DRAFT

ENVIRONMENTAL ASSESSMENT,

INITIAL REGULATORY IMPACT REVIEW,

AND INITIAL REGULATORY FLEXIBILITY ANALYSIS

FOR A

PROPOSED RULE

TO MODIFY THE NORTH AND SOUTH ATLANTIC SWORDFISH COMMERCIAL QUOTAS BASED ON 2006 INTERNATIONAL COMMISSION FOR THE CONSERVATION OF ATLANTIC TUNAS (ICCAT) RECOMMENDATIONS

May 2007

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

Proposed Rule to Modify the North and South Atlantic Swordfish Commercial Quotas Based on 2006 ICCAT Recommendations

Framework Adjustment to the Consolidated Fishery Management Plan

Proposed Action: Consistent with ICCAT recommendations, establish quotas for both North and South Atlantic swordfish , including carryover caps and reserve quota for potential transfer of up to fifteen percent of the U.S. swordfish allocation to other ICCAT contracting and cooperating parties. Consistent with the final rule published on October 2, 2006 (71 FR 58058), modify the swordfish fishing year for 2007 to create one fishing season from June 1, 2007, to December 31, 2007. Finally, include the option of an internet website as an additional method for complying with the Atlantic HMS Angling or Atlantic HMS Charter/Headboat category's 24 hour reporting requirement. Currently, reporting is by telephone only.

Type of Statement: Proposed Rule Documents: Environmental Assessment and Regulatory Impact Review

Lead Agency: National Marine Fisheries Service, Office of Sustainable Fisheries

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Abstract: The United States is obligated under the Atlantic Tunas Convention Act (ATCA) to implement conservation and management recommendations that have been adopted by the International Commission for the Conservation of Atlantic Tunas (ICCAT). The 2006 ICCAT recommendation 06-02 establishes the U.S. North Atlantic quota at 2,937.6 mt dw, limits North Atlantic swordfish carryover to fifty percent of the baseline quota, distributes 2,022.56 mt dw of the 2005 U.S. underharvest among ICCAT contracting and cooperating parties (CPCs) for 2007 and 2008, and allows CPCs to make a one time transfer of up to fifteen percent of their total allowable catch to other CPCs. ICCAT recommendation 06-03 establishes the U.S. South Atlantic swordfish baseline quota at 75.2 mt dw and limits carryover at 100 mt (75.2 mt dw). This rule is necessary to ensure continued progress toward the conservation goals of ICCAT for Atlantic Highly Migratory Species (HMS). Economic impacts resulting from these actions are not expected to be significant.

FINDING OF NO SIGNIFICANT ENVIRONMENTAL IMPACT TO MODIFY THE NORTH AND SOUTH ATLANTIC SWORDFISH COMMERCIAL QUOTAS BASED ON 2006 ICCAT RECOMMENDATIONS

National Marine Fisheries Service
2007

The HMS Management Division of the Office of Sustainable Fisheries submits the attached Environmental Assessment (EA) to implement new management measures for North and South Atlantic swordfish pursuant to the 2006 ICCAT recommendations (06-02) and (06-03) and to adjust previous years quotas based on updated landing reports. This EA was developed as an integrated document that includes an Initial Regulatory Impact Review (RIR) and Initial Regulatory Flexibility Analysis (IRFA). Copies of the proposed rule and the EA and RIR are available from NMFS at the following address:

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The EA considers information contained in the Environmental Impact Statement (EIS) associated with the 2006 Consolidated Atlantic Highly Migratory Species Fishery Management Plan (Consolidated HMS FMP), the 2006 Stock Assessment and Fishery Evaluation (SAFE) report, and the EA prepared for the November 28, 2006, proposed rule (71 FR 68784), which proposed amendments to the regulations governing the U.S. Atlantic swordfish fishery to enable a more thorough utilization of the U.S. North Atlantic swordfish quota. All information used is herein incorporated by reference.

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 CEQs "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?

No. This action would establish 2007 North and South Atlantic swordfish quotas, implement management measures pursuant to the 2006 ICCAT recommendations (06-02 and 06-03), adjust the 2006 North Atlantic and South Atlantic swordfish quotas based on the underharvest from the 2004 and 2005 fishing years and carryover caps, and modify the fishing year to allow the swordfish fishery to operate on a calendar year starting in 2008. The ICCAT recommendations establish an overall total allowable catch (TAC) for North Atlantic (14,000 mt ww) and South Atlantic (17,000 mt ww). The U.S. TAC is 2,937.6 mt dw for the North Atlantic and 75.2 mt dw for the South Atlantic for 2007 and 2008. A recent stock assessment published by ICCAT's Standing Committee on Research and Statistics (SCRS) indicates that North Atlantic swordfish is nearly rebuilt to Maximum Sustainable Yield (MSY) ($B_{2006}/B_{MSY} = 0.99$). There is no reliable estimate of stock status for South Atlantic swordfish at this time. ICCAT recommendations are part of a rebuilding plan to enhance and sustain swordfish populations. The measures described herein are consistent with the ICCAT recommendations and the overall TAC, furthering U.S. commitment to enhance and sustain swordfish populations. Additionally, NMFS has implemented a number of restrictions on the pelagic longline (PLL) fleet (the primary fleet that harvests Atlantic swordfish) over the past several years to reduce juvenile swordfish and bluefin tuna bycatch such as time/area closures, vessel monitoring systems (VMS), circle hooks, and live bait restrictions that have had the unintended consequence of contributing to quota underharvests. Accordingly, these actions are not expected to jeopardize the sustainability of the North or South Atlantic swordfish stock in 2007.

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

No. The various gear categories (PLL, recreational rod and reel, buoy gear) that target swordfish have several management measures in place that would continue to control fishing effort and catch. Those management measures regarding the PLL fleet include limited access permits, time/area closures, circle hook requirements, bait restrictions, careful release protocols, VMS requirements, quotas, retention limits, minimum size limits, landing restrictions, commercial billfish possession prohibition, authorized gears, observer requirements, and dealer and vessel logbook reporting. Buoy gear is defined and authorized for use in the commercial swordfish handgear fishery. Management measures regarding the commercial swordfish handgear fishery include many of the same restrictions as are on the PLL industry. Recreational landings of swordfish are monitored by the Large Pelagic Survey (LPS) and Marine Recreational Fisheries Statistics Survey (MRFSS), which can also produce data on numbers of incidental fish discarded while recreationally targeting swordfish. Actual numbers of other fish discarded for many species are very low. Anecdotal information for protected species interactions with recreation rod and reel gear indicate that encounters are rare.

NMFS does not expect the proposed action to jeopardize the sustainability of any non-target species due to these management restrictions. These restrictions have been effective at reducing bycatch and controlling overall fishing effort, both in terms of numbers of hooks fished and

numbers of active PLL vessels. The proposed action, which maintains the current baseline quotas and limits the carryover, is not expected to increase fishing effort in the Atlantic swordfish fisheries.

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?

No. The proposed action would predominantly impact the pelagic longline fleet, buoy gear, and the recreational rod and reel fishery. Pelagic longline (PLL) gear, buoy gear, and rod and reel gear are all suspended in the water column and do not touch the bottom substrate. Because of the nature of these fishing gear types, it is unlikely that they would have an adverse effect on or alter fish habitat, including EFH and the habitat for prey species. Additionally, as these actions are not expected to change fishing practices or effort, this proposed rule is not expected to shift existing fishing effort in a manner that would result in adverse effects to EFH beyond those impacts considered in the Environmental Impact Statement (EIS) for the Consolidated HMS FMP.

4. Can the action be reasonably expected to have a substantial adverse impact on public health and safety?

No. 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. NMFS cannot influence the market to improve profits to fishermen, but rather encourages fishermen to be responsible in fishing and maintenance activities. Safety factors were considered in selecting the proposed action, and NMFS has concluded that the proposed action is not likely to affect safety at sea.

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

No. NMFS does not expect the proposed action to have an adverse impact on endangered or threatened species, marine mammals, or critical habitat of these species due to in-place management measures. For example, the pelagic longline fleet has several management measures in place that would continue to control bycatch including: limited access permits, time/area closures, circle hook requirements, bait restrictions, careful release protocols, VMS requirements, authorized gears, and a new requirement to attend Protected Species Safe Handling, Release, and Identification workshops.

In regard to PLL bycatch, in June 25, 2004, NMFS announced the availability of a Final Supplementary Environmental Impact Statement (FSEIS) concerning the reduction of sea turtle bycatch and bycatch mortality in the Atlantic PLL fishery (69 FR 35599), and subsequently published a final rule on July 6, 2004 (69 FR 40734) to implement management measures to reduce bycatch and bycatch mortality of Atlantic sea turtles in the Atlantic PLL fishery. That rulemaking was based on the results of the 3–year Northeast Distant (NED) Closed Area research experiment involving interactions of PLL fishing gear and Atlantic sea turtles, other available studies and information on circle hook and bait treatments, and public comments. A

2004 BiOp issued for the Atlantic PLL fishery found that the measures that subsequently were included in the final rule were not likely to jeopardize the continued existence of loggerhead, green, hawksbill, Kemp's ridley, or olive ridley sea turtles, but were likely to jeopardize the continued existence of leatherback sea turtles. The 2004 BiOp also identified a Reasonable and Prudent Alternative necessary to avoid jeopardy, and contained an Incidental Take Statement (ITS) for the PLL that specifies the maximum number of interactions with sea turtles. Most recently, in December 2006, NMFS Office of Sustainable Fisheries reinitiated the Endangered Species Act (ESA) Section 7 consultation process for the U.S. Atlantic PLL fishery based on preliminary sea turtle take estimates which revealed that, under the 2004 BiOp ITS, the PLL fishery may have exceeded allowable take for leatherback sea turtles. In March 2007, the Office of Protected Resources responded stating that, based upon the current BiOp's jeopardy analysis and the available information about the PLL, continuing the PLL fishery during the reinitiation period will not result in jeopardy to leatherback or loggerhead sea turtles, and therefore is not in violation of sections 7(a)(2) and 7(d) of the Endangered Species Act.

In regard to recreational rod and reel gear, other species incidental to swordfish are caught. Recreational landings of swordfish are monitored by the LPS and MRFSS, which can also produce data on numbers of incidental fish discarded while recreationally targeting swordfish. Actual numbers of other marine life discarded for many species are very low as to be not significant, as previously determined in the EIS for the Consolidated HMS FMP.

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

No. The proposed action is not expected to have a substantial impact on biodiversity and ecosystem function because an increase in effort is not likely, restrictions on pelagic longline gear remain the same, the quota has not been fully harvested for a number of years, and the amount of carryover contributing to the adjusted quota in future years would be limited. The action, therefore, will not impact biodiversity and ecosystem function beyond that analyzed in the EIS for the Consolidated HMS FMP.

7. Are significant social or economic impacts interrelated with significant natural or physical environmental effects?

No. NMFS does not expect any significant social or economic impacts from implementing 2006 ICCAT recommendations and adjusting the 2006 quota due to 2004 and 2005 underharvests and new carryover caps, because NMFS does not expect effort to increase during the given fishing year. Although the adjusted quota available to the swordfish fishery may be slightly reduced due to the carryover cap and a potential quota transfer, the underharvests of the past several years indicates that it is unlikely that the entire 2007 quota would be utilized, thus economic and social impacts are not likely, nor are significant natural or physical environmental effects. These impacts are analyzed in Chapter 6.0 and Sections 4.1 and 4.2 of this Environmental Assessment.

8. To what degree are the effects on the quality of the human environment expected to be highly controversial?

The effects on the quality of the human environment are not expected to be highly controversial because the fishery has not been able to harvest the entire North and South Atlantic swordfish quota since 2000. There may be some controversy among interested parties regarding potential quota transfers to other ICCAT CPCs, however if the United States were to receive a request for a quota transfer arrangement with another ICCAT contracting party, it would take several factors into consideration, including but not limited to, the amount of quota to be transferred, the projected ability of U.S. vessels to harvest the U.S. TAC before the end of the fishing year, the potential benefits of the transfer to U.S. fishing participants (such as access to the EEZ of the receiving contracting party for the harvest of a designated amount of swordfish), and the contracting party's ICCAT compliance status. In addition, should NMFS decide to transfer some portion of the 15 percent transfer allotment, NMFS would undertake a separate rulemaking.

9. Can the proposed action be reasonably expected to result in substantial impacts to unique areas, such as historic or cultural resources, park land, prime farmlands, wetlands, wild and scenic rivers or ecologically critical areas?

No. This proposed action does not apply to any of the unique areas listed because no such areas exist in the action area. Indirect effects on unique areas are not expected, because this action does not aim to substantially increase quota different than the status quo and, in fact, decreases adjusted quotas due to underharvest carryover caps.

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

The proposed action is not likely to be highly uncertain or involve unique or unknown risks beyond those previously analyzed in the EIS of the Consolidated HMS FMP. This action would not change the current pelagic longline management measures (i.e., time/area closures, circle hook requirements, upgrading restrictions, limited access permits), buoy gear restrictions, or rod reel gear restrictions. In addition, the fishery has harvested only a proportion of the North or South Atlantic fishery quota for the past several years; therefore implementing ICCAT recommendations, adjusting the 2006 quotas, and modifying the 2007 fishing year are not likely to alter the status of the current fishery.

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

The proposed action is in accordance with management recommendations from the 2006 meeting of ICCAT for the North and South Atlantic swordfish stocks. Taking into consideration the management measures implemented through the August 2000 bycatch and time/area rule, the July 2004 rule implementing the Biological Opinion measures, the Consolidated HMS FMP, and the 2006 proposed rule to modify U.S. swordfish fishery management measures, NMFS does not expect adverse cumulative impacts from this action. Although NMFS has proposed a rule to modify U.S. swordfish fishery management measures, NMFS does not expect significant cumulative impacts to occur as a result of combination with this action. The combined result of the two actions may be that this action would aid the swordfish fishery to fully catch its quota. Therefore, the proposed action, when considered with previous and reasonably foreseeable actions, is not expected to result in cumulatively significant impacts.

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.

No. The measures proposed in this action will occur in the coastal and open ocean environments and therefore do not occur in areas such as districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places. The management measures in the proposed action also will not cause loss or destruction of significant, cultural, or historical resources.

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

No. The actions would modify U.S. North and South Atlantic swordfish quotas, and these actions would not result in the introduction or spread of any non-indigenous species. Fishing for swordfish with pelagic longline, rod and reel, and buoy gear would not result in the 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?

No. Complying with ICCAT recommendations is consistent with past NMFS actions, and would remain in effect until ICCAT develops new recommendations. It would be precedent setting to not take action to implement the 2006 North and South Atlantic swordfish quotas, ICCAT recommendations, which could result in losing quota allocation from ICCAT in the long term.

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?

No. The proposed action is consistent with section 304(b)(1) of the Magnuson-Stevens Fishery Conservation and Management Act, including the National Standards, and other applicable laws such as ESA as described in the June 2004 and June 2001 BiOps. This proposed action is necessary for conservation and management and is consistent with the Magnuson-Stevens Act and therefore would not be expected to threaten a violation of Federal, State, or local law or requirement imposed for the protection of the environment.

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

No. Cumulative adverse effects on the target or non-target species are not expected because this action would not modify the current restrictions on the pelagic longline, buoy gear, or rod and reel fisheries during 2007 or 2008 and is not expected to increase fishing effort on the target or non-target species. Therefore, this proposed action should not have any impact on other finfish or protected species that have not already been considered in the Consolidated HMS FMP and June 2004 and 2001 BiOps. Because the preferred measures would not result in signficant changes in fishing effort or practices, NMFS does not expect that sustainability of these bycatch species would be affected by this proposed rulemaking.

Two BiOps for the PLL Atlantic swordfish fishery were prepared in June 2004 and June 2001 in response to the 1999 HMS FMP for Atlantic Tunas, Swordfish, and Sharks (and other management measures) which concluded that operation of the PLL fishery under these measures would not adversely affect protected species. The PLL fleet has several management measures in place that would continue to control bycatch including: limited access permits, time/area closures, circle hook requirements, bait restrictions, careful release protocols, VMS requirements, authorized gears, and a new requirement to attend Protected Species Safe Handling, Release, and Identification workshops. None of these protective measures are altered by this proposed action to adjust quotas, create carryover caps, and implement a quota transfer. Furthermore, in December 2006, the NMFS Office of Sustainable Fisheries reinitiated the Endangered Species Act (ESA) Section 7 consultation process for the U.S. Atlantic pelagic longline (PLL) fishery based on sea turtle take estimates which revealed that, under the incidental take statement (ITS), the PLL fishery may have exceeded allowable take for leatherback sea turtles. In March 2007, the NMFS Office of Protected Resources responded in stating that, based upon the current BiOp's jeopardy analysis and the available information about the PLL, continuing the PLL fishery during the reinitiation period will not result in jeopardy to leatherback or loggerhead sea turtles, and therefore is not in violation of sections 7(a)(2) and 7(d) of the Endangered Species Act.

DETERMINATION

In view of the information presented in this document and the analysis contained in the attached Environmental Assessment for a proposed rule to implement the 2006 ICCAT recommendations for 2007 North and South Atlantic swordfish quotas, it is hereby determined that this action would 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: DRAFT _____

Alan D. Risenhoover, Director
Office of Sustainable Fisheries

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 (NMFS) 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 obligated under ATCA to implement recommendations from the International Commission for the Conservation of Atlantic Tunas (ICCAT). The measures in this rulemaking were recommended by ICCAT during the fall of 2006. 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. For additional information about the management history of the North and South Atlantic swordfish stocks, please refer to the 2006 Final Consolidated Atlantic Highly Migratory Species Fishery Management Plan (Consolidated HMS FMP) (NMFS, 2006).

1.2. Need for Action and Objectives

The purpose of this action is to establish quotas for both North and South Atlantic swordfish based on ICCAT recommendations and updated landings information, to place caps on underharvest carryover, and to reserve quota for potential transfer of up to fifteen percent of the U.S. swordfish allocation to other ICCAT CPCs. The need for this action is to adjust U.S. swordfish quotas based on updated landings information, and to implement the 2006 ICCAT recommendations (06-02 and 06-03), consistent with international obligations and the ATCA. These recommendations are based on the results of a recent ICCAT Standing Committee on Research and Statistics (SCRS) swordfish stock assessment. As a result, the recommendations establish catch limits and cap the amount of swordfish quota carryover during 2007 and 2008. Recommendation 06-02 also creates a provision allowing for a one-time fifteen percent quota transfer between ICCAT CPCs, and distributes a portion of the 2006 U.S. swordfish underharvest among various contracting parties, including seven that previously have not been allocated a share of the North Atlantic swordfish total allowable catch (TAC).

In addition to implementing recent ICCAT recommendations, this action also abbreviates the 2007 fishing year per the Consolidated HMS FMP to transition the swordfish fishery to operate on a calendar year starting January 2008, adjusts quotas and landings based on updated 2004 and 2005 landing estimates, and establishes baseline quotas for North and South Atlantic swordfish fishery for 2007 and beyond. Finally, NMFS proposes to include the option of an internet website as an additional method for complying with the Atlantic HMS Angling or Atlantic HMS Charter/Headboat category's 24 hour reporting requirement. Currently, reporting is by telephone only. The reporting requirement change is not expected to have any environmental impacts. Rather, it provides additional flexibility for fisherman to report harvest. As such, it is not analyzed as an alternative in this EA but is provided in the proposed rule for public comment. These actions are consistent with the Consolidated HMS FMP, Magnuson-Stevens Act, ATCA, and other domestic regulations.

In this EA/RIR/IRFA, NMFS considers the biological, social, and economic impacts of implementing the 2006 ICCAT recommendations for North and South Atlantic swordfish, and

carrying over the unharvested quota of North and South Atlantic swordfish based on reviews of landings, logbook, and observer data. The preferred alternatives and regulations are in accordance with the National Environmental Policy Act (NEPA) and other applicable laws. The preferred alternatives have been selected due to their consistency with the objectives of the Consolidated HMS FMP, the Magnuson-Stevens Act, ATCA, and the 2006 ICCAT recommendation to amend the rebuilding plan for North Atlantic swordfish (06-02) and the recommendation regarding catch limits of South Atlantic swordfish (06-03).

2.0 SUMMARY OF THE ALTERNATIVES

This section provides a summary and basis for the alternatives considered in this rulemaking. Under ATCA and the Magnuson-Stevens Act, NMFS is required to implement ICCAT recommendations to manage U.S. fisheries. The ecological, social, and economic impacts of these alternatives are described in other chapters, particularly chapters 4, 6, 7, and 8. Under all alternatives, it is important to note that, per the Consolidated HMS FMP, the 2007 fishing year will only cover June 1 to December 31, 2007, and the 2008 and future fishing years will cover January 1 to December 31 of each year.

Section 1: Quotas and Underharvest Carryovers

Alternative 1a: Maintain current baseline quota (No Action)

This alternative would maintain the status quo, meaning that baseline quotas, 2,937.6 mt dw for North Atlantic swordfish, and 90.2 mt dw for South Atlantic swordfish that were established May 19, 2006 (71 FR 29087) would be extended into 2007 and beyond. This alternative would incorporate recent landings updates and carry over the entire underharvest minus dead discards (4,691.2 mt dw; Table 2.1) from the 2005 fishing year into 2006. Additionally, the underharvests from current and future fishing years (e.g., 2006 and beyond) would be added to the next fishing year (e.g., 2007 and beyond).

Alternative 1b: *Implement North and South Atlantic swordfish quotas and underharvest provisions as outlined in ICCAT recommendations 06-02 and 06-03 (Preferred alternative)*

This alternative, consistent with the 2006 ICCAT swordfish recommendations (06-02 and 06-03), would establish the same baseline quota for North Atlantic swordfish as previous years (2,937.6 mt dw). The South Atlantic swordfish baseline quota would be reduced to 75.2 mt dw. Although the 2006 ICCAT recommendations for swordfish are specific for 2007 and 2008, these quotas and carryover provisions would remain in place until ICCAT issues new recommendations for the United States.

Additionally, this alternative would establish a cap on underharvest carryover equal to 50 percent of the original quota allocation for North Atlantic swordfish. This alternative would also establish a cap on the amount of South Atlantic swordfish underharvest that can be carried forward to 100 mt (75.2 mt dw). Under this alternative, the maximum allowance for carryover would be equal to 1,468.8 mt dw and 75.2 mt dw for the North and South Atlantic regions, respectively. Furthermore, 2,022.56 mt dw of the U.S. 2006 North Atlantic underharvest would

be redistributed among other CPCs in 2007 (1,011.28 mt dw) and 2008 (1,011.28 mt dw). As such, the adjusted quota in 2007 would be 4,406.4 mt dw (Table 2.2) in the North Atlantic and 150.4 mt dw (Table 2.2) in the South Atlantic.

Section 2: Quota Transfers

Alternative 2a: Allocate no additional quota to the reserve category (No Action)

In 2002, a reserve quota category was created for U.S. North Atlantic swordfish. At that time, 301 mt dw of North Atlantic swordfish was allocated to the reserve. The establishment of the reserve category was designed to implement an international agreement, which allowed the North Atlantic rebuilding program to remain on track. Quota in the reserve category may be used for inseason adjustments to other fishing categories, to compensate for projected or actual overharvest in any category, for fishery independent research, or for other purposes consistent with management objectives. No additional quota has been added to the reserve category since its establishment in 2002, however, a number of transfers have been made out of the reserve, including 18.8 mt dw of North Atlantic swordfish to Canada annually since 2003 (November 23, 2004; 69 FR 68090) and 161.7 mt dw to Japan in 2002 (March 24, 2003; 68 FR 14167). This alternative would maintain the status quo, which includes the annual quota transfer from the North Atlantic swordfish reserve category quota to Canada. The adjusted quota allotted to the reserve category, as of the beginning of the 2006 fishing year, was 82.7 mt dw. Once the 18.8 mt dw transfer occurs in 2007, the reserve category would have 63.9 mt dw of quota remaining (Table 2.1). Under the no action alternative, no additional quota would be allotted to the reserve category, and no reserve quota would be established for implementing ICCAT recommendations regarding potential transfer provisions.

Alternative 2b: *Transfer 15 percent (440.6 mt dw) of the 2007 baseline U.S. North Atlantic swordfish allocation to the reserve category (Preferred alternative)*

The current ICCAT recommendation (06-02) contains a provision to allow a contracting party with a TAC allocation to make a one-time quota transfer within a fishing year of up to 15 percent of its TAC allocation, consistent with domestic obligations and conservation considerations. The ICCAT recommendation stipulates that the quota transfer may not be used to cover underharvests, and that a contracting party that receives a one-time quota transfer may not retransfer that quota. This alternative would transfer 15 percent (440.6 mt dw) of the 2007 U.S. North Atlantic swordfish baseline quota directly into the reserve category. Thus, the total reserve would be 504.5 mt dw (Table 2.3). 18.8 mt dw would continue to be transferred annually to Canada per the ICCAT recommendation (06-02).

As described in alternative 2a, this additional portion of baseline quota in the reserve category may be used for inseason adjustments to other fishing categories, to compensate for projected or actual overharvest in any category, for fishery independent research, or for other purposes consistent with management objectives. No additional quota has been added to the reserve category since its establishment in 2002, however, a number of transfers have been made out of the reserve, including 18.8 mt dw of North Atlantic swordfish to Canada annually since 2003 (November 23, 2004; 69 FR 68090) and 161.7 mt dw to Japan in 2002 (March 24, 2003; 68 FR 14167). Under this alternative, if NMFS receives a request from another country for some

portion of the 15 percent allowed to be transferred under recommendation 06-02, NMFS would undertake a separate action and conduct analyses, as needed.

Alternative 2c: Establish procedures for possible implementation of the transfer provision outlined in the 2006 ICCAT recommendation, 06-02

This alternative would establish procedures for handling transfer requests or offers by ICCAT CPCs. This alternative differs from alternative 2b, in that this alternative would not place 15 percent of the North Atlantic baseline quota directly into the reserve. Rather, any transfer of quota would come from the directed quota category. For the United States, the 15 percent limit on quota transfer to other CPCs equates to 440.6 mt dw. If the United States were to receive a request for a quota transfer arrangement with another ICCAT contracting party, it would take several factors into consideration, including but not limited to, the amount of quota to be transferred, the projected ability of U.S. vessels to harvest the U.S. TAC before the end of the fishing year, the potential benefits of the transfer to U.S. fishing participants (such as access to the EEZ of the receiving contracting party for the harvest of a designated amount of swordfish), and the contracting party's ICCAT compliance status. The difference between this alternative and the preferred alternative 2b, is that the quota available for possible transfer to another CPC would not sit in the reserve at the beginning of a given fishing year. Rather, U.S. quota would instead be taken immediately from the directed quota category, should a transfer occur. Under this alternative, NMFS would analyze the impacts in a separate rulemaking before making any decision.

Table 2.1: Landings and Quotas for the Atlantic Swordfish Fisheries (2004 - 2007) Under No Action.

North Atlantic Swordfish Quota (mt dw)		**2004 final**	**2005 preliminary**	**2006 preliminary**	**2007 preliminary**
Baseline Quota		2,937.6	2,937.6	2,937.6	2,937.6
Quota Carried Over		2,275.1	3,359.1	4,691.2	6,681.5
Adjusted quota		**5,212.7**	**6,296.7**	**7,628.8**	**9619.1**
Quota Allocation	Directed Category	4,792.4	5,895.2	7,246.1	9255.2
	Incidental Category	300.0	300.0	300.0	300.0
	Reserve Category	120.3	101.5	82.7	63.9
Utilized Quota	Landings	1,665.1	1,471.8	928.5 to date	TBD
	Reserve Transfer to Canada	18.8	18.8	18.8	18.8
Total Underharvest		3,528.8	4,806.1	6,681.5 to date	TBD
Dead Discards		-169.8	-114.9	TBD	TBD
Carryover Available		3,359.1	4,691.2	6,681.5 to date	TBD
South Atlantic Swordfish Quota (mt dw)		**2004 final**	**2005 preliminary**	**2006 preliminary**	**2007 preliminary**
Baseline Quota		75.2	75.2	90.2	90.2
Quota Carried Over		259.1	319.3	394.5	484.7
Adjusted quota		**334.3**	**394.5**	**484.7**	**574.9**

Landings	15.0	0.0	0.0 to date	TBD
Carryover Available	319.3	394.5	484.7 to date	TBD

Table 2.2: Landings and Quotas for the Atlantic Swordfish Fisheries (2004 - 2007) Under *Preferred* Alternative 1b and status quo Alternative 2a for quota transfers.

North Atlantic Swordfish Quota (mt dw)		2004 final	2005 preliminary	2006 preliminary	2007 preliminary
Baseline Quota		2,937.6	2,937.6	2,937.6	2,937.6
Quota Carried Over		2,275.1	3,359.1	4,691.2	1,468.8
Adjusted quota		**5,212.7**	**6,296.7**	**7,628.8**	**4,406.4**
Quota Allocation	Directed Category	5,895.2	7,246.1	7,246.1	4,042.5
	Incidental Category	300.0	300.0	300.0	300.0
	Reserve Category	120.3	101.5	82.7	63.9
Utilized Quota	Landings	1,471.8	1,471.8	928.5 to date	TBD
	Reserve Transfer to Canada	18.8	18.8	18.8	18.8
Total Underharvest		3,528.8	4,806.1	6,681.5 to date	TBD
Dead Discards		-114.9	TBD	TBD	TBD
Carryover Available		3,359.1	4,691.2	1,468.8	TBD
South Atlantic Swordfish Quota (mt dw)		**2004 final**	**2005 preliminary**	**2006 preliminary**	**2007 preliminary**
Baseline Quota		75.2	75.2	90.2	75.2
Quota Carried Over		259.1	319.3	394.5	75.2
Adjusted quota		**334.3**	**394.5**	**484.7**	**150.4**
Landings		15.0	0.0	0.0 to date	TBD
Carryover Available		319.3	394.5	75.2	75.2

Table 2.3: Landings and Quotas for the Atlantic Swordfish Fisheries (2004 - 2007) Under *Preferred* Alternative 2b and status quo Alternative 1a for carryover caps.

North Atlantic Swordfish Quota (mt dw)		2004 final	2005 preliminary	2006 preliminary	2007 preliminary
Baseline Quota		2,937.6	2,937.6	2,937.6	2,937.6
Quota Carried Over		2,275.1	3,359.1	4,691.2	6,681.5
Adjusted quota		**5,212.7**	**6,296.7**	**7,628.8**	**9,619.1**
Quota Allocation	Directed Category	4,792.4	5,895.2	7,246.1	8,814.6
	Incidental Category	300.0	300.0	300.0	300.0
	Reserve Category	120.3	101.5	82.7	504.5
Utilized Quota	Landings	1,665.1	1,471.8	928.5 to date	TBD

	Reserve Transfer to Canada	18.8	18.8	18.8	18.8
Total Underharvest		3,528.8	4,806.1	6,681.5 to date	TBD
Dead Discards		-169.8	-114.9	TBD	TBD
Carryover Available		3,359.1	4,691.2	6,681.5 to date	TBD
South Atlantic Swordfish Quota (mt dw)		**2004 final**	**2005 preliminary**	**2006 preliminary**	**2007 preliminary**
Baseline Quota		75.2	75.2	90.2	75.2
Quota Carried Over		259.1	319.3	394.5	484.7
Adjusted quota		**334.3**	**394.5**	**484.7**	**559.9**
Landings		15.0	0.0	0.0 to date	TBD
Carryover Available		319.3	394.5	484.7 to date	TBD

Table 2.4: Landings and Quotas for the Atlantic Swordfish Fisheries (2004 - 2007) Under Both *Preferred* Alternatives 1b and 2b.

North Atlantic Swordfish Quota (mt dw)		**2004 final**	**2005 preliminary**	**2006 preliminary**	**2007 preliminary**
Baseline Quota		2,937.6	2,937.6	2,937.6	2,937.6
Quota Carried Over		2,275.1	3,359.1	4,691.2	1,468.8
Adjusted quota		**5,212.7**	**6,296.7**	**7,628.8**	**4,406.4**
Quota Allocation	Directed Category	4,792.4	5,895.2	7,246.1	3,601.9
	Incidental Category	300.0	300.0	300.0	300.0
	Reserve Category	120.3	101.5	82.7	504.5
Utilized Quota	Landings	1,665.1	1,471.8	928.5 to date	TBD
	Reserve Transfer to Canada	18.8	18.8	18.8	18.8
Total Underharvest		3,528.8	4,806.1	6,681.5 to date	TBD
Dead Discards		-169.8	-114.9	TBD	TBD
Carryover Available		3,359.1	4,691.2	1,468.8	TBD
South Atlantic Swordfish Quota (mt dw)		**2004 final**	**2005 preliminary**	**2006 preliminary**	**2007 preliminary**
Baseline Quota		75.2	75.2	90.2	75.2
Quota Carried Over		259.1	319.3	394.5	75.2
Adjusted quota		**334.3**	**394.5**	**484.7**	**150.4**
Landings		15.0	0.0	0.0 to date	TBD
Carryover Available		319.3	394.5	75.2	TBD

3.0 DESCRIPTION OF AFFECTED ENVIRONMENT

This chapter describes the affected environment of the proposed action for Atlantic swordfish. The information presented here should be considered a summary. More detailed descriptions of

the life histories and population status of the species managed by NMFS are presented in Section 3.2 of the 2006 SAFE Report Final, which is incorporated in the Consolidated HMS FMP (NMFS, 2006), and are not repeated here. Detailed information on catch and bycatch of HMS by fishery are also provided in Sections 3.4 and 3.8, respectively, of the 2006 SAFE Report in the Consolidated HMS FMP (NMFS, 2006), and are not repeated here. This description should provide an overview of the current conditions and serve as a baseline against which to compare impacts of the alternatives considered.

Swordfish are members of the family *Xiphiidae,* in the suborder *Scombroidei.* Atlantic swordfish (*Xiphias gladius)* are one of the largest and fastest predators in the Atlantic Ocean, reaching a maximum size of 530 kg (1165 lb). They are distinguished by a long bill that grows forward from the upper jaw. Swordfish capture prey by slashing this bill back and forth in schools of smaller fish or squid, stunning or injuring their prey in the process. Their diet may consist of groundfish, pelagics, deep-water fish, and invertebrate. Swordfish are usually found in surface waters but show extensive diel migrations and dive as deep as 650 meters. They are capable of migrating long distances to maximize prey availability and, thus, are distributed globally in tropical and subtropical marine waters. Their broad distribution, large spawning area, and prolific nature have contributed to the resilience of the species in spite of heavy fishing pressure exerted by many nations.

3.1 Status of the Stocks

North Atlantic Swordfish

North Atlantic swordfish are currently overfished, but overfishing is not occurring. A 2006 stock assessment by the SCRS (SCRS, 2006) indicated that North Atlantic swordfish biomass has improved, possibly due to strong recruitment in the late 1990's combined with reductions in reported catch since then. The SCRS estimated the biomass of North Atlantic swordfish at the beginning of 2006 (B_{2006}) to be at 99 percent of the biomass necessary to produce maximum sustainable yield (B_{msy}). The 2005 fishing mortality rate (F_{2005}) was estimated to be 0.86 times the fishing mortality rate at maximum sustainable yield (F_{msy}). In other words, in 2006, the North Atlantic swordfish stock is almost fully rebuilt and fishing mortality is low. Although there is some uncertainty with this conclusion, almost half of the estimates of current biomass were greater than or equal to B_{msy}. The SCRS felt that if the current TAC management strategy is maintained, the stock is likely to remain near the level that would produce MSY.

South Atlantic Swordfish

The status of the South Atlantic swordfish stock is uncertain at present; however, it is considered to be good. The current estimated fishing mortality rate is thought to be below the mortality rate that would produce MSY. MSY is currently estimated to be 17,000 mt ww (12,782 mt dw), which is 33 percent greater than the current reported landings. According to the 2006 SCRS report, the current biomass of South Atlantic swordfish is potentially above that which would result from long-term fishing at F_{MSY}. Based on these estimates, and the need for further research to fully utilize existing data, SCRS recommended capping the South Atlantic annual TAC at 17,000 mt ww (12,782 mt dw) until another assessment can be completed.

3.2 Fishery Participants, Gear Types, and Affected Area

Additional information about the operation of U.S. HMS fisheries can be found in the 2006 SAFE Report in the Consolidated HMS FMP (NMFS, 2006). The Consolidated HMS FMP provides detailed information about the operation and management of the various commercial swordfish fisheries (pelagic longline, handgear including rod and reel and buoy gear, and other gears), and the recreational HMS fishery, including international and domestic management measures, and permitting and reporting requirements.

3.3 Habitat

The 2006 SAFE Report included in the Consolidated HMS FMP addresses the habitat utilized by the various species targeted by the pelagic longline fishery. Typically, the fisheries targeting swordfish exist offshore in deeper waters within the water column, so there is no interaction with bottom substrate or other essential fish habitat.

3.4 Protected Species

For the most recent information on Biological Opinions (BiOps) for HMS fisheries and specifically the pelagic longline swordfish fishery, please refer to the Consolidated HMS FMP (NMFS, 2006). The Consolidated HMS FMP also provides a description of the Reasonable and Prudent Measures and Terms and Conditions implemented pursuant to the BiOps for sea turtles.

Additionally, the Consolidated HMS FMP discusses marine mammal interactions with HMS fisheries and the impact of the Marine Mammal Marine Mammal Protection Act (MMPA) on HMS management. Finally, in December 2006, the NMFS Office of Sustainable Fisheries reinitiated the Endangered Species Act (ESA) Section 7 consultation process for the U.S. Atlantic pelagic longline (PLL) fishery based on sea turtle take estimates which revealed that, under the incidental take statement (ITS), the PLL fishery may have exceeded allowable take for leatherback sea turtles. In March 2007, the NMFS Office of Protected Resources responded in stating that, based upon the current BiOp's jeopardy analysis and the available information about the PLL, continuing the PLL fishery during the reinitiation period will not result in jeopardy to leatherback or loggerhead sea turtles, and therefore is not in violation of sections 7(a)(2) and 7(d) of the Endangered Species Act.

4.0 ENVIRONMENTAL CONSEQUENCES OF ALTERNATIVES CONSIDERED

NMFS is required to implement ICCAT recommendations under ATCA, if the United States accepts those recommendations. The measures discussed below satisfy the United States' obligation to implement the binding conservation and management measures that have been adopted by ICCAT. The measures are also consistent with the goals of the Consolidated HMS FMP (NMFS, 2006), specifically, to prevent overfishing and rebuild overfished fisheries. The environmental and economic consequences of the selected alternative are described below.

4.1 North and South Atlantic Swordfish Quota and Underharvest Carryovers

As described in Section 2, the alternatives considered for the Atlantic swordfish quota and underharvest carryovers are:

Alternative 1a: Maintain current baseline quota (No Action)

Alternative 1b: *Implement North and South Atlantic swordfish quotas and underharvest provisions as outlined in ICCAT recommendations 06-02 and 06-03 (Preferred alternative)*

Ecological Impacts

Alternative 1a would maintain the status quo, meaning that the baseline quotas, 2,937.6 mt dw for North Atlantic swordfish, and 90.2 mt dw for South Atlantic swordfish that were established on May 19, 2006 (71 FR 29087) would be extended into 2007 and beyond. This alternative would incorporate recent landings updates and carry over the entire underharvest minus dead discards (4,691.2 mt dw; Table 2.1) from the 2005 fishing year into 2006. Additionally, the entire underharvests from current and future fishing fishing years (e.g., 2006 and beyond) would be added to the next fishing year (e.g., 2007 and beyond).

Under alternative 1a, ICCAT recommendations for its current management period (2007-2009) would not be followed. The conservation goals of ICCAT for Atlantic Highly Migratory Species (HMS) and compliance with NMFS' statutory mandate under the ATCA would not be met. North Atlantic swordfish are classified as overfished; however, the SCRS 2006 stock assessment found that North Atlantic swordfish is nearly rebuilt to maximum sustainable yield (MSY) (B_{2006}/B_{MSY}=0.99). In addition, there occurred a strong recruitment period in the 1990's which progressed into medium size and spawning-size swordfish. This was coupled with a 40 percent decrease in total world estimated catch from 1987-2005 to yield an increase in spawning biomass for the North Atlantic. The SCRS 2006 North Atlantic stock assessment further reports that if current ICCAT TAC management strategies are maintained, the stock is likely to remain near the level that will produce MSY. There is no reliable estimate of stock status for South Atlantic swordfish at this time, but SCRS noted that total reported catches have decreased since 1995 and that the fishing mortality and biomass estimates are likely to allow for fishing at MSY. Alternative 1a would not be keeping with ICCAT TAC management strategy, because maintaining the status quo would result in U.S. adjusted quotas that are well above the U.S. TAC and recommendations. Since this would not compliment ICCAT management strategy and SCRS data on swordfish stock status, alternative 1a would have slight adverse ecological impact.

Alternative 1b would be consistent with ICCAT recommendations 06-02 and 06-03. It would establish the same baseline quota for the North Atlantic swordfish as previous years (2,937.6 mt dw). The South Atlantic swordfish quota would be reduced from 90.2 mt dw to 75.2 mt dw. Also pursuant to ICCAT recommendations 06-02 and 06-03, alternative 1b would establish caps on underharvest carryovers beginning during the 2007 fishing year. For the North Atlantic, underharvest carryovers would be limited to 50 percent of the baseline quota (1,468.6 mt dw). For the South Atlantic, underharvest carryovers would be limited to 100 mt (75.2 mt dw).

Under alternative 1b, continued progress toward the conservation goals of ICCAT for North Atlantic swordfish and compliance with NMFS' statutory mandate under the ATCA would be met. Capping underharvest carryovers equal to 50 percent of the baseline quota (1,468.8 mt dw) for North Atlantic swordfish, capping underharvest carryovers equal to 100 mt (75.2 mt dw) for South Atlantic swordfish, and redistributing 2,022.56 mt dw of the U.S. North Atlantic underharvest among other CPCs in 2007 and 2008 would compliment ICCAT rebuilding plan and maintains ICCAT recommendations for TAC during the rebuilding period.

The ecological impacts of adopting alternative 1b would vary based on the fishing effort of the U.S. pelagic longline, buoy gear, and rod and reel fisheries. Currently, the fishery has been unable to catch the entire U.S. swordfish quota causing significant amounts to be carried over to the following fishing year. For example, the amount of total underharvest during years 2004-2006 was 3,528.8 mt dw, 4,806.1 mt dw, and 6,905.9 mt dw respectively (Table 2.1). Placing caps on underharvest carryovers would reduce adjusted quotas in 2007 and 2008, reducing the significant carryover which had occurred in the past. Capping underharvest carryovers would also reduce adjusted quotas in future fishing years (e.g., 2007 and beyond and 2008 and beyond). This reduces the amount of swordfish that could potentially be harvested as compared to alternative 1a. The caps also lower future adjusted quotas for swordfish for the United States compared to alternative 1a, resulting in lower potential yields being taken. For these reasons, NMFS does not expect adverse ecological impacts to result from preferred alternative 1b.

An estimated 312 loggerhead and 1,208 leatherback sea turtle interactions occurred in the pelagic longline fishery in 1999 compared to 275 loggerhead and 312 leatherback sea turtle interactions in 2005 (NMFS, 2006). Also, an estimated 422 marine mammal mortalities occurred in the pelagic longline fishery in 1999 compared to 371.9 in 2005 (NMFS, 2006). Dead discards of swordfish, sailfish, blue and white marlin, and several shark species also decreased from 1999 to 2006 (NMFS, 2006; Pelagic Longline Logbook Data). Furthermore, NMFS has reinitiated the Endangered Species Act (ESA) Section 7 consultation process for the U.S. Atlantic pelagic longline (PLL) fishery (see Section 4.5).

Social and Economic Impacts

Under alternative 1a, based on the average 2005 ex-vessel price for North Atlantic swordfish of $3.78 per pound (EA for the November 28, 2006; 71 FR 68784), and using Table 2.1, the adjusted quota, if fully harvested, would be worth about $82 million in 2007 [(2,937.6 mt dw + 6905.9 mt dw)*2204.6*$3.78]. Using the 2005 average ex-vessel price of $3.80 (EA for the November 28, 2006; 71 FR 68784) for the South Atlantic swordfish quota, and using Table 2.1, the adjusted quota under the no action alternative 1a, if fully harvested, would be worth about $1.40 million in 2007 [(75.2 mt dw + 75.2 mt dw)*2204.6*$3.80].

Under alternative 1b, based on the average 2005 ex-vessel price for North Atlantic swordfish of $3.78 per pound (EA for the November 28, 2006; 71 FR 68784), and using Table 2.2, the adjusted quota, if fully harvested, would be worth about $36.70 million in 2007 [(2,937.6 mt dw + 1,468.8 mt dw)*2204.6*$3.78]. Using the 2005 average ex-vessel price of $3.80 (EA for the November 28, 2006; 71 FR 68784) for the South Atlantic swordfish quota, and using Table 2.2, the adjusted quota under the preferred alternative 1b, if fully harvested, would be worth about $1.26 million in 2007 [(90.2 mt dw + 75.2 mt dw)*2204.6*$3.80].

NMFS expects slight negative social or economic impacts from maintaining the North Atlantic baseline quota (2,937.6 mt dw), decreasing the South Atlantic baseline quota (75.2 mt dw), and capping underharvest carryover allowances to 50 percent of the baseline quotas for the North Atlantic and 100 mt (75.2 mt dw) for the South Atlantic (1b) compared to taking no action (1a). There is a chance that economic benefits from the proposed action could decrease due to carryover caps and lower adjusted quotas. However, the United States is obligated under the ATCA to implement conservation and management recommendations that have been adopted by ICCAT. This rule is necessary to ensure continued progress toward the conservation goals of ICCAT for Atlantic HMS. Since these recommendations decrease the South Atlantic baseline quota and cap underharvest carryovers, the commercial swordfish fishery could lose potential profits compared to the status quo alternative 1a.

By applying caps and baseline quotas recommended in ICCAT 06-02 and 06-03 for 2007, prices for fully realized quota harvests calculated above can be compared for application of alternative 1a versus 1b. Application of alternative 1b versus 1a results in a difference of $45.3 million for the North Atlantic swordfish fishery in 2007 if harvests are fully realized. Application of alternative 1b versus 1a results in a difference of $.14 million for the South Atlantic swordfish fishery in 2007 if harvests are fully realized. However, the pelagic longline fleet has been unable to catch the entire U.S. swordfish quota causing significant amounts to be carried over in past fishing years. For example, the amount of total underharvest during years 2004-2006 was 3,528.8 mt dw, 4,806.1 mt dw, and 6,905.9 mt dw respectively (Table 2.1). In a separate rulemaking, NMFS is adjusting swordfish retention limits and vessel upgrading restrictions to aid the industry in catching the full quota. Even though this proposed action may reduce availability of higher potential revenues for the industry as compared to a fully-realized status quo, the proposed action could fare well for long-term increased revenues in combination with the separate rulemaking mentioned above (vessel upgrades and retention limits). Because the industry has had increasing adjusted quotas due to large carryovers, the proposed caps would bring the goal of fully realizing a harvest within reach. Therefore, with a fully-realized quota, this proposed action could increase the potential for the United States to maintain TACs at future ICCAT meetings. Thus, NMFS does not expect adverse economic or social impacts from the preferred alternative 1b.

Conclusion

Alternative 1b is consistent with ICCAT recommendations, Magnuson-Stevens Act, ATCA, and the Consolidated HMS FMP (NMFS, 2006). Alternative 1b would have some slight positive long term ecological benefits, compared to the status quo. While alternative 1b would forego potential short term revenue thereby creating a lost option, alternative 1b would prevent large carryovers that have occurred in the past and aid the commercial swordfish fishery to catch its full quota.

4.2 North and South Atlantic Swordfish Quota Transfers

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

Alternative 2a: Allocate no additional quota to the reserve category (No Action)

Alternative 2b: *Transfer 15 percent (440.6 mt dw) of the 2007 baseline U.S. North Atlantic swordfish allocation to the reserve category (Preferred alternative)*

Alternative 2c: Establish procedures for possible implementation of the transfer provision outlined in the 2006 ICCAT recommendation, 06-02

Ecological Impacts

Under alternative 2a, the status quo would be maintained with the reserve category. This means that 82.7 mt dw would remain to be the reserve allocation, and 18.8 mt dw would continue to be transferred to Canada annually.

NMFS does not expect adverse ecological impacts from alternative 2a. As stated in the Ecological Impacts (Section 4.1), the North Atlantic swordfish stock is nearly rebuilt to Maximum Sustainable Yield (MSY) (B_{2006}/B_{MSY}=0.99). The SCRS 2006 North Atlantic stock assessment further reports that if current ICCAT TAC management strategies are maintained, the stock is likely to remain near the level that will produce MSY. (There is no reliable estimate of stock status for South Atlantic swordfish at this time).

Under alternative 2b, ICCAT recommendation 06-02 is followed which allows for a quota transfer within a fishing year of up to 15 percent of a CPCs TAC allocation to another CPC, consistent with domestic obligations and conservation considerations. Alternative 2b would transfer 15 percent, or 440.6 mt dw, of the 2007 U.S. North Atlantic swordfish baseline quota directly into the reserve. Thus, the total in the reserve would be 504.5 mt dw. 18.8 mt dw would contine to be transferred to Canada annually.

The 15 percent reserve transfer would come from the U.S. baseline quota, however, the total U.S. baseline quota would not change. Therefore, the action of transferring 15 percent of the baseline quota to the reserve is not expected to result in significant ecological impacts. After the 15 percent is placed in the reserve, ecological impacts of adopting alternative 2b would vary based on how the reserve quota is used. The reserve category may be used for inseason adjustments to other fishing categories, to compensate for projected or actual overharvest in any category, for fishery independent research, or for other purposes consistent with management objectives. First, if the 15 percent reserve transfer would be allocated toward another U.S. North Atlantic swordfish quota category (such as the directed category), fishing effort in that category could potentially increase leading to increased revenues for that category. Second, if the 15 percent reserve transfer is used to cover overharvest in another category, it would offer a buffer to also potentially increase revenue for that category as well as prevent overharvest in that category. Third, if the 15 percent reserve transfer is used for research, it would give the United States the opportunity to answer questions that cover scientific unknowns about swordfish stocks and their behavior. This would have a long term benefit on the swordfish fishery because it could enhance fishing techniques thereby augmenting the ability of the fishery to catch its full

quota. Because a 15 percent reserve transfer under the above three options would not change the total baseline quota allocated to the United States (Table 2.3), NMFS does not expect this alternative to have impacts different from alternative 2a.

As established above, the action of transferring quota to the reserve is not expected to have any ecological impacts. If the 15 percent transfer to the reserve is not used under the above three options, but transferred to another CPC, NMFS would consider and analyze those impacts under a separate rulemaking.

Under alternative alternative 2c, a request for transfer from another CPC, if approved, would come directly from the directed fishery quota and not from the reserve. The ecological impacts of 2c would vary depending on the quota and bycatch reduction measures of the receiving CPC. Since the United States does not expect to transfer any of its TAC allocation to a given CPC at this time, alternative 2c is not further analyzed in this rulemaking. If a country requests a transfer, NMFS would analyze the impacts in another rulemaking.

Social and Economic Impacts

Under alternative 2a, the North Atlantic directed swordfish fishery would have a quota of 4,042.5 mt dw and the reserve would be 63.9 mt dw. The directed quota would include 440.6 mt dw, instead of the reserve. If the quota under alternative 2a was fully realized, this would result in $33.6 million [(4,042.5 mt dw)*2204.6*$3.78] for the directed swordfish fishery. Alternative 2a would result in $3.7 million more than alternative 2b, if fully realized, which would result in $29.9 million for the directed swordfish fishery.

Under alternative 2b, NMFS does not expect any negative social or economic impacts to result from a 15 percent reserve transfer. As stated above, the reserve category may be utilized via several options: it may be used for inseason adjustments to other fishing categories, to compensate for projected or actual overharvest in any category, for fishery independent research, or for other purposes consistent with management objectives. Implementing alternatives 1b and 2b, transferring 15 percent of the U.S. baseline quota to the reserve, amounts to 3,601.9 mt dw for the North Atlantic directed swordfish fishery and 504.5 mt dw for the reserve during the 2007 fishing year (Table 2.4). The implementation of alternative 2b would therefore result in a potential loss of $3.7 million [(440.6 mt dw)*2204.6*$3.78] to the North Atlantic directed swordfish fishery. This loss may never be realized, as one of the three possible uses of the reserve would be to transfer it back to the directed swordfish quota. Another possible use of the reserve is to compensate for projected or actual overharvest in any swordfish quota category. This would potentially increase revenue in a given quota category, because it would make an allowance for extra swordfish to be harvested. Finally, if the reserve transfer is used for fishery independent research, increased revenues could potentially result from augmented fishing techniques that would ensue from better knowledge of swordfish stocks and their behavior.

Alternative 2b is favored over 2c, because placing 15 percent of the North Atlantic baseline quota directly into the reserve would replenish the reserve and also create a reliable directed fishery quota at the start of a given fishing season. If 2c were implemented, a 15 percent transfer (if it were made) out of the directed quota would not allow for the swordfish vessel owners and

directed permit holders to adequately plan for the upcoming fishing year due to sudden directed quota loss. For these reasons, NMFS does not expect adverse social and economic impacts to result from the alternative 2b. Since the United States does not expect to transfer any of its TAC allocation to a given CPC at this time, alternative 2c is not analyzed further in this rulemaking. If a country requests a transfer, NMFS would analyze the impacts in another rulemaking.

Conclusion

Alternative 2b is consistent with ICCAT recommendations, Magnuson-Stevens Act, ATCA, and the Consolidated HMS FMP (NMFS, 2006). NMFS does not expect alternative 2b to have ecological, social, or economic impacts different from the no action alternative in the short term because, depending on how the reserve is used, transferring quota might actually increase revenue in another quota category. In addition, alternative 2b would more adequately allow the fishery to plan for the upcoming fishing year.

4.3 Impacts on Essential Fish Habitat

As described in the Final Consolidated HMS FMP, pelagic longline gear is suspended in the water column and does not touch the bottom substrate (NMFS, 2006). Handgear such as rod and reel and buoy gear are also suspended in the water column and do not touch the bottom substrate. Because of the nature of these fishing gear types, it is unlikely that they would have an adverse effect on or alter fish habitat, including EFH and the habitat for prey species to the extent that physical effects can be identified on the habitat or the fisheries. Additionally, as these actions are not expected to change fishing practices or effort, this proposed rule is not expected to shift existing fishing effort in a manner that would result in adverse effects to EFH beyond those considered in the Consolidated HMS FMP.

4.4 Impacts on Other Finfish Species

As described in the sections above, the proposed action is not expected to significantly alter fishing practices or effort because the quota has been underharvested for several years. Therefore, these actions should not have any increased impact on other finfish species. As considered in the Consolidated HMS FMP (NMFS, 2006), the bycatch of finfish species is not expected to increase because the effort in the North and South Atlantic swordfish fishery is low. Effort is not expected to increase in the short term because of the current management restrictions for pelagic longline gear (i.e., time/area closures, limited access, and circle hooks). In the long term however, in combination with a separate action addressing swordfish retention limits and vessel upgrading restrictions, the proposed action would aid the commercial swordfish fishery in catching the full quota and will eliminate excessively large underharvest carryovers that have occurred in past years.

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

As described in this section, the proposed action is not expected to alter fishing practices or effort because the quota has been underharvested for several years. Thus, NMFS believes that these measures do not change the conclusion of, nor would they result in effects that have not

been considered in, the June 2004 and June 2001 BiOps. Similarly, the proposed action is not expected to change the number or rate of interactions with marine mammals since the baseline quotas are either being lowered (South Atlantic) or remaining the same (North Atlantic), and underharvest in both regions is capped. In December 2006, NMFS Office of Sustainable Fisheries reinitiated the Endangered Species Act (ESA) Section 7 consultation process for the U.S. Atlantic pelagic longline (PLL) fishery based on sea turtle take estimates which revealed that, under the incidental take statement (ITS), the PLL fishery may have exceeded allowable take for leatherback sea turtles. In March 2007, the NMFS Office of Protected Resources responded in stating that, based upon the current BiOp's jeopardy analysis and the available information about the PLL, continuing the PLL fishery during the reinitiation period will not result in jeopardy to leatherback or loggerhead sea turtles, and therefore is not in violation of sections 7(a)(2) and 7(d) of the Endangered Species Act.

4.6 Environmental Justice Concerns

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

4.7 Coastal Zone Management Act Concerns

NMFS has provided one consistency determination that addresses the commonalities and differences of each state's enforceable policies and finds this action to be consistent with all states reviewed. Pursuant to 15 CFR part 923 Subparts (B) through (F), NMFS has reviewed the enforceable policies relevant to the action of each state along the Atlantic coast, Gulf of Mexico, and Caribbean. As described below, NMFS finds this action to be consistent with the following policies contained in each state's CZMP: uses subject to management, special management areas, boundaries, authorities and organizations, and public involvement and national interest. In addition, NMFS finds this action to be consistent to the maximum extent practicable with the enforceable policies to manage, preserve, and protect the coastal natural resources, including fish and wildlife, and to provide recreational opportunities through public access to waters off the coastal areas. Specifically, under these enforceable policies, this action is consistent in that marine resources would be managed and preserved by establishing quotas and establishing amended season lengths.

4.8 Comparison of Alternatives

Table 4.1 **Comparison of Proposed Alternatives.** This table compares the impacts of the alternatives considered in this action. The symbols +, -, 0 refer to positive, negative, and neutral impacts respectively. NA refers to not analyzed. Minor impacts and impacts that are possible but unlikely are noted with + or -. Moderate impacts are noted with ++ or --, and significant impacts are noted with +++ or ---. Refer to the proceeding sections for details of the impacts of each alternative.

Management Measure	Ecological Impacts	Economic Impacts	Social Impacts
1a – maintain current baseline quota (no action)	-	0	0
1b: Preferred – implement North and South Atlantic swordfish quotas and underharvest provisions as outlined in ICCAT recommendations 06-02 and 06-03	0	-	-
2a – allocate no additional quota to the reserve	0	-	-
2b: Preferred – transfer 15 percent (440.6 mt dw) of the 2007 baseline U.S. North Atlantic swordfish allocation to the reserve	0	+	+
2c – establish procedures for possible implementation of the transfer provision outlined in ICCAT recommendation 06-02	NA	NA	NA

4.9 Cumulative Impacts

Cumulative impacts are the impacts on the environment, which result from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions. Cumulative impacts could result from individually minor but collectively significant actions taking place over a period of time (40 CFR § 1508.7). A cumulative impact includes the total effect on a natural resource, ecosystem, or human community due to past, present, and future activities or actions of Federal, non-Federal, public, and private entities. This section describes the cumulative impacts of past, present and reasonably foreseeable future actions with regard to the Atlantic swordfish fishery.

Taking into consideration the management measures implemented through the 1999 FMP for Atlantic Tunas, Swordfish, and Sharks, the August 2000 bycatch and time/area closure rule, the July 2004 rule implementing the BiOp measures (i.e., circle hooks, release gears, etc.), and the Consolidated HMS FMP, NMFS does not expect any adverse cumulative impacts from this proposed rule. These management measures were implemented primarily to reduce bycatch mortality in the PLL fishery. The cumulative impacts of these measures on the PLL fishery have

had the unintended effect of preventing the U.S. from harvesting its full ICCAT-recommended domestic swordfish quota since 2000, despite the improved stock status of the species.

NMFS is currently undertaking a rulemaking to amend these measures governing the North Atlantic swordfish fishery to provide additional opportunities for U.S. vessels to more fully utilize the U.S. North Atlantic swordfish quota, in recognition of the improved stock status of the species (November 28, 2006; 71 FR 68784). The aforementioned final rule will increase swordfish retention limits for Incidental swordfish permit holders and modify recreational swordfish retention limits for HMS Charter/Headboat (CHB) and Angling category permit holders. It will also modify HMS limited access vessel upgrading restrictions for vessels concurrently issued certain HMS permits. These actions are necessary to address persistent underharvests of the domestic North Atlantic swordfish quota, while continuing to minimize bycatch to the extent practicable, so that swordfish are harvested in a sustainable, yet economically viable manner.

NMFS believes that the proposed action, in combination with the rulemaking to revitalize the swordfish fishery, will have positive cumulative effects. The rulemaking to revitalize the swordfish fishery would relax some past management measures, which had the unintended consequence of being too restrictive as to cause persistent, large underharvest carryovers in each fishing year. Preferred alternative 1b, if implemented, would cap underharvest carryovers thereby preventing the exponentially large carryovers that had occurred in the past. This brings adjusted quotas into a more attainable realm, thereby bringing the full realization of quota harvests within reach when combined with relaxed management restrictions. The resulting effect would be that the swordfish fishery could again catch its full quota. The status quo alternative 1a, if implemented, would continue to allow for large underharvest carryover. This could potentially increase the adjusted swordfish quotas beyond levels attainable by the fishery, even in combination with the rulemaking to revitalize the industry.

This proposed action is not expected to change current fishing practices or effort and would not likely result in increased bycatch levels. Because NMFS is not altering the current restrictions on the PLL fishery or increasing quotas in this action, the adjusted quotas are not expected to substantially increase effort. However, in combination with the rulemaking to revitalize the swordfish industry, increased effort could result. NMFS would continue to monitor effort levels in the PLL fishery and would take action as needed if effort levels, and therefore interactions with protected species or other bycatch, increase. In December 2006, NMFS Office of Sustainable Fisheries reinitiated the Endangered Species Act (ESA) Section 7 consultation process for the U.S. Atlantic pelagic longline (PLL) fishery based on sea turtle take estimates which revealed that, under the incidental take statement (ITS), the PLL fishery may have exceeded allowable take for leatherback sea turtles. In March 2007, the NMFS Office of Protected Resources responded in stating that, based upon the current BiOp's jeopardy analysis and the available information about the PLL, continuing the PLL fishery during the reinitiation period will not result in jeopardy to leatherback or loggerhead sea turtles, and therefore is not in violation of sections 7(a)(2) and 7(d) of the Endangered Species Act.

As described in alternatives 2b and 2c, in the future, NMFS may consider a one-time quota transfer within a fishing year of up to 15 percent of the U.S. baseline quota, consistent with

domestic obligations and conservation considerations. Alternatives 2b and 2c provide for two different mechanisms from which to provide the transfer. Under alternative 2b, the transfer would come out of the reserve quota. Under alternative 2c, the transfer would come out of the directed fishery quota. Regardless, the U.S. baseline quota allocation does not change. The effects of the transfer to another CPC were not analyzed in this action since NMFS has not decided to undergo a transfer at this time, however, a transfer is a foreseeable future action.

If NMFS would decide to transfer 15 percent of the U.S. quota (either from the reserve under alternative 2b or from the directed quota under alternative 2c) to another CPC, the domestic baseline quota allocation would, in effect, decrease by 15 percent. This could have the effect of bringing the full utilization of the swordfish quota within reach. However, should the swordfish revitalization rulemaking prove extremely effective, when combined with a transfer, the U.S. swordfish fishery could potentially lose revenue. Furthermore, if NMFS should decide to make a transfer to another CPC the domestic fishery could receive added benefits such as negotiated access to that country's Exclusive Economic Zone, or other economic benefits.

5.0 MITIGATION AND UNAVOIDABLE ADVERSE IMPACTS

5.1 Mitigating Measures

This action does not propose any mitigating measures for establishing quotas and underharvest carryover caps for future years, or allocating quota to the reserve for a potential one-time transfer of 15 percent of the baseline U.S. North Atlantic swordfish quota. NMFS currently has several restrictions in place for the pelagic longline fishery, such as time/area closures, limited access permits, circle hook requirements, and sea turtle handling and release protocols. NMFS does not expect the proposed action to have any major adverse ecological, economic, or social impacts because the actions are similar to the current regulations. Moreover, NMFS would continue to monitor the pelagic longline fishery and would take action if interactions with protected species, or other bycatch, increase.

5.2 Unavoidable Adverse Impacts

The proposed action assists NMFS in achieving the objective of this rulemaking and the Magnuson-Stevens Act, but would have unavoidable adverse impacts, such as sea turtle and marine mammal bycatch and bycatch mortality. Because the proposed action is not expected to alter fishing practices, NMFS expects the bycatch and bycatch mortality of endangered species or marine mammals to be within the estimated mortalities of the incidental take statement considered in the June 2001 Biological Opinion (BiOp) on Atlantic HMS Fisheries and the June 2004 BiOp for the HMS pelagic longline fisheries. In addition, per Office of Sustainable Fisheries consultation with NMFS Protected Resources, the PLL fishery as it is currently operating during reinitiating of consultation regarding leatherback turtles is not likely to jeopardize the continued existence of leatherback sea turtles or result in the destruction or adverse modification of its critical habitat.

5.3 Irreversible and Irretrievable Commitment of Resources

The preferred alternative would assist NMFS 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 addresses the economic impacts of the proposed alternative for North and South Atlantic swordfish. This analysis concentrates on the commercial fishery because at this time the recreational fishery does not contribute significantly to total swordfish landings.

6.1 Number of Fishing and Dealer Permit Holders

The commercial fishery is comprised 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 NMFS considers to be small entities. In February 2006, there were approximately 191 fishermen with a directed swordfish limited access permit, 86 fishermen with an incidental swordfish limited access permit, and 88 fishermen with a handgear limited access permit for swordfish (NMFS, 2006). By contrast, in 2001, there were approximately 208 fishermen with a directed swordfish limited access permit, 112 fishermen with an incidental swordfish limited access permit, and 100 fishermen with a handgear limited access permit for swordfish (NMFS, 2006). Not only has the number of permits declined, the number of active pelagic longline vessels is significantly less than the number of permits issued. 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.

Additionally, the number of swordfish dealer permits has also declined from 321 permits in 2002 to 285 permits in 2006 (NMFS, 2006). The primary concentration of dealers is in Florida, followed by California, Massachusetts, and New York. There are also U.S. swordfish dealers in Canada and Chile.

6.2 Gross Revenue of Fishermen

The Table 6.1 is an excerpt from Table 3.77 in the 2006 Final Consolidated HMS FMP and Table 2.1 above showing the Atlantic swordfish gross revenue trend from 1996 through 2005, as well as the average East coast swordfish ex-vessel price and weight (NMFS, 2006).

Table 6.1 Atlantic Swordfish Ex-vessel Price per Pound, Weight, and Revenue.

Swordfish*	1996	1999	2000	2001	2002	2003	2004	2005
Ex-vessel $/lb dw	$3.77	$3.38	$3.51	$3.74	$3.20	$3.13	$3.57	$3.71
Weight lb dw	7,170,619	5,942,839	4,832,384	5,662,350	5,985,489	4,668,466	4,317,369	3,814,905
Fishery Revenue	$27,033,234	$20,104,498	$16,974,346	$21,153,927	$19,150,819	$14,600,627	$15,391,422	$14,153,299

* Estimates do not include dead discards.

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 in Volume II of the Final Consolidated HMS FMP (NMFS, 2006). Beginning in 2003, NMFS 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

Preferred alternative 1b maintains the 2007 baseline North Atlantic swordfish quota at 2,937.6 mt dw and decreases the 2007 baseline South Atlantic swordfish quota to 75.2 mt dw. Assuming that quota amounts can be fully caught in the 2007 fishing year and using the average South Atlantic ex-vessel price of swordfish per pound dressed weight ($3.78), the South Atlantic swordfish quota decrease would reduce revenues by approximately $125,000. The North Atlantic swordfish monetary value would remain approximately the same. Through the implementation of underharvest carryover caps, the commercial swordfish industry could lose potential revenues that might be realized if unlimited carryover amounts were still allowed. In the short term, NMFS does not expect fishery effort to increase by maintaining the North Atlantic baseline quota and decreasing the South Atlantic baseline quota, or from capping underharvest carryovers. However, in the future and in combination with a separate rulemaking, the caps will help the fishery be able to take their full quota without large carryovers. This would be a benefit at future ICCAT meetings to maintain or increase U.S. TAC allocations. Thus, maintaining the baseline quota for the North Atlantic and decreasing the baseline quota for the South Atlantic is unlikely to change the economic benefits or cost to individual fishermen or communities.

Preferred alternative 2b would transfer 15 percent of the U.S. baseline quota to the reserve. As mentioned in Section 4.2, implementing both alternatives 1b and 2b, amounts to 3,601.9 mt dw for the North Atlantic directed swordfish fishery and 504.5 mt dw for the reserve during the 2007 fishing year (Table 2.4). However, if the status quo is maintained, the North Atlantic directed swordfish fishery would have a larger quota of 4,042.5 and the reserve would be 63.9 mt dw. The implementation of alternative 2b would therefore result in a potential loss of $3.7 million [(440.6 mt dw)*2204.6*$3.78] to the North Atlantic directed swordfish fishery. However, given that the pelagic longline fleet has not fully harvested the directed quota recently, the full economic loss calculated above would not likely be realized. Thus, transferring 15 percent of the U.S. baseline quota to the reserve alone is unlikely to change the economic benefits or cost to individual fishermen or communities. However, if the 15 percent transfer were made to another country, the full $3.7 million in revenue for the fishery would be lost and prices may decline as a result of potentially greater international supply of swordfish. This could potentially be balanced in negotiations with the receiving CPC, such as access to that country's waters or other potential benefits. Such considerations would be analyzed in a separate rulemaking.

In considering the proposed action, NMFS does not expect significant positive or negative economic impacts. Currently, the United States does not catch its entire quota. The net impact of the alternative results in a quota level that is greater than current catches. Thus, the overall economic impact is minimal.

7.0 REGULATORY IMPACT REVIEW

7.1 Description of the Management Objectives

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

7.2 Description of the Fishery

Please see Section 3 and the Final Consolidated HMS FMP 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

NMFS does not believe that the national net benefits and costs would change significantly in the long run as a result of implementing the selected alternatives compared to the baseline of no action. The actions considered implement ICCAT recommendations 06-02 and 06-03 which set baseline quotas, cap underharvest carryovers, and transfer 15 percent of the baseline quota into the reserve. The action also adjusts the 2006 fishing year based on previous fishing years' underages. Table 7.1 indicates possible changes as a result of each alternative. Alternative 1a maintains the status quo regarding baseline quotas and underharvest carryovers. Alternative 1b implements ICCAT recommendations to amend baseline quotas and cap underharvest carryovers. Alternative 2a maintains the status quo regarding the North Atlantic reserve category. Alternative 2b transfers 15 percent of the U.S. North Atlantic baseline quota to its reserve category. Alternative 2c establishes procedures for transferring 15 percent of the U.S. North Atlantic baseline quota, but does not transfer the quota to the reserve.

Table 7.1 Summary of benefits and costs for each alternative.

Management Measure	Net Economic Benefits	Net Economic Costs
1a: Maintain current baseline quota (No Action)	*Long-term*: Positive, could potentially increase revenue if the swordfish industry is revitalized and is able to catch its full quota *Short-term*: None.	*Long-term*: Negative, potentially lose quota allocation from ICCAT which limits potential to increase revenue. *Short-term*: None.
1b: *Implement North and South Atlantic swordfish quotas and underharvest provisions as outlined in ICCAT recommendations 06-02 and 06-03* **Preferred**	*Long-term:* Positive, maintains quota allocation from ICCAT and could aid the swordfish industry in catching its full quota in combination with a separate rulemaking addressing retention limits and vessel upgrading restrictions. *Short-term:* None.	*Long-term*: None. *Short-term*: Negative, potential loss of revenue.
2a: Allocate no additional quota to the reserve category (No Action)	*Long-term*: None. *Short-term*: None.	*Long-term*: Negative, potential depletion of entire reserve with 18.8 mt dw yearly transfer to Canada. *Short-term*: None.
2b: *Transfer 15 percent (440.6 mt dw) of the 2007 baseline U.S. North Atlantic swordfish allocation to the reserve category* **Preferred**	*Long-term*: Positive, replenishes the reserve which used for inseason adjustments to other fishing categories, to compensate for projected or actual overharvest in any category, for fishery independent research, or for other purposes consistent with management objectives. In addition, transfers could potentially be balanced in negotiations with the potential receiving CPC, such as access to that country's waters or other potential economic benefits. *Short-term*: Positive, reserve may immediately be used for inseason adjustments to other fishing categories, to compensate for projected or actual overharvest in any category, for fishery independent research, or for other purposes consistent with management objectives.	*Long-term*: Negative, because if the entire 15 percent is given to another CPC, and not used to compensate quotas in other U.S. North Atlantic swordfish categories, potential loss of revenue could result. *Short-term*: None, because the U.S. North Atlantic swordfish fishery is not currently catching its full quota.
2c: Establish procedures for possible implementation of the transfer provision outlined in the 2006 ICCAT recommendation, 06-02 (Not Selected)	*Long-term*: Positive, the 15 percent transfer may or may not be taken from the directed fishery in any given year. *Short-term*: None.	*Long-term*: None. *Short-term*: Negative, an immediate transfer will be deducted from the directed quota, rather than the reserve, resulting in lost options to the directed swordfish fishery.

7.6 Summary

Under E.O. 12866, a regulation is a "significant regulatory action" if it is likely to: (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; and (3) materially alter the budgetary impact of entitlements, grants, user fees, or loan programs or the legal mandates, the President's priorities, or the principles set forth in the Executive Order. The preferred alternatives described in this document do not meet the above criteria. Therefore, under E.O. 12866, the preferred alternatives described in this document have been determined to be not significant for the purposes of E.O. 12866. A summary of the expected net economic benefits and costs of each alternative, which are based on supporting text in Chapters 4 and 6, can be found in Table 7.1.

8.0 Initial Regulatory Flexibility Analysis

The Initial Regulatory Flexibility Analysis (IRFA) is conducted to comply with the Regulatory Flexibility Act (5 USC 601 et. seq.) and provides a description of the economic impacts of the various alternatives on small entities. Certain elements required in an IRFA are also required as part of an environmental assessment (EA). Therefore, the IRFA incorporates the economic impacts identified in the EA.

8.1 Description of the Reasons Why Action is Being Considered

Please see Chapter 1 for a description of the need for action.

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

Please see Chapter 1 for a description of the objective of the proposed rule.

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

NMFS considers all HMS permit holders to be small entities because they either had gross receipts less than $4.0 million for fish-harvesting, gross receipts less than $6.5 million for charter/party boats, or 100 or fewer employees for wholesale dealers. These are the Small Business Association (SBA) size standards for defining a small versus large business entity in this industry. As described in Chapter 6 there are approximately 365 fishermen who hold swordfish permits.

8.4 Description of the Projected Reporting, Record-keeping, and Other Compliance Requirements of the Proposed Rule, Including an Estimate of the Classes of Small Entities Which Would Be Subject to the Requirements of the Report or Record

None of the alternatives considered for this proposed rule would result in additional reporting, record-keeping, and compliance requirements that would require new Paperwork Reduction Act filings. In response to public complaints about the burden of Federal paperwork, the Paperwork Reduction Act (PRA) and its implementing regulations require OMB clearance for any planned information collections. Clearances are needed for voluntary collections as well as for mandatory ones. The following types of collections need clearances: 1) obtaining facts or opinions from ten or more persons by the use of standard questions presented in forms, telephone or personal

interviews, World-Wide-Web Home Pages, requests for narrative responses to questions, or almost any other means; The "ten or more" rule is irrelevant for any requirement addressed to all or a substantial majority of an industry; e.g. if there are only five main companies in a particular industry, OMB approval is required for collection of information from them; 2) requiring members of the public to provide information to the general public or to some third party; 3) imposing any requirements to label or mark items (e.g. boxes of fish, fishing gear, etc.) or vessels (e.g. vessel identification numbers); 4) requiring any use of technological methods to monitor public compliance with government requirements, as well as to automated collection techniques.

8.5 Identification of All Relevant Federal Rules Which May Duplicate, Overlap, or Conflict with the Proposed Rule

Fishermen, dealers, and managers in these fisheries must comply with a number of international agreements, domestic laws, and other FMPs. These include, but are not limited to, the Magnuson-Stevens Act, the Atlantic Tunas Convention Act, the High Seas Fishing Compliance Act, the Marine Mammal Protection Act, the Endangered Species Act, the National Environmental Policy Act, the Paperwork Reduction Act, and the Coastal Zone Management Act. NMFS strives to ensure consistency among the regulations with Fishery Management Councils and other relevant agencies. NMFS does not believe that the new regulations proposed to be implemented would conflict with any relevant regulations, federal or otherwise.

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

One of the requirements of an IRFA is to describe any alternatives to the proposed rule which accomplish the stated objectives and which minimize any significant economic impacts. These impacts are discussed below and in Chapters 4 and 6 of this document. Additionally, the Regulatory Flexibility Act (5 U.S.C. § 603 (c) (1)-(4)) lists four general categories of "significant" alternatives that would assist an agency in the development of significant alternatives. These categories of alternatives are:

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

In order to meet the objectives of this proposed rule, consistent with Magunson-Stevens Act and other applicable law, NMFS cannot exempt small entities or change the reporting requirements only for small entities. Thus, there are no alternatives discussed that fall under the first and fourth categories described above. In addition, none of the alternatives considered would result in additional reporting or compliance requirements (category two above). NMFS does not know of any performance or design standards that would satisfy the aforementioned objectives of this

rulemaking while, concurrently, complying with the Magnuson-Stevens Act and other applicable law. As described below, NMFS analyzed five different alternatives in this proposed rulemaking and provides justification for selection of the preferred alternatives (1b and 2b) to achieve the desired objective.

The alternatives included are: maintain current baseline quota (alternative 1a, No Action); implement North and South Atlantic swordfish quotas and underharvest provisions as outlined in ICCAT recommendations 06-02 and 06-03 (alternative 1b); allocate no additional quota to the reserve category (alternative 2a, No Action); transfer 15 percent (440.6 mt dw) of the 2007 baseline U.S. North Atlantic swordfish allocation to the reserve category (alternative 2b); and establish procedures for possible implementation of the transfer provision outlined in the 2006 ICCAT recommendation 06-02 (alternative 2c). Implementing North and South Atlantic swordfish quotas and underharvest provisions as outlined in ICCAT recommendations 06-02 and 06-03 (alternative 1b) and transferring 15 percent (440.6 mt dw) of the 2007 baseline U.S. North Atlantic swordfish allocation to the reserve category (alternative 2b) are the preferred alternatives.

Alternatives Considered for Quotas and Underharvest Carryovers

Alternative 1a is considered the no action alternative since it would maintain existing baseline quotas for North and South Atlantic swordfish, as well as carryover entire underharvests in future fishing years (e.g. 2007 and beyond). This alternative is not preferred because it would fail to comply with international obligations under ICCAT, possibly jeopardizing the future of available U.S. quotas.

Maintaining existing baseline quotas would fail to decrease the South Atlantic recommended baseline quota (06-03) from 90.2 mt dw to 75.2 mt dw. Furthermore, failing to cap overharvests consistent with ICCAT recommendations 06-02 and 06-03 would result in carryover that would more than double what is internationally-recommended.

Alternative 1b, the preferred alternative, which would implement North and South Atlantic swordfish quotas and underharvest provisions as outlined in ICCAT recommendations 06-02 and 06-03, would be in line with what the United States has committed to internationally. North Atlantic underharvest carryovers would be capped at 50 percent of the 2007 and 2008 baseline quota allocations (1,468.8 mt dw); additionally, South Atlantic underharvest carryovers would be capped at 100 mt (75.2 mt dw) for 2007 and 2008. In addition, alternative 2b would allow for 2,022.56 mt dw of the U.S. 2005 North Atlantic underharvest to be redistributed among other CPCs in 2007 (1,011.28 mt dw) and 2008 (1,011.28 mt dw), consistent with ICCAT recommendation 06-02.

By applying caps and baseline quotas recommended in ICCAT 06-02 and 06-03 for 2007, prices for fully realized quota harvests can be calculated in order to compare the application of alternative 1a versus 1b. Application of alternative 1b versus 1a results in a difference of $45.3 million for the North Atlantic swordfish fishery in 2007 if harvests are fully realized (calculation in 4.1). Application of alternative 1b versus 1a results in a difference of $0.14 million for the South Atlantic swordfish fishery in 2007 if harvests are fully realized (calculation in 4.1).

However, the pelagic longline fleet has been unable to catch the entire U.S. swordfish quota causing significant amounts to be carried over in past fishing years. For example, the amount of total underharvest during years 2004-2006 was 3,528.8 mt dw, 4,806.1 mt dw, and 6,905.9 mt dw respectively (Table 2.1). However, in the long term, the preferred alternative 1b may provide the U.S. swordfish fishery with the opportunity to catch its full quota, because excessive underharvest carryovers would not occur as they did in the past. In conclusion, maintaining the North Atlantic baseline quota, decreasing the South Atlantic baseline quota, and capping underharvest carryovers in the both swordfish fisheries would not have adverse impacts on a large number of small entities.

Alternatives Considered for Quota Transfers

Alternative 2a is considered the no action alternative since it would maintain the reserve category whereby no new quota allocations would replenish the reserve. This alternative is not preferred, as it would fail to comply with international obligations under ICCAT, possibly jeopardizing the future of available U.S. quotas. In addition, the 18.8 mt dw per year transfer to Canada would continue to draw on the reserve.

The reserve has four stated uses (50 CFR 635.27(c)(1)(i)(D)). Quota in the reserve category may be used for inseason adjustments to other fishing categories, to compensate for projected or actual overharvest in any category, for fishery independent research, or for other purposes consistent with management objectives. The status quo alternative, in and of itself, does not create any new economic burdens on the North Atlantic commercial swordfish fishery, however, if the reserve were to be completely depleted in future fishing years, its four stated uses could not be implemented to economically aid the fishery. For example, other swordfish quota categories could not be aided by substituted quota from the reserve and dead discard overharvests may not be covered.

Alternative 2b would transfer 15 percent (440.6 mt dw) of the 2007 baseline U.S. North Atlantic swordfish allocation to the reserve category. This would replenish the reserve and make it available for its four stated uses.

Alternative 2c would establish procedures for possible implementation of the transfer provision outlined in the 2006 ICCAT recommendation 06-02 to handle transfer requests or offers by other CPCs. This alternative differs from alternative 2b, in that 2c would not place 15 percent of the North Atlantic baseline quota directly into the reserve. Rather, if the situation arose for a needed transfer, up to 15 percent transfer would be made from the directed quota category. Alternative 2b is favored over 2c, because placing 15 percent of the North Atlantic baseline quota directly into the reserve would replenish the reserve and also create a reliable directed fishery quota at the start of a given fishing season. If 2c were implemented, a 15 percent transfer (if it were made) out of the directed quota would not allow for the swordfish vessel owners and directed permit holders to adequately plan for the upcoming fishing year due to sudden directed quota loss.

Overall, Alternative 2b would replenish a reserve that would otherwise become depleted in future fishing years through the committed 18.8 mt dw transfer to Canada annually. This frees up three options with which to use the 15 percent (440.6 mt dw) allocated reserve quota. Quota

in the reserve category may be used for inseason adjustments to other fishing categories, to compensate for projected or actual overharvest in any category, for fishery independent research, or for other purposes consistent with management objectives. Placing 15 percent of the 2007 and 2008 baseline quota directly into the reserve would create a reliable directed fishery quota at the beginning of a given season, as well as provide opportunity to cover other U.S. North Atlantic swordfish quota categories should the situation arise. Implementing alternatives 1b and 2b, transferring 15 percent of the U.S. baseline quota to the reserve, amounts to 3,601.9 mt dw for the North Atlantic directed swordfish fishery and 504.5 mt dw for the reserve during the 2007 fishing year (Table 2.4). However, if alternative 2b is not implemented, the North Atlantic directed swordfish fishery would have a larger quota of 4,042.5 mt dw and the reserve would be 63.9 mt dw. The implementation of alternative 2b would therefore result in a potential loss of $3.7 million in revenue to the North Atlantic directed swordfish fishery (calculation in 4.2). NMFS does not expect fishing effort to increase in the short term by maintaining the North Atlantic baseline quota and decreasing the South Atlantic baseline quota, or from capping underharvest carryovers in the both swordfish fisheries. However, in the future and in combination with a separate rulemaking, the caps will help the fishery be able to take their full quota without large carryovers. As previously stated, one of the three possible uses of the reserve would be to transfer it back to the directed swordfish quota, solving this potential economic loss to the North Atlantic directed swordfish fishery. 2b is preferred over 2c because it minimizes any economic impact and complies with international obligations.

9.0 COMMUNITY PROFILES

Mandates to conduct social impact assessments come from both the National Environmental Policy Act (NEPA) and the Magnuson-Stevens Act. The Final Consolidated HMS FMP indicates that the following towns should be considered for in-depth analysis due to the importance of the pelagic longline fishery: Gloucester and New Bedford, Massachusetts; Barnegat Light, New Jersey; and Wanchese, North Carolina. Detailed information for each community can be found in the Final Consolidated HMS FMP and is not repeated here (NMFS 2006). The anticipated impacts of the proposed action would be minor in all of these communities. Because the current quota is underharvested, there are no significant economic or social impacts expected from increasing the quota.

10.0 OTHER CONSIDERATIONS

10.1 National Standards

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

This proposed rule is consistent with NS 1 in that, according to the latest stock assessment, it would prevent the overfishing of swordfish in the Atlantic Ocean. Because the alternatives are based on the results of the 2006 ICCAT SCRS stock assessment, the alternatives considered are based on the best scientific information available (NS 2), including self-reported, observer, and stock assessment data which provide for the management of the species throughout its ranges

(NS 3). The proposed alternatives do not discriminate against fishermen in any state (NS 4) nor do they alter the efficiency in utilizing the resource (NS 5). With regard to NS 6, the proposed alternatives take into account any variations that may occur in the fishery and the fishery resources. Additionally, NMFS considered the costs and benefits of these management measures economically and socially under NS 7 and 8 in sections 6, 7, 8, and 9 of this document. The proposed measures ensure that bycatch is accounted for in the Atlantic swordfish fisheries and that NMFS has considered the impact on protected species (NS 9). Finally, the proposed rule would not require fishermen to fish in an unsafe manner (NS 10).

10.2 Paperwork Reduction Act

This action does not contain any new collection-of-information requirements for purposes of the Paperwork Reduction Act.

10.3 Federalism

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

11.0 LIST OF PREPARERS

This document was prepared by the Highly Migratory Species Management Division in the Office of Sustainable Fisheries, National Marine Fisheries Service. Individuals in other offices within NOAA contributed, including the Office of General Counsel.

12.0 LIST OF AGENCIES AND PERSONS CONSULTED

Discussions pertinent to formulation of the proposed action involved input from a variety of scientific and constituent interest groups including the U.S. delegation to ICCAT (including commercial and recreational fishermen, and environmental advocates), ICCAT's SCRS, ICCAT (35 member states), and staff from the International Fisheries Division of NMFS and the NOAA's General Counsel for Fisheries.

13.0 REFERENCES

NMFS. 2006. Final Consolidated Atlantic Highly Migratory Species Management Plan. National Oceanic and Atmospheric Administration, National Marine Fisheries Service, Office of Sustainable Fisheries, Highly Migratory Species Management Division, Silver Spring, MD. Public Document. 1600 pp.

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