Table 6.8 Quota measures discussed in the Final Rule. These quota amounts are subject to adjustment based upon underharvest or overharvest in prior years. Quota weight is given in metric tons whole weight.

Ocean	Alternative	Status Quo	Preferred Alternatives			
		2003	2003	2004	2005	2006
North Atlantic	A	2,951	3,877	3,907	3,907	*
	C	0	80	0	0	0
	D	0	- 200	- 200	- 200	- 200
	E	0	- 25	- 25	- 25	*
	Total	2,951	3,732	3,682	3,682	NA
South Atlantic	B	384	100	100	100	120
	D	0	200	200	200	200
	Total	384	300	300	300	320

* ICCAT has not established these values yet.

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 selected 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 is unlikely given current regulations. 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 Selected	<i>Long-term:</i> Could increase ex-vessel gross revenue by about \$4.9 million if the pelagic longline fleet increases effort and harvests entire quota. Increase in effort could benefit dealers and suppliers. <i>Short-term:</i> None expected.	<i>Long-term:</i> If fishermen decide to increase effort, individuals could have additional costs from gear, fuel, groceries, etc. <i>Short-term:</i> None expected.
A2: No Action	<i>Long-term:</i> None. <i>Short-term:</i> None.	<i>Long-term:</i> Potentially lose quota allocation from ICCAT which limits potential to increase revenue. <i>Short-term:</i> None.
B1: Adjust the Annual South Atlantic Swordfish Quota Selected	<i>Long-term:</i> If stock levels sustained or increased, fishery could experience increased landings. <i>Short-term:</i> None expected.	<i>Long-term:</i> Could limit catch and gross revenue if effort level in fishery increases. <i>Short-term:</i> Minimal.
B2: No Action	<i>Long-term:</i> Could allow fishing effort to increase generating more revenue for participating vessels. <i>Short-term:</i> None.	<i>Long-term:</i> If stock levels decrease and become overfished, fishery could become less efficient and landings levels could be limited. <i>Short-term:</i> Minimal.
C1: Establish a 2003 dead discard allowance of 80 mt ww and 0 mt ww in 2004 and beyond Selected	<i>Long-term:</i> None. <i>Short-term:</i> Allows up to 80 mt ww of dead discards to be counted against Atlantic TAC, not US quota. Potentially saves US fishermen \$562,000.	<i>Long-term:</i> If dead discards are not reduced, then US quota is impacted which limits potential revenue. <i>Short-term:</i> None.
C2: No Action	<i>Long-term:</i> None. <i>Short-term:</i> None.	<i>Long-term:</i> Minimal. <i>Short-term:</i> 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 Selected	<i>Long-term:</i> 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. <i>Short-term:</i> Minimal, unless 100 mt ww quota is exceeded.	<i>Long-term:</i> 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. <i>Short-term:</i> Minimal.
D2: No Action	<i>Long-term:</i> None. <i>Short-term:</i> None.	<i>Long-term:</i> Could limit effort and revenue in South Atlantic swordfish fishery. <i>Short-term:</i> Minimal.
E1: Transfer 25 mt ww of North Atlantic swordfish quota to Canada Selected	<i>Long-term:</i> None. <i>Short-term:</i> None.	<i>Long-term:</i> If the US fishermen fully utilize quota, could reduce gross revenues by \$155,000. <i>Short-term:</i> Minimal.

Management Measure	Net Economic Benefits	Net Economic Costs
E2: No Action	<i>Long-term:</i> Could allow US fishermen an additional 25 mt ww of swordfish catch. <i>Short-term:</i> None.	<i>Long-term:</i> Minimal. <i>Short-term:</i> 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 selected actions described in this document and in the final rule do not meet the above criteria. Therefore, under E.O. 12866, the final rule is not a significant regulatory action.

8.0 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 be 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 selected actions will be minor in all of these communities.

As mentioned in previous sections, the selected alternatives are expected to have little economic impact on the fishery and the dependent communities. Additionally, the selected alternatives are not expected to have significant social impacts. None of the alternatives drastically modify the fishery as it currently 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 a vessel makes 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 final regulations. Alternative C1 will 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, could 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 expected to have a negative social impact.

9.0 OTHER CONSIDERATIONS

9.1 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 final 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 selected 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 selected 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 selected measures would ensure that bycatch is accounted for in the Atlantic swordfish fisheries and that NOAA Fisheries has considered the impact of the selected actions on protected species (NS 9). Finally, this final rule would not require fishermen to fish in an unsafe manner (NS 10).

9.2 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.

9.3 State Jurisdiction Pertaining to Atlantic Tunas Convention Act

NOAA Fisheries does not feel that these final regulations would interfere with the jurisdiction of any of the relevant states.

9.4 Federalism

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

10.0 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.

11.0 LIST OF AGENCIES AND PERSONS CONSULTED

Discussions pertinent to formulation of the 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. During the public comment period, three public hearings were held and several written comments were received.

12.0 REFERENCES

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- 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.
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- NOAA Fisheries. 2004b. Final Supplemental Environmental Impact Statement. Reduction of sea turtle bycatch and bycatch mortality in the Atlantic pelagic longline fishery. NOAA, National Marine Fisheries Service, Office of Protected Resources, Endangered Species Division, 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.

APPENDIX A COMMENTS AND RESPONSES

NOAA Fisheries held three public hearings in July and August 2003 in Gloucester, MA; Madeira Beach, FL; and Silver Spring, MD. Comments were received from fishery participants and other members of the public regarding the proposed regulations. In addition, written comments were submitted to NOAA Fisheries during the 45-day comment period. The major comments are summarized here together with responses.

North Atlantic Swordfish Quota

Comment 1: One commenter supports opportunities for U.S. fishermen to land more swordfish as long as it is done in a manner that does not compromise the full rebuilding of the population and long-term sustainability of the resource.

Response: NMFS agrees that ensuring sustainability and rebuilding the population are important aspects of providing long term opportunities for fishermen to harvest the resource. The selected alternatives are consistent with the objectives of the ICCAT rebuilding program, Magnuson-Stevens Act, ATCA, and the HMS FMP and will ensure the sustainability of the stock.

Comment 2: To facilitate harvest of the United States allocated quota, the United States should make a limited number of new handgear permits available for distribution.

Response: That is one option available for addressing the underharvest occurring in recent years. NMFS solicited comments regarding this and other options during the scoping process for Amendment 2 to the HMS FMP and may consider those options in Amendment 2 or other future rulemaking.

Comment 3: If the United States is unable to catch its quota, there will be efforts by other ICCAT countries to permanently reduce the U.S. quota share and allocate that quota to other fishing nations. This will have conservation ramifications given that U.S. fisheries are better managed than fisheries in other ICCAT nations.

Response: This rule implements recommendations agreed to at the 2002 meeting of ICCAT. The North Atlantic swordfish quota levels are established through 2005. ICCAT will reevaluate the current quotas and recommend new ones at that time. NMFS will continue to evaluate the need for all current regulations with regard to the effect on harvest rates and will work with fishermen to preserve the U.S. quota share while ensuring consistency with the Magnuson-Stevens Act, Endangered Species Act (ESA), and other domestic laws.

Comment 4: U.S. underharvests are primarily a result of the premature closures of the directed fishery in 1997 and 1998 and the overly restrictive time/area closures currently in place. Scientific data shows swordfish recovering before implementation of the time/area closures. Because of current management, this once thriving domestic fishery has exhibited reduced effort and profitability.

Response: NMFS implemented the current time and area closures and other restrictions to reduce bycatch in the pelagic longline fishery. This bycatch included juvenile swordfish, billfish, sharks, and sea turtles. NMFS will evaluate the impact and effectiveness of the closures in Amendment 2 to the HMS FMP or other future rulemaking and will modify them if necessary to meet management objectives and legislative requirements.

Comment 5: One commenter opposed an increase in the North Atlantic swordfish quota. Even though the stock assessment indicates improvement, the stock is still overfished. Any increase in quota will slow down or reverse the improvement and lead to an increase in dead discards of juvenile swordfish, marlin, and sharks. Increasing the quota goes against NMFS' stated goal of risk-adverse management. The increase is hard to understand given the United States has not landed the quota since 1995.

Response: At its 2002 meeting, ICCAT conducted a North Atlantic swordfish stock assessment and determined that the population had nearly recovered to a level that will support maximum sustainable yield and that an increase will still allow the stock to rebuild by 2009, the established goal for rebuilding Atlantic swordfish. Based on this finding, ICCAT recommended an increase in swordfish quota and will hold another stock assessment in 2005 to monitor its results. NMFS does not expect the increase in U.S. quota to result in an increase in dead discards. Further, based on current regulations and the level of effort in the U.S. fishery, it is unlikely that catch rates of target and bycatch species will increase.

Comment 6: The United States should force ICCAT to reduce the overall quota and refuse to accept increases in quota for overfished stocks.

Response: ICCAT is currently comprised of 38 contracting parties that cooperate to formulate management recommendations. The United States is not in a position to force ICCAT to adopt a particular quota because the organization works primarily by consensus. In this case, the stock assessment demonstrated that the swordfish population has nearly recovered to a level that will support maximum sustainable yield and that an increase in allowable harvest would not prevent rebuilding within the originally agreed timeframe. The North Atlantic swordfish quota was increased based on this scientific advice.

South Atlantic Swordfish Quota

Comment 7: One commenter asked NMFS to explain why the United States lost South Atlantic swordfish quota despite quota increases for other nations fishing in that area.

Response: The United States South Atlantic swordfish quota was reduced due to its lower catches in that area in recent years. However, up to 200 mt ww of swordfish landed from between 5 degrees North and 5 degrees south latitude may be applied against the North Atlantic swordfish quota. Because most of the historical U.S. catch of South Atlantic swordfish has been

harvested from that area, this should mitigate most impacts from the reduction of the South Atlantic swordfish quota.

Comment 8: One commenter opposed the proposed increase in South Atlantic quota to over 100 mt because it would increase pressure on a stock for which data are incomplete.

Response: The Standing Committee on Research and Statistics (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. As a result, ICCAT increased the total allowable catch (TAC) for South Atlantic swordfish from 14,620 mt ww to 15,631 mt ww. The new ICCAT recommendation lowered the U.S. quota for South Atlantic swordfish from 384 mt ww in 2002 to 100 mt ww in 2003-2005. ICCAT further recommended that up to 200 mt ww of swordfish landed between 5 degrees North and 5 degrees south latitude be applied against the North Atlantic swordfish quota.

Quota Transfer

Comment 9: One commenter stated that the transfer of 25 mt ww of North Atlantic swordfish quota to Canada is an industry initiative to keep from losing part of the U.S. quota allocation if it is not likely to be harvested in the near future. Another commenter stated that the United States should keep control of this quota and not transfer it to Canada because any uncaught quota will help the stock rebuild faster and reduce bycatch.

Response: If the quota transfer to Canada did not transpire and there was a 25 mt ww underharvest, the remaining quota would be incorporated into the next year's U.S. North Atlantic swordfish quota. While keeping the 25 mt ww may help the stock rebuild in the short term (because neither the United States nor Canada would catch it), the quota would likely be harvested in the future. Transferring the quota to Canada may help maintain the U.S. allocation, but due to the current level of underharvests, more measures may be necessary to facilitate harvest of the full U.S. allocation.

Comment 10: Quota transfers and rulemaking concerning ICCAT recommendations should be conducted in a more timely manner. The fishing year was changed to June 1 to give NMFS the opportunity to propose and finalize any actions needed as a result of ICCAT recommendations. Untimely actions can disadvantage U.S. fishermen with respect to foreign competitors.

Response: NMFS attempts to conduct rulemaking in as timely a manner as possible. However, compliance with other applicable laws, such as the Endangered Species Act, may require the preparation of additional analyses and consultations, which can cause delays.

Dead Discard Allowance

Comment 11: Because the dead discard allowance is slated to be phased out in 2004, NMFS should develop a rule to eliminate the waste resulting from the strict implementation of the minimum size. U.S. pelagic longline vessels should not be required to discard undersized swordfish that cannot be returned to the sea alive and that are caught outside the closed areas. The minimum size should be enforced for other gear types within the closed areas.

Response: Currently, the minimum size restriction is a component of an ICCAT management recommendation. The U.S. adoption of the alternative minimum size with no tolerance is designed to reduce dead discards while still avoiding excess mortality of juvenile fish. Until ICCAT changes the minimum size, and NMFS implements the changes via a rulemaking process, NMFS will continue to enforce it for all gear types in all areas.

Comment 12: Commenters oppose the 80 mt ww dead discard allowance over and above the increase in quota. Dead discards should be counted against the existing quota.

Response: Previously, ICCAT recommended that the dead discard allowance for North Atlantic swordfish be phased out by 2004. At that time, a dead discard target was not provided for the 2003 fishing year. ICCAT corrected this omission in the 2002 recommendation and maintained the established schedule for the elimination of the dead discard allowance. Starting in 2004, dead discards will be counted against the applicable quotas for the harvesting nations.

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