

DRAFT

**OPTIONS PAPER
FOR AMENDMENT 18
TO THE COASTAL MIGRATORY
PELAGICS FISHERY MANAGEMENT PLAN**

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ABBREVIATIONS USED IN THE DOCUMENT

ABC	Acceptable Biological Catch
ACCSP	Atlantic Coast Cooperative Statistics Program
ACL	Annual Catch Limits
ACT	Annual Catch Targets
AM	Accountability Measures
B_{MSY}	Stock biomass level capable of producing an equilibrium yield of MSY
CMP	Coastal Migratory Pelagics
EEZ	Exclusive Economic Zone
ENGO	Environmental Nongovernment Organization
F	Instantaneous rate of fishing mortality
FDEP	Florida Department of Environmental Protection
F_{MSY}	Fishing mortality rate corresponding to an equilibrium yield of MSY
F_{OY}	Fishing mortality rate corresponding to an equilibrium yield of OY
FMP	Fishery Management Plan
GMFMC	Gulf of Mexico Fishery Management Council
MAFMC	Mid-Atlantic Fishery Management Council
MFMT	Maximum Fishing Mortality Threshold
MSAP	Mackerel Stock Assessment Panel
MRFSS	Marine Recreational Fisheries Survey and Statistics
M-SFCMA	Magnuson-Stevens Fishery Conservation and Management Act
MSST	Minimum Stock Size Threshold
MSY	Maximum Sustainable Yield
NMFS	NOAA's National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
OFL	Over Fishing Limit
OY	Optimum Yield
RA	Regional Administrator
SAFMC	South Atlantic Fishery Management Council
SEDAR	Southeast Data, Assessment and Review
SEFSC	Southeast Fisheries Science Center
SSC	Scientific and Statistical Committee
SSB	Spawning Stock Biomass
SPR	Spawning Potential Ratio
TAC	Total Allowable Catch

1.0 INTRODUCTION

The Magnuson-Stevens Reauthorization Act (MSRA) of 2006 established new requirements to end and prevent overfishing through the use of annual catch limits (ACLs) and accountability measures (AMs). Implementation of ACL/AM provisions must begin in 2010 or earlier for stocks subject to overfishing, and in 2011 or earlier for all other stocks under federal management. The final rule to amend the National Standard 1 Guidelines for setting ACLs and AMs also indicates that for species not undergoing overfishing, the mechanisms and values for ACLs and AMs must be specified in FMPs, FMP amendments, implementing regulations, or annual specifications beginning in fishing year 2011 (see Section(2)(A) in the center column on page 3211).

The Gulf of Mexico Fishery Management Council (GMFMC), the South Atlantic Fishery Management Council (SAFMC), and the Mid-Atlantic Fishery Management Council (MAFMC) are preparing to amend the Coastal Migratory Pelagics Fishery Management Plan (CMP FMP) by consideration of actions as stated and discussed below. The primary action under consideration in Amendment 18 would establish annual catch limits (ACL) and accountability measures (AM) for the following managed species:

King mackerel, *Scomberomorus cavalla*
Spanish mackerel, *Scomberomorus maculatus*
Cobia, *Rachycentron canadum*

Amendment 18 also considers removal or a change in status of the following species that are currently included in the CMP FMP for data collection purposes:

Bluefish, *Pomatomus saltatrix* (Gulf of Mexico only)
Cero, *Scomberomorus regalis*
Little tunny, *Euthynnus alleteratus*
Dolphin*, *Coryphaena hippurus* (Gulf of Mexico only)

*Note: Dolphin in the South Atlantic, Mid-Atlantic, and New England Fishery Management Council's jurisdictions are managed under the Dolphin and Wahoo Fishery Management Plan with the southern boundary at the border between the Gulf and South Atlantic Councils.

In addition to setting ACLs and AMs, Amendment 18 contains alternatives to modify the framework procedure to incorporate the Southeast Data Assessment and Review process; allow for adjustments of the overfishing level (OFL), ACLs, AMs, and possibly annual catch targets (ACTs); remove language that indicates cobia are a unit stock in the Gulf and Atlantic; and to make other adjustments to bring the CMP FMP into full compliance with the Magnuson-Stevens Fishery Conservation and Management Act (M-SFCMA) and be consistent with best available science and current management practices.

2.0 PURPOSE AND NEED

Revisions to the M-SFCMA in 2006 require establishment of a mechanism for specifying ACLs at levels that prevent overfishing and do not exceed the recommendations of the respective Council's Scientific and Statistical Committee (SSC) or other established peer review processes for all managed species. It also requires setting measures to ensure accountability. The AMs are management controls that ensure that the ACLs are not exceeded; or if the ACL is exceeded corrective measures are taken to prevent overfishing. Since none of the managed species under the CMP FMP are considered to be undergoing overfishing or are designated as overfished, the councils have until the 2011 fishing year to implement ACLs and AMs.

The current framework procedure is out-of-date in that it contains procedures and reviews that are no longer being conducted in the manner described, i.e., stock assessments. It also includes a species group that is currently managed by an FMP other than the Coastal Migratory Pelagics FMP, i.e., dolphin. Additionally, it indicates that cobia are a unit stock that should be managed throughout its range in the Gulf and Atlantic; however, best available science supports separate management in the Gulf and Atlantic. Other changes are needed to fully comply with the Sustainable Fisheries Act of 1996 and the Magnuson-Stevens Reauthorization Action of 2006. By being able to modify these parameters through framework actions, the Councils can more expeditiously respond to changing scientific advice as may be dictated by future stock assessments.

3.0 HISTORY OF MANAGEMENT

The CMP FMP, with Environmental Impact Statement (EIS), was approved in 1982 and implemented by regulations effective in February of 1983. Managed species included king mackerel, Spanish mackerel, and cobia. The FMP treated king and Spanish mackerel as unit stocks in the Atlantic and Gulf of Mexico. The FMP established allocations for the recreational and commercial sectors harvesting these stocks, and the commercial allocations were divided between net and hook-and-line fishermen.

FMP Amendments

Amendment 1, with EIS, implemented in September of 1985, provided a framework procedure for pre-season adjustment of TAC, revised the estimate of king mackerel maximum sustainable yield (MSY) downward, recognized separate Atlantic and Gulf migratory groups of king mackerel, and established fishing permits and bag limits for king mackerel. Commercial allocations among gear users, except purse seines that were allowed 6% of the commercial allocation of TAC, were eliminated. The Gulf commercial allocation for king mackerel was divided into Eastern and Western Zones for the purpose of regional allocation, with 69% of the remaining allocation provided to the Eastern Zone and 31% to the Western Zone. Amendment 1 also established minimum size limits for Spanish mackerel at 12 inches fork length (FL) or 14 inches total length (TL) and for cobia at 33 inches FL or 37 inches TL.

Amendment 2, with environmental assessment (EA), implemented in July of 1987, revised Spanish mackerel MSY downward, recognized two migratory groups, established allocations of TAC for the commercial and recreational sectors, and set commercial quotas and bag limits.

Charterboat permits were required, and it was clarified that TAC must be set below the upper range of acceptable biological catch (ABC). The use of purse seines on overfished stocks was prohibited, and their allocation of TAC was redistributed under the 69%/31% split.

Amendment 3, with EA, was partially approved in August 1989, revised, resubmitted, and approved in April 1990. It prohibited drift gill nets for coastal pelagics and purse seines for the overfished groups of mackerels.

Amendment 4, with EA, implemented in October 1989, reallocated Atlantic group Spanish mackerel equally between recreational and commercial fishermen.

Amendment 5, with EA, implemented in August 1990, made the following changes in the management regime:

- Extended the management area for Atlantic groups of mackerels through the MAFMC's area of jurisdiction;
- Revised problems in the fishery and plan objectives;
- Revised the fishing year for Gulf Spanish mackerel from July-June to April-March;
- Revised the definition of "overfishing";
- Added cobia to the annual stock assessment procedure;
- Provided that the SAFMC will be responsible for pre-season adjustments of TACs and bag limits for the Atlantic migratory groups of mackerels while the GMFMC will be responsible for Gulf migratory groups;
- Continued to manage the two recognized Gulf migratory groups of king mackerel as one until management measures appropriate to the eastern and western groups can be determined;
- Re-defined recreational bag limits as daily limits;
- Deleted a provision specifying that bag limit catch of mackerel may be sold;
- Provided guidelines for corporate commercial vessel permits;
- Specified that Gulf group king mackerel may be taken only by hook-and-line and run-around gill nets;
- Imposed a bag and possession limit of two cobia per person per day;
- Established a minimum size of 12 inches (30.5 cm) FL or 14 inches (35.6 cm) TL for king mackerel and included a definition of "conflict" to provide guidance to the Secretary.

Amendment 6, with EA, implemented in November of 1992, made the following changes:

- Identified additional problems and an objective in the fishery;
- Provided for rebuilding overfished stocks of mackerels within specific periods;
- Provided for biennial assessments and adjustments;
- Provided for more seasonal adjustment actions;
- Allowed for Gulf king mackerel stock identification and allocation when appropriate;
- Provided for commercial Atlantic Spanish mackerel possession limits;
- Changed commercial permit requirements to allow qualification in one of three preceding years;
- Discontinued the reversion of the bag limit to zero when the recreational quota is filled;
- Modified the recreational fishing year to the calendar year; and

- Changed the minimum size limit for king mackerel to 20 inches FL, and changed all size limit measures to fork length only.

Amendment 7, with EA, implemented in November 1994, equally divided the Gulf commercial allocation in the Eastern Zone at the Dade-Monroe County line in Florida. The suballocation for the area from Monroe County through Western Florida is equally divided between commercial hook-and-line and net gear users.

Amendment 8, with EA, implemented March 1998, made the following changes to the management regime:

- Clarified ambiguity about allowable gear specifications for the Gulf group king mackerel fishery by allowing only hook-and-line and run-around gill nets. However, catch by permitted, multi-species vessels and bycatch allowances for purse seines were maintained;
- Established allowable gear in the SAFMC and MAFMC areas as well as providing for the RA to authorize the use of experimental gear;
- Established the Councils' intent to evaluate the impacts of permanent jurisdictional boundaries between the GMFMC and SAFMC and development of separate FMPs for coastal pelagics in these areas;
- Established a moratorium on commercial king mackerel permits until no later than October 15, 2000, with a qualification date for initial participation of October 16, 1995;
- Increased the income requirement for a king or Spanish mackerel permit to 25% of earned income or \$10,000 from commercial sale of catch or charter or head boat fishing in 1 of the 3 previous calendar years, but allowed for a 1-year grace period to qualify under permits that are transferred;
- Legalized retention of up to 5 cut-off (damaged) king mackerel on vessels with commercial trip limits;
- Set an optimum yield (OY) target at 30% static spawning potential ratio (SPR) for the Gulf and 40% static SPR for the Atlantic;
- Provided the SAFMC with authority to set vessel trip limits, closed seasons or areas, and gear restrictions for Gulf group king mackerel in the North Area of the Eastern Zone (Dade/Monroe to Volusia/Flagler County lines);
- Established various data consideration and reporting requirements under the framework procedure;
- Modified the seasonal framework adjustment measures and specifications (see Appendix I);
- Expanded the management area for cobia through the MAFMC's area of jurisdiction (New York).

Amendment 9, with EA, implemented in April 2000, made the following changes to the management regime:

- Reallocated the percentage of the commercial allocation of TAC for the North Area (Florida east coast) and South/West Area (Florida west coast) of the Eastern Zone to 46.15% North and 53.85% South/West and retained the recreational and commercial allocations of TAC at 68% recreational and 32% commercial;
- Subdivided the commercial hook-and-line king mackerel allocation for the Gulf group,

Eastern Zone, South/West Area (Florida west coast) by establishing 2 subzones with a dividing line between the 2 subzones at the Collier/Lee County line;

- Established regional allocations for the west coast of Florida based on the 2 subzones with 7.5% of the Eastern Zone allocation of TAC being allowed from Subzone 2 and the remaining 92.5% being allocated as follows:
 - 50% - Florida east coast
 - 50% - Florida west coast that is further subdivided:
 - 50% - Net Fishery
 - 50% - Hook-and-Line Fishery
- Established a trip limit of 3,000 pounds per vessel per trip for the Western Zone;
- Established a moratorium on the issuance of commercial king mackerel gill-net endorsements and allow re-issuance of gill-net endorsements to only those vessels that: (1) had a commercial mackerel permit with a gill-net endorsement on or before the moratorium control date of October 16, 1995 (Amendment 8), and (2) had landings of king mackerel using a gill net in one of the two fishing years 1995-96 or 1996-97 as verified by the National Marine Fisheries Service (NMFS) or trip tickets from the FDEP; allowed transfer of gill-net endorsements to immediate family members (son, daughter, father, mother, or spouse) only; and prohibited the use of gill nets or any other net gear for the harvest of Gulf group king mackerel north of an east/west line at the Collier/Lee County line;
- Increased the minimum size limit for Gulf group king mackerel from 20 inches to 24 inches FL
- Allowed the retention and sale of cut-off (damaged), legal-sized king and Spanish mackerel within established trip limits.

Amendment 10, with (Supplemental Environmental Impact Statement (SEIS), approved June 1999, incorporated essential fish habitat (EFH) provisions for the SAFMC.

Amendment 11, with SEIS, partially approved in December 1999, included proposals for mackerel in the SAFMC's Comprehensive Amendment Addressing Sustainable Fishery Act Definitions and other Provisions in Fishery Management Plans of the South Atlantic Region.

Amendment 12, with EA, implemented October 2000, extended the commercial king mackerel permit moratorium from its current expiration date of October 15, 2000, to October 15, 2005, or until replaced with a license limitation, limited access, and/or individual fishing quota or individual transferable quota system, whichever occurs earlier.

Amendment 13, with SEIS, implemented August 19, 2002, established two marine reserves in the EEZ of the Gulf in the vicinity of the Dry Tortugas, Florida known as Tortugas North and Tortugas South in which fishing for coastal migratory pelagic species is prohibited. This action complements previous actions taken under the National Marine Sanctuaries Act.

Amendment 14, with EA, implemented July 29, 2002, established a 3-year moratorium on the issuance of charter vessel and head boat Gulf group king mackerel permits in the Gulf unless sooner replaced by a comprehensive effort limitation system. The control date for eligibility was established as March 29, 2001. Also includes other provisions for eligibility, application, appeals, and transferability.

Amendment 15, with EA, implemented August 8, 2005, established an indefinite limited access program for the commercial king mackerel fishery in the exclusive economic zone under the jurisdiction of the Gulf of Mexico, South Atlantic, and Mid-Atlantic Fishery Management Councils. It also changed the fishing season to March 1 through February 28/29 for the Atlantic groups of king and Spanish mackerel.

Amendment 16, was not developed.

Amendment 17, with SEIS, implemented June 15, 2006, established a limited access system on for-hire reef fish and CMP permits. Permits are renewable and transferable in the same manner as currently prescribed for such permits. There will be a periodic review at least every 10 years on the effectiveness of the limited access system.

4.0 MANAGEMENT ALTERNATIVES

ACTION 1: Modifications to the Fishery Management Unit

Alternative 1. Status quo - retain only Gulf and Atlantic group king and Spanish mackerel and cobia in the management unit for management purposes and clarify that the other species are included in the management unit of the CMP FMP for data collection purposes only.

Alternative 2. Retain only Gulf and Atlantic group king and Spanish mackerel and cobia in the management unit and designate all other species as ecosystem component species.

Alternative 3. Retain only Gulf and Atlantic group king and Spanish mackerel and cobia in the management unit, remove dolphin in the Atlantic, and designate all other species in the CMP FMP management plan as ecosystem component species.

Alternative 4. Remove all species other than king mackerel, Spanish mackerel, and cobia from the CMP FMP.

Discussion: The councils have never managed bluefish, cero, little tunny, or dolphin under the CMP FMP; however, they were originally included for data collection purposes in order to determine whether future management was warranted. After over 20 years, the councils have not seen the need to add these stocks to the management unit, and the SAFMC has elected to manage dolphin and wahoo via a separate FMP. Consequently, the councils do not see the need to set ACLs and AMs for these stocks.

ACTION 2: Modify the Framework Procedure to Incorporate the Southeast Data Assessment and Review (SEDAR) Process and other past actions by the councils as well as changes due to the Sustainable Fisheries Act and Magnuson-Stevens Reauthorization Act

Alternative 1. Modify the framework procedure as shown in Appendix A.

Alternative 2. No Action – Do not modify the framework procedure.

Discussion: In 2002 the Councils adopted the Southeast Data Assessment and Review (SEDAR) as its preferred method of assessing the status of stocks and determining allowable catch levels. Benchmark assessments under SEDAR are completed using a series of workshops: Data Workshop, Assessment webinars and possibly meetings, and Review workshop. In the Data Workshop scientists from the states, the National Marine Fisheries Service (NMFS), and academia along with constituents and environmental nongovernment organization (ENGO) representatives meet to select the appropriate data and assessment techniques that will be used to assess a particular stock or group of stocks. In the Assessment process mostly scientists (and some lay representation) with familiarity with stock assessments develop the stock assessment in conjunction with scientists from the Southeast Fisheries Science Center (SEFSC). Finally, the

Review Workshop is a peer review process where SSC members and outside experts review and critique the assessment and develop a consensus report with their findings.

Update assessments are also conducted under SEDAR. Assessment updates typically use the same data sets and assessment techniques used in an earlier benchmark assessment with succeeding year's data being added. Assessment updates typically include mostly SSC members.

Prior to 2002, the SEFSC developed stock assessments that were in turn reviewed by the Councils' stock assessment panels for the various species or species groups being assessed. The current language in the Framework Procedure describes this outdated process. Consequently, the Councils are considering modified language to incorporate the SEDAR process (Appendix A).

ACTION 3: Establish Separate Atlantic and Gulf Migratory Groups of Cobia

Alternative 1. No action - Maintain one group of cobia.

Alternative 2. Separate the two migratory groups at the Miami-Dade/Monroe County line.

Alternative 3. Separate the two migratory groups at the SAFMC/GMFMC boundary.

Discussion: Currently there is one stock of cobia that includes the Gulf and Atlantic. An assessment has been done for the Gulf component with a split at the Miami-Dade/Monroe County line. The best available science supports such a split.

ACTION 4: Set ACL for Gulf Group Cobia

Alternative 1. No action – do not set ACL for Gulf group cobia

Alternative 2. Set ACL = MSY at 1.5 MP for Gulf group cobia

Option a. Set a single ACL

Option b. Set separate commercial and recreational ACLs based on current average percent of catches for the period 1999 through 2009

Option c. Set separate commercial and recreational ACLs based on current average percent of catches for the period 1986 through 2009

Alternative 3. Set ACL = ABC (yield corresponding 0.75*FMSY when the stock is at equilibrium [currently estimated at 1.45 MP] for Gulf group cobia)

Option a. Set a single ACL

Option b. Set separate commercial and recreational ACLs based on current average percent of catches for the period 1999 through 2009

Option c. Set separate commercial and recreational ACLs based on current average percent of catches for the period 1986 through 2009

Discussion: Gulf group cobia have not been assessed since 2000; however this stock is managed by a 2-fish per person per day bag limit for the commercial and recreational fisheries.

Consequently, approximately 90% of the landings are recreational. Additionally, there was only a 30% chance that the stock was overfished and only a 40% chance of overfishing occurring in 2000.

ACTION 5: Set ACT for Gulf Group Cobia

Alternative 1. No action – do not set ACT for Gulf group cobia

Alternative 2. Set ACT = ACL = MSY = 1.5 MP for Gulf group cobia

Option a. Set a single ACT

Option b. Set separate commercial and recreational ACTs based on current average percent of catches for the period 1999 through 2009

Option c. Set separate commercial and recreational ACTs based on current average percent of catches for the period 1986 through 2009

Alternative 3. Set ACT = ABC (yield corresponding 0.75*FMSY when the stock is at equilibrium [currently estimated at 1.45 MP] for Gulf group cobia)

Option a. Set a single ACT

Option b. Set separate commercial and recreational ACTs based on current average percent of catches for the period 1999 through 2009

Option c. Set separate commercial and recreational ACTs based on current average percent of catches for the period 1986 through 2009

Alternative 4. Set ACT at 0.90*ABC (yield corresponding 0.75*FMSY when the stock is at equilibrium [currently estimated at 1.45 MP] for Gulf group cobia) which is 1.23 MP

Option a. Set a single ACT

Option b. Set separate commercial and recreational ACTs based on current average percent of catches for the period 1999 through 2009

Option c. Set separate commercial and recreational ACTs based on current average percent of catches for the period 1986 through 2009

ACTION 6: Set AMs for Gulf Group Cobia

Alternative 1. No Action – Retain current in-season accountability measures (AMs) for Gulf group cobia.

Option a. Commercial bag limit of 2 per person per day

Option b. Recreational bag limit of 2 per person per day

Alternative 2. Change in-season AMs

Option a. Commercial

Suboption i. Closure when commercial/stock ACL/ACT reached

Suboption ii. Trip limit implemented when x% of stock/commercial ACL/ACT reached

Option b. Recreational

Suboption i. Closure when stock/recreational ACL/ACT reached

Suboption ii. Bag limit reduced when x% of stock/recreational ACL/ACT reached

Alternative 3. Set post-season AMs

- Option a. Commercial
 - Suboption i. Payback of overage from quota in the following year
 - Suboption ii. Implement trip limit in the following year
- Option b. Recreational
 - Suboption i. Payback of overage from quota in the following year
 - Suboption ii. Reduce bag limit in the following year
 - Suboption iii. Shorten season in the following year

Note: The Council may choose more than one preferred alternative.

Discussion: Current regulations for cobia include bag limits that apply to both the commercial and recreational sectors.

In-season commercial closures could be applied if a commercial quota is set based on the ACL or ACT. If **Alternative 2a** is chosen, a trip limit would need to be determined because one currently does not exist. In-season recreational AMs are more difficult to implement because they require in-season tracking of the recreational catch.

Post-season AMs do not currently exist for either sector. Paybacks of overages reduce the next year's quota by the amount of the current year's overage. For the commercial sector (**Alternative 3a**), this quota reduction could result in early closures. For the recreational sector (**Alternative 3b**), paybacks would necessitate either a reduction in the bag limit (**Alternative 3bii**) or season (**Alternative 3biii**) to constrain harvest within a lower quota. However, even without payback of an overage, reductions of the bag limit or season could be applied to constrain harvest within the current quota.

ACTION 7: Set ACL for Cobia in the Atlantic

Alternative 1. No action – do not set ACL for Cobia in the Atlantic

Alternative 2. Set ACL at the Average Landings for 2000 through 2009

- Option a. Set a single ACL
- Option b. Set separate commercial and recreational ACLs based on current allocations
- Option c. Set separate commercial and recreational ACLs based on average catch levels by sector for this period

Alternative 3. Set ACL at the Average Landings for 1986 through 2009

- Option a. Set a single ACL
- Option b. Set separate commercial and recreational ACLs based on current allocations
- Option c. Set separate commercial and recreational ACLs based on average catch levels by sector for this period

Discussion: Atlantic group cobia, based on separation at the Miami-Dade/Monroe County line on the Florida east coast, have not been assessed since 1996. A separate age-based analysis was not completed for Atlantic group cobia. The 1996 Mackerel Stock Assessment Panel (MSAP)

presented the following conclusion about Atlantic cobia: “While there is likely bycatch, the directed catches remain low relative to Gulf catches and as indicated in the 1993 assessment, Atlantic catches probably result in very small F with high SPR”. The SAFMC is considering implementing precautionary measures to prevent targeting of cobia during the spawning season.

ACTION 8: Set ACT for Cobia in the Atlantic

Alternative 1. No action – do not set ACT for Cobia in the Atlantic

Alternative 2. Set ACT=ACL at the Average Landings for 2000 through 2009

Option a. Set a single ACL

Option b. Set separate commercial and recreational ACLs based on current allocations

Option c. Set separate commercial and recreational ACLs based on average catch levels by sector for this period

Alternative 3. Set ACT=ACL at the Average Landings for 1986 through 2009

Option a. Set a single ACL

Option b. Set separate commercial and recreational ACLs based on current allocations

Option c. Set separate commercial and recreational ACLs based on average catch levels by sector for this period

Alternative 4. Set ACT=0.90*ACL

Option a. Set a single ACL

Option b. Set separate commercial and recreational ACLs based on current allocations

Option c. Set separate commercial and recreational ACLs based on average catch levels by sector for either period

ACTION 9: Set AMs for Cobia in the Atlantic

Alternative 1. Status Quo – Retain current in-season accountability measures (AMs) for Atlantic group cobia.

Option a. Commercial bag limit of 2 per person per day

Option b. Recreational bag limit of 2 per person per day

Alternative 2. Change in-season AMs

Option a. Commercial

Suboption i. Closure when commercial/stock ACL/ACT reached

Suboption ii. Trip limit implemented when x% of stock/commercial ACL/ACT reached

Option b. Recreational

Suboption i. Closure when stock/recreational ACL/ACT reached

Suboption ii. Bag limit reduced when x% of stock/recreational ACL/ACT reached

Alternative 3. Set post-season AMs

Option a. Commercial

Suboption i. Payback of overage from quota in the following year

Suboption ii. Implement trip limit in the following year

Option b. Recreational

Suboption i. Payback of overage from quota in the following year

Suboption ii. Reduce bag limit in the following year

Suboption iii. Shorten season in the following year

Note: The Council may choose more than one preferred alternative.

Discussion: The Gulf Council's SSC has recommended setting the interim OFL for Gulf group king mackerel based on the yield at F30%SPR and setting the interim ABC based on 85% of the F30%SPR yield based on the assumption of a 50/50 mix of Atlantic and Gulf group king mackerel in the existing mixing zone (see Table 1, Figure 1). These data were provided as part of the SEDAR 16 assessment process using data through 2006. As shown in Table 1, the current annual total allowable catch (TAC) for Gulf group king mackerel (10.2 million pounds) is well below the ABC recommendation of the SSC (13.2 million pounds). Additionally, the current spawning stock biomass (SSB) is approximately 1.5 times the minimum stock size threshold (MSST), and the current fishing mortality rate is only approximately 80% of the maximum fishing mortality threshold (MFMT) (Table 2). Consequently, the Gulf migratory group of king mackerel is not overfished nor undergoing overfishing.

The alternatives for ACL are based on setting ACL equal to or at 85% of the SSC's ABC recommendation. Similarly, ACT alternatives are based on setting ACT equal to ACL or at 85% of the lowest alternative for ACL.

The selected ACL or ACT could be divided as follows (based on status quo and current allocations):

- Recreational allocation (Gulf) - 68% - 7.21 MP
- Commercial allocation (Gulf) - 32% - 3.39 MP
 - Western Zone (31%) - 1.05 MP
 - Eastern Zone (69%) - 2.34 MP
 - Northern Florida West Coast Subzone (7.5% of 2.34 MP Eastern Zone allocation) - 175,500
 - Florida East Coast Subzone (50% of remaining Eastern Zone allocation) - 1.08 MP
 - Southern Florida West Coast Subzone (50% of remaining Eastern Zone allocation) - 1.08 MP
 - Run-around Gillnet Quota (50% of Southern Florida Subzone) – 541,000
 - South Florida West Coast Subzone Hook-and-line (50% of Southern Florida Subzone) – 541,000

ACTION 10: Set ACL for Gulf Migratory Group King Mackerel

Alternative 1. Status Quo – Set ACL for Gulf group king mackerel at 10.2 MP

Alternative 2. Set ACL = ABC (13.215 MP) for Gulf group king mackerel

- Option a. Set a single ACL
- Option b. Set separate commercial and recreational ACLs based on current allocations
- Option c. For the commercial sector, set separate ACLs for hook-and-line and run-around gillnets

Alternative 3. Set ACL = 0.90* ABC (11.894 MP) for Gulf group king mackerel

- Option a. Set a single ACL
- Option b. Set separate commercial and recreational ACLs based on current allocations
- Option c. For the commercial sector, set separate ACLs for hook-and-line and run-around gillnets

ACTION 11: Set ACT for Gulf Migratory Group King Mackerel

Alternative 1. No action – do not set ACT for Gulf group king mackerel

Alternative 2. Status Quo – Set ACT = current TAC (10.2 MP)

Alternative 3. Set ACT = ACL = ABC (13.215 MP) for Gulf group king mackerel

- Option a. Set a single ACT
- Option b. Set separate commercial and recreational ACTs based on current allocations
- Option c. For the commercial sector, set separate ACTs for hook-and-line and run-around gillnets

Alternative 4. Set ACT = 0.90* ABC (11.233 MP) for Gulf group king mackerel

- Option a. Set a single ACT
- Option b. Set separate commercial and recreational ACTs based on current allocations
- Option c. For the commercial sector, set separate ACTs for hook-and-line and run-around gillnets

ACTION 12: Set AMs for Gulf Migratory Group King Mackerel

Alternative 1. Status Quo – Retain current in-season accountability measures (AMs) for Gulf group king mackerel.

- Option a. Commercial
 - Suboption i. Quota closures by zone, subzone, and gear (see Table 1)
 - Suboption ii. Trip limits and trip limit triggers (see Table 2)
- Option b. Recreational bag limit of 2 per person, including captain and crew of for-hire vessels with authority of Regional Administrator to revert bag limit to zero

Alternative 2. Change in-season AMs

- Option a. Commercial
 - Suboption i. Closure when stock/commercial ACL/ACT reached
 - Suboption ii. Trip limit(s) reduced when x% of stock/commercial ACL/ACT reached
- Option b. Recreational

- Suboption i. Closure when stock/recreational ACL/ACT reached
- Suboption ii. Bag limit reduced to one when x% of stock/recreational ACL/ACT reached

Alternative 3. Set post-season AMs for Gulf group king mackerel

- Option a. Commercial
 - Suboption i. Payback of overage from quota in the following year
 - Suboption ii. Reduce trip limit in the following year
- Option b. Recreational
 - Suboption i. Payback of overage from quota in the following year
 - Suboption ii. Reduce bag limit in the following year
 - Suboption iii. Shorten season in the following year

Note: The Council may choose more than one preferred alternative.

Discussion: AMs are management controls that ensure ACLs are not exceeded or provide corrective measures if overages occur. According to NS1 guidance, AMs can be in-season actions that prevent overages during the current fishing season, or post-season actions that “correct the operational issue that caused the ACL overage, as well as any biological consequences to the stock or stock complex resulting from the overage.”

Current regulations include in-season closures for the commercial sector when the quota for each zone, subzone, or gear is projected to be reached. Table 1 shows the quota for each area and the date when a closure occurred since the 2001-2002 fishing season. Each zone, subzone, and gear also has separate trip limits and some areas have triggers to adjust the trip limits (Table 2). The recreational bag limit is the same in all areas.

In-season commercial AMs could be applied to each zone, subzone, or gear as they currently are, or they could be applied according to how the ACLs and ACTs are set in Action 1. Choosing Alternative 2ai would effectively eliminate the individual quotas for each area. If Alternative 2a_{ii} were chosen, separate trip limits could still exist for each area, but triggers for trip limit reductions would all be the same and occur at the same point. In-season recreational AMs are more difficult to implement because they require in-season tracking of the recreational catch. However, it has been done; in 1988, 1989, 1990, and 1992, the recreational bag limit was reduced to zero during the fishing year.

ACTION 13: Set ACL for Gulf Migratory Group Spanish Mackerel

Alternative 1. Status Quo – Set ACL for Gulf group Spanish mackerel equal to current TAC of 9.1 MP

Alternative 2. Set ACL = yield when fishing at F30% SPR = MSY = 8.7 MP for Gulf group Spanish mackerel

- Option a. Set a single ACL
- Option b. Set separate commercial and recreational ACLs based on current allocations (57% commercial, 43% recreational)
- Option c. Set separate commercial and recreational ACLs based on recent landings

Alternative 3. Set $ACL = ABC = \text{yield corresponding to a fishing mortality rate (FOY)}$ defined as: $FOY=0.75 \cdot FMSY$ when the stock is at equilibrium (currently estimated at 8.3 MP) for Gulf group Spanish mackerel

Option a. Set a single ACL

Option b. Set separate commercial and recreational ACLs based on current allocations (57% commercial, 43% recreational)

Option c. Set separate commercial and recreational ACLs based on recent landings

Discussion: Gulf group Spanish mackerel have not been assessed since 2003. At that time catch from the 2001/2002 fishing year was approximately 3.8 million pounds and TAC was set at 9.1 million pounds. Additionally, there was only a 3% chance that $SSB_{2003} < MSST$ and only a 9% chance that $F_{2003} > MFMT$. Consequently, the stock was neither overfishing nor overfished.

ACTION 14: Set ACT for Gulf Migratory Group Spanish Mackerel

Alternative 1. No action – do not set ACT for Gulf group Spanish mackerel

Alternative 2. Status quo – set ACT equal to current TAC for Gulf group Spanish mackerel at 9.1 MP

Option a. Set a single ACT

Option b. Set separate commercial and recreational ACTs based on current allocations (57% commercial, 43% recreational)

Option c. Set separate commercial and recreational ACLs based on recent landings

Alternative 3. Set $ACT = \text{yield when fishing at } F_{30\%} \cdot SPR = MSY = 8.7 \text{ MP}$ for Gulf group Spanish mackerel

Option a. Set a single ACT

Option b. Set separate commercial and recreational ACTs based on current allocations (57% commercial, 43% recreational)

Option c. Set separate commercial and recreational ACLs based on recent landings

Alternative 4. Set $ACT = ABC = ACL = \text{yield corresponding to a fishing mortality rate (FOY)}$ defined as: $FOY=0.75 \cdot FMSY$ when the stock is at equilibrium (currently estimated at 8.3 MP) for Gulf group Spanish mackerel

Option a. Set a single ACT

Option b. Set separate commercial and recreational ACTs based on current allocations (57% commercial, 43% recreational)

Option c. Set separate commercial and recreational ACLs based on recent landings

Alternative 5. Set $ACT = 0.90 \cdot \text{yield corresponding to a fishing mortality rate (FOY)}$ defined as: $FOY=0.75 \cdot FMSY$ when the stock is at equilibrium (currently estimated at 8.3 MP) for Gulf group Spanish mackerel. $ACT=7.47 \text{ MP}$

Option a. Set a single ACT

Option b. Set separate commercial and recreational ACTs based on current allocations (57% commercial, 43% recreational)

Option c. Set separate commercial and recreational ACLs based on recent landings

Discussion:

ACTION 15: Set AMs for Gulf Migratory Group Spanish Mackerel

Alternative 1. Status Quo – Retain current in-season accountability measures (AMs) for Gulf group Spanish mackerel.

Option a. Commercial quota closure

Option b. Recreational bag limit of 15 per person per day

Alternative 2. Change in-season AMs

Option a. Commercial

Suboption i. Closure when stock ACL/ACT reached

Suboption ii. Trip limit implemented when x% of stock/commercial ACL/ACT reached

Option b. Recreational

Suboption i. Closure when stock/recreational ACL/ACT reached

Suboption ii. Bag limit reduced when x% of stock/recreational ACL/ACT reached

Alternative 3. Set post-season AMs

Option a. Commercial

Suboption i. Payback of overage from quota in the following year

Suboption ii. Implement trip limit in the following year

Option b. Recreational

Suboption i. Payback of overage from quota in the following year

Suboption ii. Reduce bag limit in the following year

Suboption iii. Shorten season in the following year

Note: The Council may choose more than one preferred alternative.

Discussion: Current regulations for Spanish mackerel include in-season closures for the commercial sector when the 5.187 million-pound quota is projected to be reached. However, the fishery has not been closed since the 1988-1989 fishing season, and commercial landings have decreased since 1991/1992 even as the quota increased.

In-season commercial closures could be applied when the commercial quota is reached as they currently are, or they could be applied when the stock ACL or ACT is reached. Choosing Alternative 2ai would effectively eliminate the commercial quota. If Alternative 2aii is chosen, a trip limit would need to be determined because one does not currently exist. In-season recreational AMs are more difficult to implement because they require in-season tracking of the recreational catch.

Post-season AMs do not currently exist for either sector. Paybacks of overages reduce the next year's quota by the amount of the current year's overage. For the commercial sector (Alternative 3ai), this quota reduction could result in earlier closures. For the recreational sector (Alternative 3bi), paybacks would necessitate either a reduction in the bag limit (Alternative 3bii) or season (Alternative 3biii) to constrain harvest within a lower quota. However, even without payback of

an average, reductions of the bag limit or season could be applied to constrain harvest within the current quota.

ACTION 16: Set ACL for Atlantic Migratory Group King Mackerel

The ACL is equivalent to TAC as used in the past. Based on projections provided by the NMFS Southeast Fisheries Science Center after the SEDAR assessment (Table 3), the Council is considering the following options:

Alternative 1. Status Quo. Currently TAC or ACL =10.0 million pounds based on an ABC of 8.9 - 13.3 million pounds.

Alternative 2. ACL = 7.939 million pounds which is the best point estimate of the likely ABC range (7.426 – 8.356 million pounds). This likely ABC range is presented for initial discussions; the SSC will provide their OFL and ABC recommendations at their December 2009 meeting.

Alternative 3. ACL = 7.426 million pounds which is the lowest value within the likely ABC range (7.426 – 8.356 million pounds). This likely ABC range is presented for initial discussions; the SSC will provide their OFL and ABC recommendations at their December 2009 meeting.

Alternative 4. ACL = 8.356 million pounds which is the top end of the likely ABC range (7.426 – 8.356 million pounds). This likely ABC range is presented for initial discussions; the SSC will provide their OFL and ABC recommendations at their December 2009 meeting.

Discussion: For Alternative 1, the recreational allocation (62.9%) is 6.30 million pounds and the commercial allocation (37.1%) is 3.71 million pounds.

For Alternative 2 the recreational allocation (62.9%) would be 4.994 million pounds and the commercial allocation (37.1%) would be 2.945 million pounds.

For Alternative 3, the recreational allocation (62.9%) would be 4.671 million pounds and the commercial allocation (37.1%) would be 2.755 million pounds.

For Alternative 4, the recreational allocation (62.9%) would be 5.256 million pounds and the commercial allocation (37.1%) would be 3.100 million pounds.

ACTION 17: Set ACT for Atlantic Migratory Group King Mackerel

The ACT may be equal to ACL=TAC as used in the past. Based on projections provided by the NMFS Southeast Fisheries Science Center after the SEDAR assessment (Table 3), the Council is considering the following options:

Alternative 1. Status Quo. Currently TAC or ACT = ACL = 10.0 million pounds based on an ABC of 8.9 - 13.3 million pounds.

Alternative 2. ACT = ACL = 7.939 million pounds which is the best point estimate of the likely ABC range (7.426 – 8.356 million pounds). This likely ABC range is presented for initial discussions; the SSC will provide their OFL and ABC recommendations at their December 2009 meeting.

Alternative 3. ACT = 7.426 million pounds which is the lowest value within the likely ABC range (7.426 – 8.356 million pounds). This likely ABC range is presented for initial discussions; the SSC will provide their OFL and ABC recommendations at their December 2009 meeting.

Alternative 4. ACT = 8.356 million pounds which is the top end of the likely ABC range (7.426 – 8.356 million pounds). This likely ABC range is presented for initial discussions; the SSC will provide their OFL and ABC recommendations at their December 2009 meeting.

ACTION 18: Set AMs for Atlantic Migratory Group King Mackerel

Alternative 1. Status Quo – Set AMs for Atlantic group king mackerel

Alternative 2. Set in-season AMs – quota closures for Atlantic group king mackerel

Option a. Commercial

Option b. Recreational

Alternative 3. Set post-season AMs for Atlantic group king mackerel

Option a. Commercial

Suboption i. Reduce quota in the following year

Suboption ii. Shorten season

Option b. Recreational

Suboption i. Decrease bag limit

Suboption ii. Shorten season

ACTION 19: Set ACL for Atlantic Migratory Group Spanish Mackerel

The ACL is equivalent to TAC as used in the past. Based on projections provided by the NMFS Southeast Fisheries Science Center after the SEDAR assessment (Table 4), the Council is considering the following options:

Alternative 1. Status Quo. Currently ACL = TAC = 7.04 million pounds based on an ABC of 5.7 – 9.0 million pounds.

Alternative 2. ACL (TAC) = 11.051 million pounds which is the best point estimate of the likely ABC range (10.608 – 11.320 million pounds). This likely ABC range is presented for initial discussions; the SSC will provide their OFL and ABC recommendations at their June or December 2009 meeting.

Alternative 3. ACL (TAC) = 10.608 million pounds which is the lowest value within the likely ABC range (10.608 – 11.320 million pounds). This likely ABC range is presented for initial discussions; the SSC will provide their OFL and ABC recommendations at their June or December 2009 meeting.

Alternative 4. ACL (TAC) = 11.320 million pounds which is the top end of the likely ABC range (10.608 – 11.320 million pounds). This likely ABC range is presented for initial discussions; the SSC will provide their OFL and ABC recommendations at their June or December 2009 meeting.

Alternative 5. ACL (TAC) = 8 million pounds.

Alternative 6. ACL (TAC) = 9 million pounds

ACTION 20: Set ACT for Atlantic Migratory Group Spanish Mackerel

The ACT may be equal to $ACL=TAC$ as used in the past. Based on projections provided by the NMFS Southeast Fisheries Science Center after the SEDAR assessment (Table 4), the Council is considering the following options:

Alternative 1. Status Quo. Currently $ACT = ACL = TAC = 7.04$ million pounds based on an ABC of 5.7 – 9.0 million pounds.

Alternative 2. $ACT = ACL (TAC) = 11.051$ million pounds which is the best point estimate of the likely ABC range (10.608 – 11.320 million pounds). This likely ABC range is presented for initial discussions; the SSC will provide their OFL and ABC recommendations at their June or December 2009 meeting.

Alternative 3. $ACT = 10.608$ million pounds which is the lowest value within the likely ABC range (10.608 – 11.320 million pounds). This likely ABC range is presented for initial discussions; the SSC will provide their OFL and ABC recommendations at their June or December 2009 meeting.

Alternative 4. $ACT = ACL (TAC) = 11.320$ million pounds which is the top end of the likely ABC range (10.608 – 11.320 million pounds). This likely ABC range is presented for initial discussions; the SSC will provide their OFL and ABC recommendations at their June or December 2009 meeting.

Alternative 5. $ACT = 8$ million pounds.

Alternative 6. ACT = 9 million pounds

Discussion: For Alternative 1 the recreational allocation (45%) would be 3.168 million pounds and the commercial allocation (55%) is 3.872 million pounds.

For Alternative 2 the recreational allocation (45%) would be 4.973 million pounds and the commercial allocation (55%) would be 6.078 million pounds.

For Alternative 3 the recreational allocation (45%) would be 4.774 million pounds and the commercial allocation (55%) would be 5.834 million pounds.

For Alternative 4 the recreational allocation (45%) would be 5.094 million pounds and the commercial allocation (55%) would be 6.226 million pounds.

For Alternative 5 the recreational allocation (45%) would be 3.6 million pounds and the commercial allocation (55%) would be 4.4 million pounds.

For Alternative 6 the recreational allocation (45%) would be 4.05 million pounds and the commercial allocation (55%) would be 4.95 million pounds.

ACTION 21: Set AMs for Atlantic Migratory Group Spanish Mackerel

Alternative 1. Status Quo – Set AMs for Atlantic group Spanish mackerel

Alternative 2. Set in-season AMs – quota closures for Atlantic group Spanish mackerel

Option a. Commercial

Option b. Recreational

Alternative 3. Set post-season AMs for Atlantic group Spanish mackerel

Option a. Commercial

Suboption i. Reduce quota in the following year

Suboption ii. Shorten season

Option b. Recreational

Suboption i. Decrease bag limit

Suboption ii. Shorten season

Discussion:

5.0 AFFECTED PHYSICAL, BIOLOGICAL, AND ECONOMIC ENVIRONMENTS

6.0 AFFECTED SOCIAL AND ADMINISTRATIVE ENVIRONMENTS

7.0 ENVIRONMENTAL CONSEQUENCES

8.0 REFERENCES

9.0 LIST OF PREPARERS

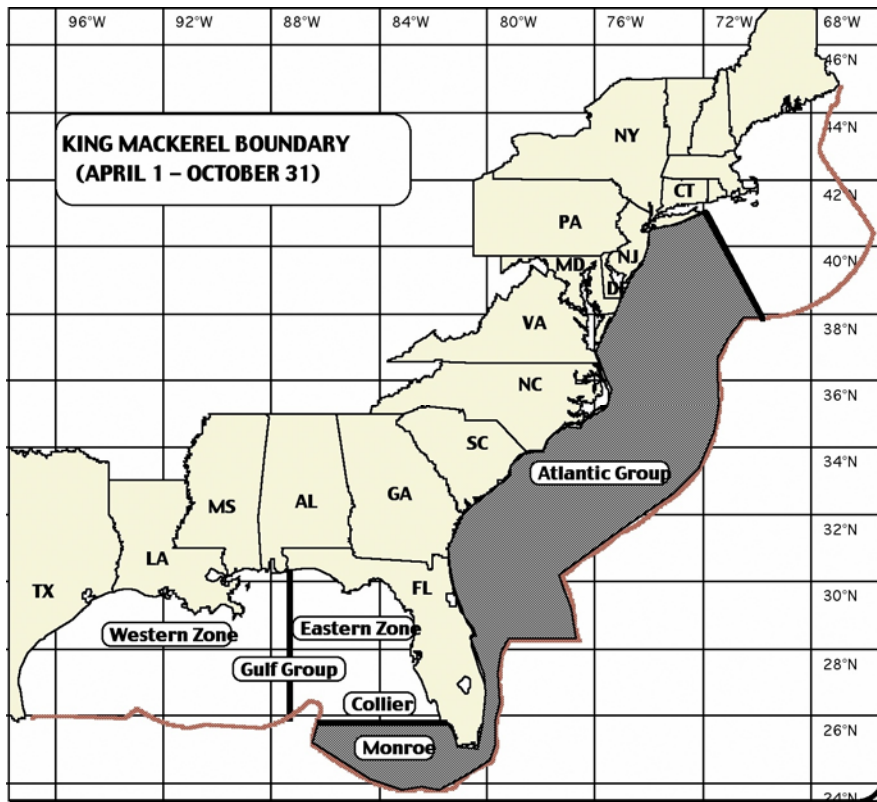


Figure 1

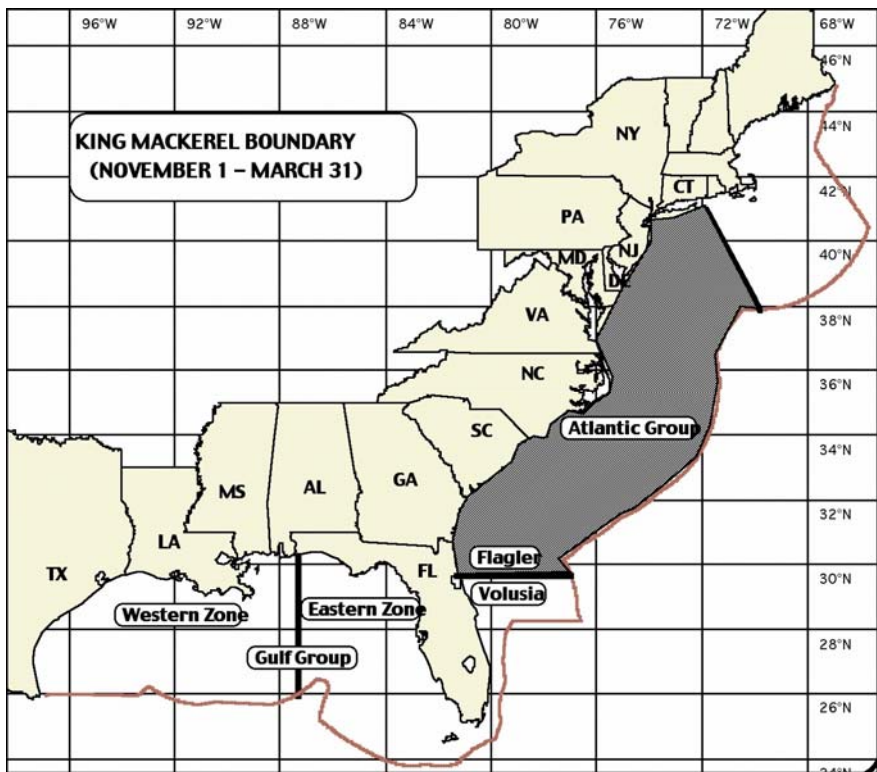


Figure 2

APPENDIX A – MODIFICATIONS TO FRAMEWORK

Section 12.6.1 Mechanism for Determination of Framework Adjustments, as modified by this and previous amendments is as follows:

Section 12.6.1.1:

- A. ~~An assessment panel (Panel) appointed by the Councils will normally reassess the condition of each stock or migratory group of king and Spanish mackerel and cobia in alternate (even numbered) years and other stocks when data allows for the purpose of providing for any needed pre-season adjustment of TAC and other framework measures. However, in the event of changes in the stocks or fisheries, The Councils may request additional assessments as may be needed. The Councils, however, may make annual seasonal adjustments based on the most recent assessment. The Panel shall be composed of NMFS scientists, Council staff, Scientific and Statistical Committee members, and other state, university, and private scientists as deemed appropriate by the Councils.~~

Each stock assessment ~~The Panel should~~ will address the following **and perhaps other** items for each stock:

1. Stock identity and distribution. This should include situations where there are groups of fish within a stock which are sufficiently different that they should be managed as separate units. If several possible stock divisions exist, ~~the Panel~~ **they** should describe the likely alternatives.
2. MSY and/or B_{MSY} (or appropriate proxies) for each identified stock. If more than one possible stock division exists, MSY and/or B_{MSY} for each possible combination should be estimated.
3. Condition of the stock(s) or groups of fish within each stock which could be managed separately. For each stock, this should include but not be limited to:
 - a. Fishing mortality rates relative to F_{MSY} and $F_{0.1}$ as well as $F_{30\text{ percentSPR}}$, and $F_{40\text{ percentSPR}}$, **OFL, or other limits as deemed appropriate.**
 - b. Spawning potential ratios (SPR).
 - c. Abundance relative to **biomass at MSY and MSST** ~~an adequate spawning biomass.~~
 - d. Trends in recruitment.
 - e. Acceptable Biological Catch (ABC) **estimates** which will result in long-term yield as near MSY as possible **based on the level of scientific uncertainty.**
 - f. Calculation of catch ratios based on catch statistics using procedures defined in the FMP as modified.
 - g. Estimate of current mix of Atlantic and Gulf migratory group king mackerel in the mixing zone for use in tracking quotas.

4. Overfished and Overfishing:

- a. **Gulf group king mackerel stocks in the Gulf of Mexico will be considered overfished if the probability that B_{current} is less than MSST is greater than 50%. The minimum stock size threshold (MSST) is defined as $(1-M)*B_{\text{MSY}}$ or 80% of B_{MSY} . Gulf group Spanish mackerel stocks and cobia stocks in the Gulf of Mexico will be considered overfished if the probability that B_{current} is less than MSST is greater than 50%. The minimum stock size threshold (MSST) is defined as $(1-M)*B_{\text{MSY}}$ or 70% of B_{MSY} . ~~A mackerel stock or migratory group is considered to be overfished when the biomass is reduced below the MSST.~~**
- b. The South Atlantic Council's target level or OY is 40 percent static SPR. The Gulf Council's target level or optimum yield (OY) is **the yield corresponding to a fishing mortality rate (F_{OY}) defined as: $F_{\text{OY}}=0.85*F_{\text{MSY}}$ when the stock is at equilibrium for Gulf group king mackerel and the yield corresponding to a fishing mortality rate (F_{OY}) defined as: $F_{\text{OY}}=0.75*F_{\text{MSY}}$ when the stock is at equilibrium for Gulf group Spanish mackerel and cobia** ~~30 percent static SPR. ABC is calculated based on both MSY (defined for Gulf group king and Spanish mackerel as the yield associated with $F_{30\% \text{ SPR}}$ when the stock is at equilibrium and the yield associated with F_{MSY} when the stock is at equilibrium for cobia) and OY as well as the consideration of scientific uncertainty, the target level or optimum yield (SAFMC = 40 percent static SPR and GMFMC = 30 percent static SPR).~~
- c. When a stock or migratory group is overfished (biomass is below MSST), a rebuilding program that makes consistent progress towards restoring stock condition must be implemented and continued until the stock is restored to **B_{MSY}** ~~MSY~~. The rebuilding program must be designed to achieve recovery within an acceptable time frame consistent with the National Standard Guidelines, and as specified by the Councils. The Councils will continue to rebuild the stock above MSY until the stock is restored to the management target (OY) if different from MSY.
- d. ~~When a stock or migratory group is not overfished,~~ **The act of overfishing is defined as $MFMT = F_{\text{MSY}}$ and OFL is the yield associated with this level of fishing mortality. The Gulf group king mackerel, Gulf group Spanish mackerel and Gulf group cobia stocks would be considered undergoing overfishing if the probability that F_{current} is larger than F_{MSY} is greater than 50%.** ~~a static SPR that exceeds the threshold of 30 percent (i.e., $F_{30\% \text{ SPR}}$ or MFMT). If fishing mortality rates that exceed the level associated with these thresholds the static SPR threshold are maintained, the stocks may become overfished. Therefore, if overfishing is occurring, a program to reduce fishing mortality rates toward management target levels (OY) will be implemented, even if the stock or migratory group is not in an overfished condition.~~
- e. **The stock assessment process should** ~~The Councils have requested the Mackerel Stock Assessment Panel (MSAP) provide a range of possibilities and options for specifying B_{MSY} and the MSST.~~

- f. For species when there is insufficient information to determine whether the stock or migratory group is overfished, overfishing is defined as a fishing mortality rate in excess of the fishing mortality rate corresponding to a default threshold static SPR of 30 percent, which is the MFMT. If overfishing is occurring, a program to reduce fishing mortality rates to at least the level corresponding to management target levels will be implemented.
5. Management options. If recreational or commercial fishermen have achieved or are expected to achieve their allocations, the **stock assessment Panel** may **include delineate** possible options for non-quota restrictions on harvest, including effective levels for such actions as:
 - a. Bag limits.
 - b. Size limits.
 - c. Gear restrictions.
 - d. Vessel trip limits.
 - e. Closed season or areas, and
 - f. Other options as requested by the Councils.
 6. **The stock assessment process may also evaluate and provide recommendations for** ~~The Panels may also recommend~~ more appropriate levels or statements for the MSY (or proxy), OY, MFMT, and MSST, **OFL and ABC** for any stock, including ~~their~~ rationale for the proposed changes.
 7. Other biological questions, as appropriate, **may also be addressed through the stock assessment process.**
- B. **The stock assessment process** ~~The Panel will develop~~ ~~prepare~~ a written report with its recommendations for submission to the councils **and their SSCs** ~~each year (even years—full assessment, odd years—mini-assessments)~~ by such date as may be specified by the councils **in coordination with NMFS**. The report will contain the scientific basis for ~~their~~ recommendations and indicate the degree of reliability **and uncertainty** which the Council should place on the recommended stock divisions, levels of catch, ~~and~~ options for non-quota controls of the catch, **and any other recommendations.**
- C. The Councils may take action based on the ~~panel~~ report or may take action based on issues/information that surface separate from the **report assessment group**. The steps are as follows:
1. **The stock assessment process** ~~Assessment panel~~-report: The councils **and their SSCs** will consider the report and recommendations ~~of the Panel~~ and such public comments as are relevant to the ~~Panel's~~ report. Public hearings will be held at the time and place where the councils consider the ~~Panel's~~ report. The councils will consult their Advisory Panels and Scientific and Statistical Committees to review the report and provide advice prior to taking final action. After receiving public input, the councils will make findings on the need for changes.
 2. Information separate from **the stock assessment process** ~~assessment panel~~ report: The Councils will consider information that surfaces separate from **the stock**

assessment process ~~the assessment group~~. The Councils' staff will compile the information and analyze the impacts of likely alternatives to address the particular situation. The councils' staff report will be presented to the councils. A public hearing will be held at the time and place where councils consider the Councils' staff report. The councils **will** consult their Advisory Panels and Scientific and Statistical Committees to review the report and provide advice prior to taking final action. After receiving public input, the councils will make findings on the need for changes.

D. If changes are needed in the following, the councils will advise the Regional Administrator (RA) of the Southeast Region of the National Marine Fisheries Service in writing of their recommendations, accompanied by the **stock assessment process report, staff reports, assessment panel's report**, relevant background material, and public comments, **as appropriate**:

- a. MSY or B_{MSY} (or proxies),
- b. overfishing levels (MFMT) and overfished levels (MSST),
- c. TACs and OY statements,
- d. **OFL, ABC, ACL, and possibly ACT**
- ed. quotas (including zero quotas),
- fe. trip limits,
- gf. bag limits (including zero bag limits),
- hg. minimum sizes,
- ih. reallocation of Atlantic group Spanish mackerel,
- ji. gear restriction (ranging from modifying current regulations to a complete prohibition),
- kj. permit requirements, or
- lk. season/area closure and reopening (including spawning closure).
- m. **zones, subzones, and migratory group boundaries**
- n. **allocations**

Recommendations with respect to the Atlantic migratory groups of king and Spanish mackerel **and cobia** will be the responsibility of the South Atlantic Council, and those for the Gulf migratory groups of king and Spanish mackerel **and cobia** will be the responsibility of the Gulf Council. Except that the SAFMC will have responsibility to set vessel trip limits, closed seasons or areas, or gear restrictions for the northern area of the Eastern Zone (Dade through Volusia Counties, Florida) for the commercial fishery for Gulf group king mackerel. ~~This report shall be submitted by such data as may be specified by the Councils.~~

For stocks, ~~such as cobia~~, where scientific information indicates it is a common stock that migrates through the Gulf and South Atlantic jurisdictions, both councils must concur on the recommendations. For other stocks, ~~such as bluefish, cero, and little tunny, there is no scientific information that shows they are common stocks, and~~ each council will separately make management recommendations for these stocks in their jurisdictions.

E. The RA will review the councils' recommendations, supporting rationale, public comments and other relevant information, and if the RA concurs with the recommendations, the RA will draft regulations in accordance with the recommendations. The RA may also reject **any** ~~the~~ recommendation, providing written reasons for rejection. In the event the RA rejects **a** ~~the~~ recommendation, existing regulations shall remain in effect until resolved. However, if the RA finds that a proposed recreational bag limit for Gulf migratory group or groups of king

mackerels is likely to exceed the allocation and rejects the Council's² recommendation, the bag limit reverts to one fish per person per day.

- F. If the RA concurs that the councils' recommendations are consistent with the goals and objectives of the plan, the National Standards, and other applicable law, the RA shall implement the regulations by proposed and final rules in the Federal Register prior to the appropriate fishing year or such dates as may be agreed upon with the councils. A reasonable period for public comment shall be afforded, consistent with the urgency, if any, of the need to implement the management measure.

Appropriate regulatory changes that may be implemented by the RA by proposed and final rules in the Federal Register are:

1. Adjustment of the overfishing level (MFMT) for king and Spanish mackerels and **cobia** ~~other stocks~~. Specification of B_{MSY} and the MSST for the stocks. Respecification of levels or statements of OY and MSY (proxy).
2. Setting **ACLs** ~~total allowable catches (TACs)~~ for each stock or migratory group of fish which should be managed separately, as identified in the FMP provided:
 - a. No **ACL TAC** may exceed the best point estimate of MSY ~~by more than 10 percent for more than one year~~.
 - b. No **ACL TAC** may exceed the upper range of ABC **or the ABC recommended by the respective SSC if it results in overfishing (as previously defined)**.
 - c. Downward adjustments of **ACL TAC** of any amount (**i.e. to ACT**) are allowed in order to protect the stock and prevent overfishing.
 - d. Reductions or increases in allocations as a result of changes in the **ACL TAC** are to be as equitable as may be practical utilizing similar percentage changes to allocations for participants in a fishery.
3. Adjusting user group allocations in response to changes in **ACLs TACs** according to the formula specified in the FMP.
4. The reallocation of Atlantic Spanish mackerel between recreational and commercial fishermen may be made through the framework after consideration of changes in the social and/or economic characteristics of the fishery. Such allocation adjustments shall not be greater than a ten percent change in one year to either sector's allocation. Changes may be implemented over several years to reach a desired goal, but must be assessed each year relative to changes in TAC and social and/or economic impacts to either sector of the fishery.
5. Modifying (or implementing for a particular species):
 - a. quotas (including zero quotas)
 - b. trip limits
 - c. bag limits (including zero bag limits)
 - d. minimum sizes

- e. re-allocation of Atlantic group Spanish mackerel by no more than 10 percent per year to either the commercial or recreational sector.
- f. gear restriction (ranging from modifying current regulations to a complete prohibition)
- g. permit requirements, or
- h. season/area closures and re-openings (including spawning closure)
- i. zones, subzones, migratory group boundaries and allocations**

Authority is also granted to the RA to close any fishery, i.e., revert any bag limit to zero, and close and reopen any commercial fishery, once a quota has been established through the procedure described above; and such quota has been filled. When such action is necessary, the RA will recommend that the Secretary publish a notice in the Federal Register as soon as possible.

APPENDIX B – TABLES

Table 1. Trends of Fishing Mortality & Spawning Stock Biomass – GOM Stock

SSB VPA estimated value Million hydrated eggs					SSB/MSST				
Year	Deterministic	low CI	Median	upp CI	Year	Deterministic	low CI	Median	upp CI
1981	2123	2103	2111	2124	1981	0.811	0.804	0.807	0.812
1982	2036	2015	2023	2036	1982	0.778	0.770	0.773	0.779
1983	1555	1532	1541	1556	1983	0.594	0.586	0.589	0.595
1984	1590	1565	1574.5	1591	1984	0.607	0.598	0.602	0.608
1985	1502	1473	1484	1503	1985	0.574	0.563	0.567	0.575
1986	1532	1495	1509	1534	1986	0.585	0.572	0.577	0.586
1987	1590	1543	1561	1592	1987	0.607	0.590	0.597	0.608
1988	1731	1676	1697	1733	1988	0.661	0.641	0.649	0.662
1989	1748	1680	1706	1751	1989	0.668	0.643	0.652	0.669
1990	1885	1796	1830	1888	1990	0.720	0.687	0.700	0.722
1991	2040	1929	1972	2045	1991	0.779	0.738	0.754	0.782
1992	2215	2072	2126.5	2220	1992	0.846	0.792	0.813	0.849
1993	2245	2070	2137.5	2252	1993	0.857	0.792	0.817	0.861
1994	2265	2052	2134	2273	1994	0.865	0.785	0.816	0.869
1995	2210	1932	2038.5	2220	1995	0.844	0.739	0.779	0.849
1996	2340	1987	2123	2353	1996	0.894	0.760	0.811	0.900
1997	2443	2006	2174	2459	1997	0.933	0.767	0.831	0.940
1998	2509	1979	2185.5	2531	1998	0.958	0.757	0.835	0.967
1999	2658	2036	2286.5	2700	1999	1.015	0.779	0.874	1.032
2000	2788	2106	2396.5	2850	2000	1.065	0.806	0.916	1.089
2001	2876	2162	2487	2968	2001	1.098	0.828	0.951	1.134
2002	2873	2180	2526	3032	2002	1.097	0.834	0.966	1.159
2003	2872	2226	2578	3091	2003	1.097	0.851	0.987	1.180
2004	2955	2343	2728	3218	2004	1.129	0.896	1.043	1.227
2005	3285	2645	3116	3644	2005	1.255	1.012	1.191	1.394
2006	3921	3224	3846	4512	2006	1.498	1.237	1.471	1.725

F apical VPA Estimate Fishing Mortality Rate				
Year	Deterministic	low CI	Median	upp CI
1981	0.340	0.340	0.342	0.343
1982	1.008	1.008	1.012	1.014
1983	0.413	0.413	0.414	0.415
1984	0.427	0.427	0.429	0.430
1985	0.558	0.558	0.561	0.563
1986	0.556	0.556	0.561	0.565
1987	0.493	0.492	0.499	0.504
1988	0.368	0.367	0.383	0.393
1989	0.548	0.548	0.557	0.563
1990	0.422	0.421	0.439	0.449
1991	0.568	0.568	0.586	0.597
1992	0.713	0.711	0.732	0.745
1993	0.508	0.505	0.552	0.584
1994	0.681	0.679	0.707	0.724
1995	0.537	0.535	0.582	0.614
1996	0.378	0.375	0.420	0.451
1997	0.294	0.292	0.336	0.369
1998	0.313	0.311	0.362	0.401
1999	0.346	0.306	0.339	0.365
2000	0.313	0.259	0.286	0.313
2001	0.212	0.191	0.214	0.239
2002	0.177	0.158	0.185	0.220
2003	0.225	0.202	0.263	0.332
2004	0.223	0.176	0.210	0.257
2005	0.239	0.195	0.233	0.279
2006	0.288	0.212	0.254	0.313

Fcurr/ MFMT				
Year	Deterministic	low CI	Median	upp CI
1983	1.446	1.385	1.530	1.647
1984	1.434	1.376	1.520	1.637
1985	1.398	1.347	1.489	1.607
1986	1.343	1.294	1.431	1.544
1987	1.440	1.387	1.532	1.654
1988	1.613	1.558	1.726	1.863
1989	1.846	1.790	1.983	2.141
1990	1.754	1.713	1.899	2.053
1991	2.027	1.974	2.187	2.367
1992	1.866	1.829	2.032	2.199
1993	1.984	1.957	2.186	2.382
1994	1.942	1.924	2.169	2.373
1995	2.095	2.077	2.365	2.603
1996	1.898	1.889	2.159	2.379
1997	1.536	1.516	1.754	1.935
1998	1.267	1.233	1.424	1.570
1999	1.231	1.165	1.323	1.453
2000	1.273	1.153	1.290	1.412
2001	1.132	0.974	1.119	1.236
2002	0.854	0.738	0.843	0.942
2003	0.765	0.709	0.826	0.958
2004	0.778	0.692	0.810	0.952
2005	0.826	0.728	0.899	1.106
2006	0.827	0.714	0.828	0.969

Appendix B - Table 2. Trends of Fishing Mortality and Spawning Stock Biomass - Atlantic Stock

SSB VPA Estimated Value Million Hydrated Eggs					SSB/MSST				
Year	Deterministic	low CI	Median	upp CI	Year	Deterministic	low CI	Median	upp CI
1981	4508	4496	4509	4551	1981	2.468	2.463	2.470	2.492
1982	4568	4555	4569	4615	1982	2.501	2.495	2.503	2.528
1983	4587	4573	4589	4640	1983	2.512	2.505	2.514	2.541
1984	4498	4483	4500	4555	1984	2.463	2.455	2.465	2.495
1985	4418	4400	4420	4483	1985	2.419	2.410	2.421	2.455
1986	4275	4253	4277	4353	1986	2.341	2.330	2.343	2.383
1987	4086	4059	4089	4182	1987	2.237	2.224	2.240	2.290
1988	3873	3842	3877	3985	1988	2.121	2.105	2.124	2.182
1989	3555	3520	3559	3682	1989	1.947	1.928	1.950	2.015
1990	3545	3500	3550	3705	1990	1.941	1.917	1.945	2.028
1991	3580	3520	3587	3797	1991	1.960	1.928	1.965	2.078
1992	3369	3294	3377	3640	1992	1.845	1.804	1.851	2
1993	3098	3010	3108	3416	1993	1.696	1.648	1.703	1.869
1994	2962	2861	2973	3328	1994	1.622	1.567	1.629	1.820
1995	2873	2753	2887	3307	1995	1.573	1.508	1.582	1.808
1996	2847	2698	2864	3383	1996	1.559	1.478	1.570	1.849
1997	2824	2643	2844	3474	1997	1.546	1.448	1.559	1.898
1998	2701	2494	2722.5	3439	1998	1.479	1.367	1.493	1.877
1999	2641	2410	2664.5	3433	1999	1.446	1.320	1.459	1.872
2000	2640	2382	2658.5	3442	2000	1.446	1.305	1.456	1.883
2001	2476	2194	2485.5	3258	2001	1.356	1.202	1.361	1.782
2002	2377	2069	2374	3119	2002	1.302	1.134	1.300	1.706
2003	2341	2000	2320	3008	2003	1.282	1.095	1.271	1.647
2004	2365	1958	2336	3038	2004	1.295	1.074	1.280	1.657
2005	2433	1973	2426.5	3102	2005	1.332	1.081	1.329	1.697
2006	2443	1951	2476.5	3203	2006	1.338	1.071	1.357	1.749

F Apical VPA Estimate Fishing Mortality Rate

Year	Deterministic	low CI	Median	upp CI
1981	0.442	0.440	0.442	0.443
1982	0.386	0.383	0.386	0.387
1983	0.382	0.378	0.381	0.382
1984	0.287	0.284	0.287	0.288
1985	0.441	0.437	0.441	0.442
1986	0.288	0.284	0.288	0.289
1987	0.208	0.205	0.208	0.209
1988	0.287	0.282	0.287	0.289
1989	0.219	0.213	0.219	0.220
1990	0.331	0.320	0.331	0.334
1991	0.311	0.297	0.311	0.316
1992	0.345	0.325	0.344	0.351
1993	0.318	0.293	0.317	0.326
1994	0.252	0.226	0.251	0.260
1995	0.361	0.318	0.360	0.376
1996	0.366	0.314	0.364	0.383
1997	0.390	0.320	0.388	0.416
1998	0.315	0.240	0.312	0.346
1999	0.233	0.165	0.230	0.264
2000	0.263	0.203	0.259	0.298
2001	0.285	0.248	0.287	0.305
2002	0.269	0.245	0.274	0.294
2003	0.358	0.284	0.362	0.406
2004	0.377	0.324	0.393	0.455
2005	0.344	0.296	0.373	0.458
2006	0.359	0.310	0.409	0.534

Fcurr/ MFMT

Year	Deterministic	low CI	Median	upp CI
1983	0.914	0.784	0.854	0.919
1984	0.745	0.637	0.695	0.749
1985	0.754	0.645	0.704	0.758
1986	1.010	0.863	0.943	1.016
1987	0.804	0.684	0.751	0.808
1988	0.613	0.521	0.572	0.616
1989	0.623	0.528	0.581	0.625
1990	0.669	0.566	0.625	0.672
1991	0.683	0.575	0.638	0.684
1992	0.815	0.680	0.762	0.817
1993	0.974	0.802	0.912	0.977
1994	0.937	0.758	0.878	0.940
1995	0.831	0.658	0.780	0.835
1996	0.906	0.703	0.852	0.913
1997	1.154	0.873	1.086	1.165
1998	1.025	0.746	0.965	1.043
1999	0.783	0.530	0.737	0.814
2000	0.705	0.477	0.666	0.739
2001	0.725	0.517	0.687	0.747
2002	0.718	0.551	0.684	0.740
2003	0.771	0.628	0.741	0.814
2004	0.893	0.725	0.877	0.983
2005	0.984	0.811	0.985	1.150
2006	1.006	0.869	1.076	1.306

Deterministic Run Yield Landings Million Pounds – Gulf of Mexico

Projections Final Model

Year	F30%SPR	F40%SPR	F 85%SPR30	F 75%SPR30	F 65%SPR30	Fcurrent
2007	11.810	11.810	11.810	11.810	11.810	11.810
2008	17.130	12.610	14.778	13.162	11.513	14.394
2009	17.491	13.543	15.496	14.050	12.513	15.157
2010	16.286	13.223	14.791	13.640	12.357	14.526
2011	14.240	12.046	13.215	12.366	11.369	13.023
2012	12.432	10.834	11.715	11.080	10.300	11.576
2013	11.277	10.018	10.732	10.221	9.568	10.622
2014	10.503	9.438	10.053	9.614	9.041	9.958
2015	10.148	9.200	9.755	9.361	8.834	9.672
2016	9.886	9.015	9.533	9.165	8.669	9.456

Projections adjusted for Dade-Monroe management unit

Year	F30%SPR	F40%SPR	F 85%SPR30	F 75%SPR30	F 65%SPR30	Fcurrent
2007	10.823	10.823	10.823	10.823	10.823	10.823
2008	15.258	11.200	13.164	11.726	10.258	12.992
2009	15.535	12.006	13.768	12.486	11.124	13.602
2010	14.524	11.772	13.194	12.170	11.028	13.067
2011	12.823	10.826	11.900	11.137	10.242	11.816
2012	11.293	9.814	10.638	10.060	9.351	10.585
2013	10.326	9.145	9.822	9.351	8.753	9.785
2014	9.685	8.677	9.265	8.858	8.330	9.234
2015	9.384	8.480	9.014	8.647	8.159	8.990
2016	9.162	8.328	8.828	8.485	8.024	8.807

Projections adjusted for Council boundary management unit

Year	F30%SPR	F40%SPR	F 85%SPR30	F 75%SPR30	F 65%SPR30	Fcurrent
2007	10.005	10.005	10.005	10.005	10.005	10.005
2008	14.271	10.488	12.312	10.967	9.594	12.085
2009	14.548	11.252	12.891	11.690	10.413	12.683
2010	13.578	11.013	12.333	11.375	10.307	12.172
2011	11.940	10.088	11.080	10.369	9.535	10.968
2012	10.477	9.115	9.871	9.335	8.678	9.794
2013	9.549	8.467	9.084	8.650	8.097	9.026
2014	8.930	8.010	8.545	8.171	7.683	8.495
2015	8.643	7.820	8.305	7.967	7.518	8.262
2016	8.431	7.673	8.126	7.811	7.387	8.088

Projections status quo catch Mixing-winter all GOM unit

Year	F30%SPR	F40%SPR	F 85%SPR30	F 75%SPR30	F 65%SPR30	Fcurrent
2007	14.266	14.266	14.266	14.266	14.266	14.266
2008	25.155	18.371	21.663	19.286	16.868	17.167
2009	24.956	19.180	22.068	20.000	17.805	18.082
2010	22.862	18.481	20.754	19.143	17.346	17.577
2011	19.698	16.685	18.323	17.176	15.820	15.999
2012	16.837	14.775	15.946	15.135	14.118	14.257
2013	14.601	13.102	13.986	13.380	12.586	12.696
2014	12.897	11.693	12.416	11.925	11.263	11.354
2015	12.086	11.039	11.676	11.244	10.653	10.734
2016	11.548	10.591	11.177	10.781	10.232	10.307

Appendix B - Table 4. Proportions of Catch by Stock Unit at Different Boundaries in the FL East Coast

Deterministic Run Yield Landings Million Pounds - Atlantic

Projections Final Model

Year	F30%SPR	F40%SPR	F 85%SPR30	F 75%SPR30	F 65%SPR30	Fcurrent
2007	9.277	9.277	9.277	9.277	9.277	9.277
2008	9.453	6.669	8.170	7.291	6.391	9.504
2009	9.248	6.956	8.236	7.498	6.706	9.288
2010	9.154	7.240	8.344	7.718	7.017	9.184
2011	9.132	7.522	8.477	7.943	7.319	9.156
2012	8.860	7.476	8.314	7.851	7.295	8.880
2013	8.788	7.549	8.309	7.893	7.379	8.805
2014	8.794	7.665	8.369	7.985	7.507	8.810
2015	8.737	7.672	8.338	7.979	7.520	8.750
2016	8.704	7.685	8.327	7.981	7.538	8.717

Projections adjusted for Dade-Monroe management unit

Year	F30%SPR	F40%SPR	F 85%SPR30	F 75%SPR30	F 65%SPR30	Fcurrent
2007	10.264	10.264	10.264	10.264	10.264	10.264
2008	11.326	8.079	9.784	8.726	7.645	10.906
2009	11.205	8.493	9.965	9.062	8.096	10.843
2010	10.915	8.692	9.941	9.188	8.346	10.644
2011	10.548	8.743	9.791	9.172	8.447	10.363
2012	9.999	8.495	9.391	8.871	8.244	9.871
2013	9.738	8.421	9.220	8.762	8.194	9.642
2014	9.612	8.427	9.157	8.741	8.218	9.534
2015	9.501	8.392	9.079	8.692	8.195	9.432
2016	9.427	8.372	9.031	8.661	8.182	9.366

Projections adjusted for Council boundary management unit

Year	F30%SPR	F40%SPR	F 85%SPR30	F 75%SPR30	F 65%SPR30	Fcurrent
2007	11.082	11.082	11.082	11.082	11.082	11.082
2008	12.312	8.791	10.636	9.486	8.310	11.813
2009	12.192	9.247	10.842	9.858	8.807	11.762
2010	11.861	9.450	10.802	9.983	9.068	11.539
2011	11.432	9.480	10.611	9.940	9.154	11.211
2012	10.815	9.194	10.158	9.596	8.917	10.663
2013	10.516	9.099	9.957	9.463	8.850	10.401
2014	10.367	9.093	9.877	9.429	8.865	10.273
2015	10.242	9.052	9.789	9.372	8.836	10.159
2016	10.159	9.027	9.734	9.335	8.819	10.085

Projections status quo catch Mixing-winter all GOM unit

Year	F30%SPR	F40%SPR	F 85%SPR30	F 75%SPR30	F 65%SPR30	Fcurrent
2007	7.756	7.756	7.756	7.756	7.756	7.756
2008	8.710	6.149	7.535	6.729	5.902	8.071
2009	8.221	6.202	7.335	6.687	5.990	7.747
2010	7.981	6.340	7.291	6.757	6.153	7.619
2011	7.897	6.543	7.355	6.905	6.376	7.617
2012	7.502	6.347	7.050	6.665	6.199	7.271
2013	7.423	6.389	7.026	6.682	6.252	7.222
2014	7.405	6.466	7.055	6.737	6.338	7.229
2015	7.330	6.442	7.002	6.702	6.318	7.167
2016	7.293	6.444	6.982	6.695	6.325	7.139

