PUBLIC HEARING

SUMMARY

of

COASTAL MIGRATORY PELAGICS (MACKEREL) AMENDMENT 18

The Gulf of Mexico, South Atlantic, and Mid-Atlantic Fishery Management Councils (Councils) are developing regulations to bring the coastal migratory pelagics (king & Spanish mackerel and cobia) fishery management plan into compliance with new requirements of the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) and to meet requirements of the Endangered Species Act. The Coastal Migratory Pelagics fishery management plan is jointly managed by the Gulf of Mexico, South Atlantic, and Mid-Atlantic Fishery Management Councils (Councils). The regulations are expected to be implemented in 2012.

This document is intended to serve as a SUMMARY for all the actions and alternatives in Coastal Migratory Pelagics Amendment 18/Environmental Assessment. It outlines the alternatives with a focus on the preferred alternatives. It also provides background information and includes a summary of the expected biological and socio-economic effects from the management measures.

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BACKGROUND

What Actions Are Being Proposed?

The Councils are specifying, where applicable, the following for many managed species:

- changes to species compositions;
- control rules for acceptable biological catch;
- annual catch limits;
- annual catch targets;
- allocations; and,
- accountability measures

Who is Proposing Action?

The Gulf of Mexico, South Atlantic, and Mid-Atlantic Fishery Management Councils (Councils) are proposing the actions. The Councils develop the regulations and submits them to the National Marine Fisheries Service (NMFS) who ultimately approves, disapproves, or partially approves the actions in the amendment on behalf of the Secretary of Commerce. NMFS is an agency in the National Oceanic and Atmospheric Administration.

Gulf of Mexico, South Atlantic & Mid-Atlantic Fishery Management Councils

- Responsible for conservation and management of fish stocks
- South Atlantic Council consists of 13 voting members who are appointed by the Secretary of Commerce
- Management area is from 3 to 200 miles off the coasts of New York through Texas; 9-200 miles off Florida West Coast & Texas.
- Responsible for developing fishery management plans and recommends regulations to NMFS and NOAA for implementation

Where is the Project Located?

Management of the Federal coastal migratory pelagics fishery, located in the Mid-Atlantic, South Atlantic, and Gulf of Mexico in the 3-200 nautical mile (nm) (9-200 nm off Florida West Coast & Texas) U.S. Exclusive Economic Zone (EEZ), is conducted under the Fishery Management Plan (FMP) for the Coastal Migratory Pelagics Resources in the Atlantic and Gulf of Mexico (GMFMC/SAFMC 1982, as amended) (**Figure 1-1**).

Figure 1-1. Jurisdictional boundaries of the South Atlantic, Gulf of Mexico, & Mid-Atlantic Fishery Management Councils.



Which Species Will Be Affected ?

These actions would apply to the following species:

- King mackerel, *Scomberomorus cavalla*
- Spanish mackerel, *Scomberomorus maculatus*
- Cobia, *Rachycentron canadum*
- Bluefish, *Pomatomus saltatrix* (Gulf of Mexico only)
- Cero, *Scomberomorus regalis*
- Little tunny, *Euthynnus alleteratus*
- Dolphin, *Coryphaena hippurus* (Gulf of Mexico only)

Why are the Councils Considering Action?

The Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) requires the Regional Fishery Management Councils and NOAA Fisheries Service to prevent overfishing while achieving optimum yield (OY) from each fishery. When it is determined a stock is undergoing overfishing, measures must be implemented to end overfishing. In cases where stocks are overfished, the Councils and NOAA Fisheries Service must implement rebuilding plans. Revisions to the Reauthorized Magnuson-Stevens Act in 2006 require that by 2010, Fishery Management Plans (FMPs) for fisheries determined by the Secretary to be subject to overfishing establish a mechanism for specifying annual catch limits (ACLs) at a level that prevents overfishing and does not exceed the recommendations of the respective Council's Scientific and Statistical Committee (SSC) or other established peer review processes. These FMPs must also establish, within this timeframe, measures to ensure accountability. By 2011, FMPs for all other fisheries, except fisheries for species with annual life cycles, must meet these requirements. The Councils are addressing the coastal migratory pelagic species in this amendment.



CATEGORIES OF ACTIONS

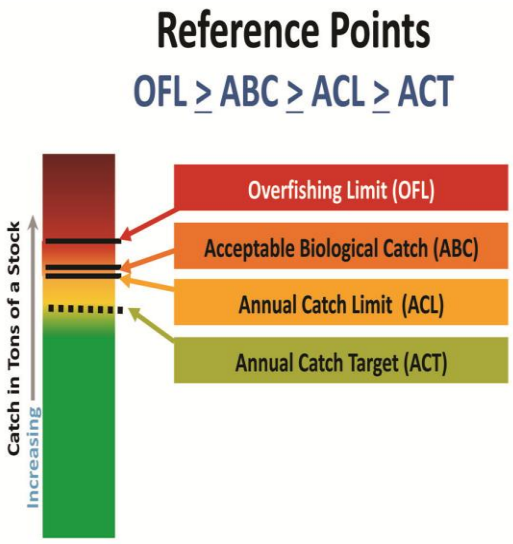
There are six categories of actions in Coastal Migratory Pelagics Amendment 18.

- **Changes to Species Compositions**

The Council is considering removing species from the Coastal Migratory Pelagics Fishery Management Unit.

- **Control Rules for Acceptable Biological Catch**

Acceptable Biological Catch (ABC) is the range of estimated allowable catch for a species of species group. *ABC Control Rule* is a policy for establishing a limit or target fishing level that is based on the best available scientific information and is established by fishery managers in consultation with fisheries scientists. Control rules should be designed so that management actions become more conservative as biomass estimates, or other proxies, for a stock or stock complex decline and as science and management uncertainty increases.



- **Annual Catch Limits**

Annual catch limit (ACL) is the level of catch that triggers accountability measures. It is expressed either in pounds or numbers of fish. The level may not exceed the Acceptable Biological Catch.

- **Annual Catch Targets**

Annual catch target (ACT) is an amount of annual catch of a stock or stock complex that is the management target of the fishery, and accounts for management uncertainty in controlling the actual catch at or below the ACL. ACTs are recommended in the system of accountability measures so that ACL is not exceeded.

- **Allocations**

Allocation is distribution of the opportunity to fish among user groups or individuals. The share a user group gets is sometimes based on historic harvest amounts.

- **Accountability Measures**

Accountability measure is an action taken in order to avoid exceeding an identified catch level (usually the ACL). The following are four AMs: specification of an Annual Catch Target (ACT), in-season regulations changes, post-season regulation changes, and specification of management measures (e.g., bag limits).

Purpose and need of the proposed action

The *purpose* of Amendment 18 is to:

- bring the Coastal Migratory Pelagics FMP into compliance with Magnuson-Stevens Act requirements for ACLs and AMs to prevent overfishing;
- update biological reference points, policies, and procedures; and
- consider adjustments to update the framework procedure.

The *need* for the action is to keep the Coastal Migratory Pelagic species at levels that will produce optimum yield (OY). Optimum yield, the ultimate goal of any fishery management plan, is the level of harvest that provides the greatest economic, social, and ecological benefit to the nation.

List of Management Actions

There are 21 *actions* in Amendment 18 that will accomplish the purpose and need. Actions 1-3 are joint actions and the Councils must approve. Actions 4-12 address Gulf Council actions. The Gulf Council will conduct separate public hearings on the 3 joint actions and their Gulf only actions prior to June. The South Atlantic Council is conducting public hearings on the 3 joint actions and the Atlantic only actions (Actions 13-21).

Joint Actions

Action 1: Modifications to the Fishery Management Unit
Action 2: Modify the Framework Procedure
Action 3: Establish Separate Atlantic and Gulf Migratory Groups of Cobia

Atlantic King Mackerel



Action 13: Specify MSY, MSST, MFMT/OFL, ABC, OY, ACL (TAC), & ACT
Action 13.1: MSY, MSST & MFMT
Action 13.2: Overfishing Level (OFL)
Action 13.3: ABC Control Rule & ABC
Action 13.4: ACL & OY
Action 13.5: ACT
Action 14: AMs
Action 15: Management Measures

Atlantic Spanish Mackerel



Action 16: Specify MSY, MSST, MFMT/OFL, ABC, OY, ACL (TAC), & ACT
Action 16.1: MSY, MSST & MFMT
Action 16.2: Overfishing Level (OFL)
Action 16.3: ABC Control Rule & ABC
Action 16.4: ACL & OY
Action 16.5: ACT
Action 17: AMs
Action 18: Management Measures

Atlantic Cobia



Action 19: Specify MSY, MSST, MFMT/OFL, ABC, OY, ACL (TAC), & ACT
Action 19.1: MSY, MSST & MFMT
Action 19.2: Overfishing Level (OFL)
Action 19.3: ABC Control Rule & ABC
Action 19.4: Allocations
Action 19.5: ACL & OY
Action 19.6: ACT
Action 20: AMs
Action 21: Management Measures

ACTIONS IN COASTAL MIGRATORY PELAGICS AMENDMENT 18

1. Removing Species from Unit

The Councils manage 7 species in the "Coatal Migratory Pelagics Fishery Management Unit". The Councils are concerned that the requirement for ACLs and AMs for some species will create a significant administrative burden to science and the administrative environment as landings are minimial and variable over time; specification of ACLs and AMs could trigger common overages. In addition, many of these species have state regulations. Therefore, the Councils are considering a re-organization of the coastal migratory pelagics complex by removing species from the complex. The Councils are proposing in their preferred alternative the species highlighted in yellow below be removed from the complex.

Removal

Common Name	Scientific Name
Cero	*Scomberomorus regalis*
Little tunny	*Euthynnus alleteratus*
Dolphin Gulf only)	*Coryphaena hippurus*
Bluefish (Gulf only)	*Pomatomus saltatrix*

The preferred alternative would remove species based on the following criteria:

(1) Low landings
(2) Not targeted; some landed as bycatch in shrimp fishery
(3) Under State Regulations – more conservative than Federal

Action 1 (Modifications to Fishery Management Unit) Alternatives

Alternative 1. No Action – Retain the following species in the Fishery Management Plan for data collection purposes only, but do not add them to the Fishery Management Unit: cero, little tunny, dolphin (Gulf only), and bluefish (Gulf only).

Alternative 2. Add the following species to the Fishery Management Unit and set annual catch limits and accountability measures:

Option a. Cero
- Suboption i: In the Gulf of Mexico region
- Suboption ii: In the South Atlantic region

Option b. Little tunny
- Suboption i: In the Gulf of Mexico region
- Suboption ii: In the South Atlantic region

Option c. Dolphin (In the Gulf of Mexico region only)

Option d. Bluefish (In the Gulf of Mexico region only)

Preferred Alternative 3. Remove the following species from the Fishery Management Plan:

Option a. Cero
- Suboption i: In the Gulf of Mexico region
- Suboption ii: In the South Atlantic region

Option b. Little tunny
- Suboption i: In the Gulf of Mexico region
- Suboption ii: In the South Atlantic region

Option c. Dolphin
- Suboption i: In the Gulf of Mexico region
- Suboption ii: In the South Atlantic region

Option d. Bluefish (In the Gulf of Mexico region only)

Impacts from Action 1 (Modifications to Fishery Management Unit)

Biological/Ecological & Physical

Alternative 1 would not meet the National Standard 1 guidelines and have the same impacts to the physical or biological environments as currently exist. **Alternatives 2** would add these species to the FMU and the Council would set ACLs and AMs. This alternative would be expected to have positive impacts on the physical and biological environments if catch is constrained below current levels. **Alternative 3** would remove all of the other species from the fishery management plan. If other agencies, such as the individual states, took over management, positive physical and biological impacts could occur. If another agency did not take over management of other species, and overfishing or detriment to the resource occurred without our knowledge, negative physical and biological impacts would be expected.

Economic

The economic effects of **Alternatives 1-3** are based on the expected biological effects of the alternatives. While implementation of **Alternative 2** would cap harvest, **Alternatives 1 and 3 (Preferred)** would not and this might result in higher short-term economic benefits from **Alternatives 1 and 3 (Preferred)**. However, under **Preferred Alternative 3**, removal of the listed species from the CMP FMP leaves the removed species more vulnerable than if they are retained for data collection purposes only (**Alternative 1**) while **Alternative 2** would offer the greatest protection by setting ACLs and AMs for the four species. However, if the states take over management of the species under **Preferred Alternative 3**, an improvement in management could be expected. For these reasons, **Alternative 2** is expected to offer the greatest long-term economic benefit followed by **Alternative 1** and **Preferred Alternative 3**.

Social

This action would have indirect effects on the social environment due to additional data and management required to implement ACLs and monitor landings for Cero and Little Tunny in **Alternative 1** and **Alternative 2**. For some species that are caught infrequently and in low numbers it may be more efficient to exclude those from management as the difficulty in tracking landings and monitoring could prove costly to implement by assigning ACLs to all. Ultimately, this could have negative effects on commercial and recreational sectors for King Mackerel, Spanish Mackerel, and Cobia.

By removing Cero (**Option 3-a**) and Little Tunny (**Option 3-b**) from the FMP, **Preferred Alternative 3** would have positive indirect effects on the social environment in that management for remaining CMP stocks could be streamlined. Removal of Dolphin (**Option 3-c)** will update the FMP language to reflect the existence of a separate FMP for Dolphin in the Atlantic.

Administrative

Alternative 1 would not remove any species from the FMU and would result in increased administrative impacts associated with establishing ACLs and AMs. Under **Alternative 1**, king and Spanish mackerel and cobia would remain in the FMU and ACLs and AMs would be required. **Alternative 2** would add cero, little tunny, dolphin in the Gulf and bluefish in the Gulf to the FMU. This would increase the administrative burden associated with establishing ACLs and AMs for those species. **Alternative 3** would remove the same species from the FMP resulting in less administrative burden with regards to establishing ACLs and AMs. However, removing these species from the FMP (rather than the FMU) may make it more difficult to develop management measures for these species if the need arises.

2. Modify the Framework Procedure

The Councils currently have three different regulatory vehicles for addressing fishery management issues. First, a full amendment may be developed to implement management measures. The amendment process can take one to three years depending on the type of NEPA document needed to support the amendment actions. Second, the Council may vote to request an interim or emergency rule that could remain effective for 180 days with the option to extend it for an additional 186 days. Interim and emergency rules are only meant as short-term management tools while permanent regulations are developed through an FMP amendment. Third, the Councils may prepare a regulatory amendment (hereafter called a framework action) based on the framework procedure, previously included through an amendment, which allows changes in specific management measures and parameters. Typically, framework actions take less than a year to implement, and are effective until amended.

Action 2 (Modify the Framework Procedure) Alternatives

Alternative 1. No Action – Do not modify the framework procedure.

Alternative 2. Update the framework procedure to incorporate the SEDAR process and adjustments to ACLs (Appendix A).

Alternative 3. Revise the framework procedure to incorporate the SEDAR process and adjustments to ACLs, and expand the procedure to allow adjustments of greater range of management measures under specific procedural guidelines.

Preferred Option 1. Adopt the base Framework Procedure (Appendix B)
Option 2. Adopt the more broad Framework Procedure (Appendix C)
Option 3. Adopt the more narrow Framework Procedure (Appendix D)

The preferred alternative would modify the framework procedure:

(1) Update to add SEDAR
(2) Allow adjustments to ACLs, ACTs, & AMs
(3) Provide more flexibility to address changes
(4) Speed up management response

Allows managers to respond more quickly to changes in the fishery and outlines how the Councils and NMFS/NOAA work cooperatively to manage the Coastal Migratory Pelagics fishery.

Impacts from Action 2 (Modify the Framework Procedure)

Biological/Ecological & Physical

There are no direct physical, biological, or ecological effects expected from modifications of the framework procedure. However, if modifications increase the ease with which regulations can be implemented as needed, long-term biological benefits will increase. **Alternatives 2 and 3** offer the greater management flexibility and therefore are expected to offer greater long-term biological benefits than **Alternative 1 (No Action)**; **Alternative 3** offers the greatest efficiency and effectiveness of management change and therefore largest expected long-term biological benefits. The physical environment would be indirectly impacted if a more flexible framework is implemented.

Economic

There are no direct economic effects expected from modifications to the framework procedure. However, if modifications increase the ease with which regulations can be implemented as needed, long-term economic benefits will increase as a consequence of increases in biological benefits. Since **Alternative 2** and **Alternative 3 (Including Preferred Option 1)** offer greater management flexibility and therefore are expected to offer greater long-term economic benefits than **Alternative 1 (No Action)** with **Alternative 3 (including Preferred Option 1)** offering the greatest efficiency and effectiveness of management change and therefore largest expected long-term economic benefits.

Social

Alternative 1 would allow for neither updates in the management framework procedure nor development of a process to incorporate new information to adjust ACLs. This could negatively impact the recreational and commercial fishing sectors should new data indicate that a stock had improved but the Council had no means to rapidly increase the ACL, resulting in loss of opportunity, income, and/or recreational angling experiences. **Alternative 2** and **Alternative 3** would generate indirect positive effects on the social environment with the framework modifications to incorporate a procedure for adjusting ACLs; updating text to reflect adoption of SEDAR as the source of stock assessment information (**Alternative 2** and **Alternative 3**) would provide consistency in language with regulatory changes and have few effects on the social environment. **Preferred Alternative 3, Option 1** will most likely result in positive social benefits in that it gives a clear and flexible procedure for the Council to make a management change. **Option 2** and **Option 3** will also provide the same outcome, but **Option 2** forfeits public participation and advisory panel input for a shorter timeline while **Option 3** works with more participation but a longer timeline to implementation. These more rigid procedures require the choice between timeliness and participation for all future management actions, both of which are important but in different situations. For example, while **Option 2** allows for timeliness by requiring discussion at only one council meeting (while **Option 3** requires three council meeting discussions), there may be a time when lack of discussion leads to negative social impacts.

Administrative

Framework amendments generally require less time and staff effort and would lessen the administrative burden on the agency. **Alternative 3**, **Option 1** would provide the most flexibility in the preparation of framework amendments, resulting in the least administrative burden on the agency. **Alternative 3**, **Option 3** would have tighter guidelines of when a framework can be used as well as the amount of public discussion and the involvement of the SSC, SEP, or APs. **Alternative 3, Option 3** is the most restrictive of options but would offer more flexibility than **Alternative 1** or **Alternative 2.**

3. Establish Separate Atlantic and Gulf Migratory Groups of Cobia

Currently the CMP FMP considers there is only one stock of cobia that includes the Gulf and Atlantic through New York. Genetic and tagging work show mixing between the Atlantic and Gulf coasts. A previous stock assessment was done for cobia in the Gulf using the Miami-Dade/Monroe County line as the boundary. More recent unpublished data from research conducted by South Carolina DNR indicate a homogenous offshore group, including the Florida Panhandle area, with distinct inshore aggregations in the Atlantic.

The preferred alternative would establish separate Atlantic & Gulf Migratory Groups of Cobia:

(1) Track boundary proposed for black grouper
(2) Different from king & Spanish mackerel
(3) Allow Gulf & South Atlantic/Mid-Atlantic Council to manage cobia separately
(4) Addresses new genetic results from SCDNR



Action 3 (Establish Separate Atlantic and Gulf Migratory Groups of Cobia) Alternatives
Alternative 1. No Action – Maintain one group of cobia.
Alternative 2. Separate the two migratory groups at the Miami-Dade/Monroe County line.
Preferred Alternative 3. Separate the two migratory groups at the SAFMC/MAFMC boundary.

Impacts from Action 3 (Establish Separate Atlantic and Gulf Migratory Groups of Cobia)

Biological/Ecological & Physical

There are no direct physical, biological, or ecological effects from the separation of Atlantic and Gulf migratory groups of cobia because this is a management decision. Cobia mix in the Atlantic and Gulf and as long as both migratory groups are managed to prevent overfishing there will be no negative biological effects.

Economic

While there are no direct economic effects from the separation of Atlantic and Gulf migratory groups of cobia, where the management boundary is established could have distributional impacts on fishermen. Also, management and enforcement difficulties resulting from the three alternatives could have a negative effect on long-term economic benefits.

Social

Overall, this action will most likely have the largest social impact on the Florida Keys. Continuing to manage cobia as one stock, as under **Alternative 1**, would have little effects on the social environment, as this is how the stock has been managed since 1982 when the CMP FMP was implemented. There may be some negative social impacts on the both the commercial and recreational sectors in south Florida due to changes in distribution under **Alternative 2** and **Preferred Alternative 3.** Additionally, **Preferred Alternative 3** will split Monroe County, requiring additional burden and increased risk of misreporting because fishermen move from oceanside to bayside on a regular basis.

Administrative

Establishing separate migratory groups of cobia for management purposes would be a procedural issue and would not increase the administrative burden. However, any permits associated with the single stock of cobia (status quo) would need to be revised and re-issued if **Alternative 2** or **Preferred Alternative 3** were selected. The administrative burden associated with revising and re-issuing necessary permits is expected to be significant.

Gulf of Mexico Fishery Management Council Actions

Actions 4-12 address Gulf Council Actions that are currently being finalized. The Gulf Council will conduct separate public hearings on the 3 joint actions and their Gulf only actions (Actions 4-12) prior to June. The South Atlantic Council is conducting public hearings on the 3 joint actions and their South Atlantic only actions (Actions 13-21).

4.4 Action 4. Set ACL for Gulf Group Cobia

4.5 Action 5. Set ACT for Gulf Group Cobia

4.6 Action 6. Set AMs for Gulf Group Cobia

4.7 Action 7. Set ACL for Gulf Migratory Group King Mackerel

4.8 Action 8. Set ACT for Gulf Migratory Group King Mackerel

4.9 Action 9. Set AMs for Gulf Migratory Group King Mackerel

4.10 Action 10. Set ACL for Gulf Migratory Group Spanish Mackerel

4.11 Action 11. Set ACT for Gulf Migratory Group Spanish Mackerel

4.12 Action 12. Set AMs for Gulf Migratory Group Spanish Mackerel

13. Specify MSY, MSST, MFMT/OFL, ABC, OY, ACL & ACT for Atlantic Migratory Group King Mackerel

Atlantic migratory group king mackerel were last assessed in SEDAR 16 (2008) with data through 2006. The fishing mortality and biomass parameters were accepted by the SEDAR Review Panel and the Councils Scientific and Statistical Committee. SEDAR 33, which begins in 2012 and is scheduled to be completed in 2013, will assess the three species in the CMP FMP including Atlantic migratory group king mackerel with data through 2011.

Action 13.1 MSY, MSST & MFMT for Atlantic Migratory Group King Mackerel

The Councils have determined that the value for MSY is the value of yield at F_{MSY} from the most recent stock assessment. Currently MSY = 10.4 million pounds. Based on the SEDAR 16 assessment, MSY = 8.964 million pounds. Based on updated projections, MSY = 9.357-12.836 million pounds whole weight.

The Council has determined that the value for MSST is the value from the most recent stock assessment based on MSST = [(1-M) or 0.5 whichever is greater]*B_{MSY}. Currently MSST = 0.85(B_{MSY}) with no poundage estimated. Based on the SEDAR 16 assessment, MSST = 1,827.5 billion hydrated eggs.
The Council has determined that the value for MFMT is the value of F_{MSY} or proxy from the most recent stock assessment. Currently MFMT = F_{MSY} = $F_{30\%SPR}$ with no poundage estimated. Based on the SEDAR 16 assessment, MFMT = F_{MSY} = $F_{30\%SPR}$ = 0.256.
There are no alternatives under consideration because these values are being updated from the latest SEDAR stock assessment.

Action 13.2 Overfishing Level (OFL) for Atlantic Migratory Group King Mackerel

The Scientific and Statistical Committee provided the following OFL at their April 2010 meeting: "The OFL for king mackerel is 12.8359 million pounds (corresponds to yield at $F_{30\%SPR}$, the accepted MSY proxy from the last stock assessment)." Note: This is the expected yield in 2011.

There are no alternatives under consideration because the overfishing level has been provided by the SSC.

Action 13.3 ABC Control Rule and ABC for Atlantic Migratory Group King Mackerel

Alternative 1. No Action. Do not establish an ABC Control Rule for Atlantic migratory group king mackerel.

Preferred Alternative 2. Adopt the SAFMC SSC recommended ABC control rule and establish ABC as 10.46 million pounds (MP).

Alternative 3. Establish an ABC Control Rule where ABC equals OFL (12.8359 million pounds).

Alternative 4. Establish an ABC Control Rule where ABC equals a percentage of OFL.

Alternative 4a: ABC = 65%OFL (8.3433 million pounds)
Alternative 4b: ABC = 75%OFL (9.6269 million pounds)
Alternative 4c: ABC = 85%OFL (10.9105 million pounds)

Maximum Sustainable Yield (MSY)
Largest long-term average catch or yield that can be taken from a stock or stock complex under prevailing ecological and environmental conditions.

- The Councils must set MSY.
- MSY for Atlantic Migratory Group King Mackerel = 9.357 – 12.836 million pounds whole weight

Overfishing
- None now
- Overfishing if landings are greater than 12.8359 million pounds whole weight

ABC
- Adopt SAFMC SSC's Control Rule
- ABC = 10.46 million pounds whole weight

Impacts from Action 13.1-13.3 (Specify MSY, MSST, MFMT/OFL, ABC for Atlantic Migratory Group King Mackerel**)**

Biological/Ecological & Physical

While there are no direct biological effects from identification of an ABC, it does set the upper limit on the level of landings that will be allowed for fishermen and prevents overfishing. **Alternative 1** (No Action) would not meet the new Magnuson-Stevens Act requirements. **Alternative 2** would adopt the SAFMC SSC recommended ABC control rule and would be expected to provide the greatest biological benefits over the long term by accounting for assessment uncertainty while preventing overfishing. **Alternative 3** provides the highest level of landings of all the alternatives but carries more biological risk and exceeds the SSC recommendations which could lead to overfishing and negative biological effects. **Alternative 4a-4c** range from providing less biological protection to more as compared to **Alternative 2**. Setting an ABC could affect the physical environment if effort changes from current levels.

Economic

While there are no direct economic effects from identification of an ABC, it does set the upper limit on the level of landings that will be allowed for fishermen to harvest. In general, a higher ABC is expected to result in higher short-term economic benefits and smaller long-term economic benefits. **Alternative 3** provides the highest level of landings of all the alternatives and therefore is expected to bring about the highest short-term economic benefits. It could also bring about the highest long-term economic benefits as long as the risk of overfishing is very low. If the risk of overfishing is high, **Alternative 3** could provide the lowest long-term economic benefits. **Alternatives 4a and 4b** offer lower short-term economic benefits than **Alternatives 2 (Preferred) 3** and **4c** but also offer the highest long-term economic benefits.

Social

Establishment of the biological parameters for harvest thresholds will have few direct social effects. Impacts on the social environment are more indirect, resulting from the implementation of the ABC and any subsequent reduction when setting ACLs and ACTs. The more risk averse a control rule or threshold is, the more chances of negative social effects accruing in the short-term if harvest is reduced. The least restrictive ABC would result from **Alternative 3,** while **Alternative 4c** is the most restrictive, but all effects on the social environment will depend on subsequent decisions for the ACL and AMs following this action.

Administrative

The establishment of an ABC Control Rule is a procedural exercise. The rule is developed by the Council's SSC for consideration by the Council. Although the control rule can have implications on management actions, no specific management actions are required through the specification of the control rule. The administrative impacts of establishing a control rule are minimal and impacts would not differ much between the proposed alternatives.

13.4 **Specify OY & ACL** for Atlantic Migratory Group King Mackerel

Action 13.4 (Annual Catch Limit or ACL) Alternatives
Alternative 1. No action. Currently TAC or ACL =10.0 million pounds based on an ABC of 8.9 - 13.3 million pounds.
Preferred Alternative 2. ACL = OY = ABC = 10.46 million pounds which is the average of the ABC values for 2011-2013 recommended by the SSC.
Alternative 3. ACL = OY = ABC = 10.06 million pounds which is the lowest value within the 2011-2013 recommendations (10.06 – 10.95 million pounds).
Alternative 4. ACL = OY = ABC = 10.95 million pounds which is the highest value within the 2011-2013 recommendations (10.06 – 10.95 million pounds).
Alternative 5. ACL = OY = X% of ABC = _____ million pounds. **Sub-Alternative 5a.** ACL = 65%ABC = 65%(10.46) = 6.799 million pounds. **Sub-Alternative 5b.** ACL = 75%ABC = 75%(10.46) = 7.845 million pounds. **Sub-Alternative 5c.** ACL = 85%ABC = 85%(10.46) = 8.891 million pounds. **Sub-Alternative 5d.** ACL = 80%ABC = 80%(10.46) = 8.368 million pounds. **Sub-Alternative 5e.** ACL = 90%ABC = 90%(10.46) = 9.414 million pounds.

Impacts from Action 13.4 (Annual Catch Limit)

Biological/Ecological & Physical

Setting an ACL potentially will have an impact on the biological environment if harvest changes from current levels; however, this is not expected to be the case. **Alternatives 2-4** are based on the SSC recommendations and would prevent overfishing. **Alternative 5** would provide more biological protection by setting the ACL below the ABC. Setting an ACL could affect the physical environment if harvest changes from current levels; however this is not expected to be the case as most alternatives would maintain catches close to **Alternative 1**.

Economic

In general, a more conservative ACL would result in higher long-term economic benefits and smaller short-term economic benefits while the opposite is true of a larger ACL. **Alternative 4** offers the largest ACL and therefore the greatest short-term economic benefits to commercial and recreational fishermen but also the smallest long-term economic benefit due to the increased risk of overfishing. **Alternatives 2 (Preferred), 3, and 1 (No Action)** follow in descending order. **Alternatives 2 (Preferred)-4** would result in an economic gain in the short-term to commercial and recreational fishermen in comparison to the 10 million pound ACL under **Alternative 1 (No Action)**. The suite of alternatives proposed under **Alternative 5** are all lower than **Alternatives 1-4** and therefore offer less risk of overfishing and greater long-term economic benefits and smaller short-term economic benefits compared to **Alternatives 1-4**.

Social

In general, more restrictive ACLs will increase the risk of short-term negative impacts on commercial and recreational fishermen and communities. For the commercial and for-hire sectors, a more restrictive ACL could cause reduced effort and job loss if an operation cannot stay in business through low ACLs. However, successful management through ACLs will result in long-term overall benefits for the fishermen, communities, and general public as the resource is protected from overfishing. The most restrictive ACL scenarios are in **Alternative 5** (percentage of the ABC) and the least restrictive is **Alternative 4** (highest value within the 2011-2013 recommendations for ABC). **Preferred Alternative 2** is less restrictive than most other alternatives, which will most likely not result in the negative impacts expected from **Alternative 5.**

Administrative

The administrative impacts of specifying OY are minimal and would not differ much between the proposed alternatives. Specifying an ACL or sector ACLs alone would not increase the administrative burden over the status-quo. However, the monitoring and documentation needed to track the ACL can potentially result in a need for additional cost and personnel resources if a monitoring mechanism is not already in place. **Alternative 1,** would not meet the requirements of the Magnuson-Stevens Act for Atlantic migratory group king mackerel, and could be subject to litigation, which would result in a significant administrative burden on the agency.

13.5 Annual Catch Target (ACT) for Atlantic Migratory Group King Mackerel

Action 13.5a (Commercial Sector ACT) Alternatives

Preferred Alternative 1. Do not specify commercial sector ACTs for Atlantic migratory group king mackerel.

Alternative 2. The commercial sector ACT equals 90% of the commercial sector ACL.

Alternative 3. The commercial sector ACT equals 80% of the commercial sector ACL.

Commercial Sector ACT	
ACT Alt. 2; ACT=90%(ACL)	**ACT Alt. 3; ACT=80%(ACL)**
3.49	3.10

Action 13.5b (Recreational Sector ACT) Alternatives

Alternative 1 (No Action). Do not specify recreational sector ACTs for Atlantic migratory group king mackerel.

Alternative 2. The recreational sector ACT equals 85% of the recreational sector ACL.

Alternative 3. The recreational sector ACT equals 75% of the recreational sector ACL.

Preferred Alternative 4. The recreational sector ACT equals sector ACL[(1-PSE) or 0.5, whichever is greater].

Proportional Standard Errors (PSEs) from MRFSS/MRIP

Council used 5-year average because this better represents recent catches.

2003	2004	2005	2006	2007	2008	2009	3 year average (2007-09)	5 year average (2005-09)
5.6	5.8	6.1	5.6	5.8	6.3	6.5	6.2	6.1

Recreational Sector ACT		
ACT Alt. 2; ACT=85%(ACL)	**ACT Alt. 3; ACT=75%(ACL)**	**Preferred ACT Alt. 4; ACT equals sector ACL[(1-PSE) or 0.5, whichever is greater]**
5.59	4.94	6.18

Preferred Alternatives

Annual Catch Target (ACT)

- Optional to account for implementation uncertainty

Commercial ACT

- Do not specify
- Commercial quota monitoring expected to ensure commercial ACL is not exceeded.

Recreational ACT

- Estimates of recreational catches are variable
- Use PSE to ensure as catch estimates fluctuate up and down they do not exceed the recreational ACL
- Recreational ACT = 6.18 million pounds whole weight

ACL or ACT compared to Landings

- Commercial ACL = 3.88 MP
- Never exceeded based on data in Table 2.13.4.1
- Recreational ACT = 6.18 MP
- Only exceeded in 1992/93 since 1986/87 (Table 2.12.4.1)
- No further commercial or recreational regulations needed at this time

Table 2.13.4.1. Summary of quota management and harvest for Atlantic Migratory Group King Mackerel.

					Annual Harvest Levels		
Fishing Year	ABC Range[1] (lbs)	TAC (lbs)	Recreational Allocation/Quota[2] (lbs. /numbers)	Commercial Quota	Com	Rec	Total[3]
1986/87	6.9-15.4	9.68		3.59 (PS=0.40)	2.84	5.98	8.82
1987/88	6.9-15.4	9.68	6.09	3.59 (PS=0.40)	3.453	3.905	7.358
1988/89	5.5-10.7	7	4.4	2.6 (PS=0.40)	3.091	4.881	7.972
1989/90	6.9-15.4	9	5.66/666,000	3.34	2.635	3.4	6.035
1990/91	6.5-15.7	8.3	5.22/601,000	3.08	2.676	3.718	6.394
1991/92	9.6-15.5	10.5	6.60/735,000	3.9	2.516	5.822	8.338
1992/93	8.6-12.0	10.5	6.60/834,000	3.9	2.227	6.251	8.478
1993/94	9.9-14.6	10.5	6.60/854,000	3.9	2.018	4.438	6.456
1994/95	7.6-10.3	10	6.29/709,000	3.71	2.197	3.728	5.925
1995/96	7.3-15.5	7.3	4.60/454,000	2.7	1.87	4.153	6.023
1996/97	4.1-6.8	6.8	4.28/438,525	2.52	2.702	3.99	6.692
1997/98	4.1-6.8	6.8	4.28/438,525	2.52	3.002	5.158	8.16
1998/99	8.4-11.9	8.4	5.28/504,780	3.12	2.675	4.268	6.943
1999/00	8.9-13.3	10	6.30/601,338	3.71	2.225	3.424	5.649
2000/01	8.9-13.3	10	6.30/601,338	3.71	2.15	5.474	7.624
2001/02	8.9-13.3	10	6.30/601,338	3.71	1.935	4.404	6.339
2002/03	8.9-13.3	10	6.30/601,338	3.71	1.689	2.761	4.45
2003/04	8.9-13.3	10	6.30/601,338	3.71	1.861	4.192	6.053
2004/05	8.9-13.3	10	6.30/601,338	3.71	2.778	4.613	7.391
2005/06	8.9-13.3	10	6.30/601,338	3.71	2.251	3.485	5.736
2006/07	8.9-13.3	10	6.30/601,338	3.71	2.994	4.054	7.048
2007/08	8.9-13.3	10	6.30/601,338	3.71	2.667	6.08	8.747
2008/09	8.9-13.3	10	6.30/601,338	3.71	3.108	3.487	6.595
2009/10	8.9-13.3	10	6.30/601,338	3.71	3.559	3.885	7.444

Impacts from Action 13.5 Annual Catch Target (ACT) for Atlantic Migratory Group King Mackerel

Biological/Ecological & Physical

Setting an ACT provides more biological protection by accounting for management uncertainty and provides greater assurance that overfishing will be prevented.

Commercial

Alternative 1 would not set an ACT. **Alternatives 2 and 3** would set the ACT below the ACL with **Alternative 3** providing more assurance overfishing would not occur.

Recreational

Alternative 1 would not set an ACT. **Alternatives 2 and 3** would set the ACT below the ACL with **Alternative 3** providing more assurance overfishing would not occur. **Alternative 4** takes into account the variability of recreational catches while preventing overfishing.

Economic

Commercial

In this action, **Preferred Alternative 1** provides the greatest short-term economic benefits while **Alternative 3**, being the most conservative biologically, offer the smallest short-term economic benefits. Discussion of long-term economic benefits depends on the risk of the ACT being exceeded. If the risks are high, then **Alternative 3** would offer the highest long-term economic benefits and **Preferred Alternative 1**, the smallest.

Recreational

In this action, **Preferred Alternative 4** provides the greatest short-term economic benefits while **Alternative 3**, being the most conservative biologically, offer the smallest short-term economic benefits to the recreational fishery while **Preferred Alternative 4** would be close to the five year average. **Alternative 2** would be below the average for recreational landings. Discussion of long-term economic benefits depends on the risk of the ACT being exceeded. If the risks are high, then **Alternative 3** would offer the highest long-term economic benefits and **Preferred Alternative 4**, the smallest.

Social

For the commercial sector action, **Preferred Alternative 1** does not establish an ACT and commercial harvest will continue until the ACL is reached, which allows more fishing opportunities and economic benefits to the commercial sector. **Alternative 2** and **Alternative 3** establish the commercial ACT at 90% and 80% of the ACL, respectively, which will cause short-term social impacts as the harvest approaches these levels in a shorter period, and may result in early closing. For the recreational sector**, Alternative 1** does not establish an ACT and would also have few if any negative social effects. **Alternative 2** and **Alternative 3** would impose reductions lower than the ACL, which would cause the level to be reached in a shorter period and could limit recreational opportunities and social benefits if the recreational sector is closed early. **Preferred Alternative 4** would establish a recreational ACT close to the five-year average, which may affect future recreational opportunities if the sector continues to grow.

Administrative

Specifying an ACT or sector ACTs alone would not increase the administrative burden over the status-quo. However, the monitoring and documentation needed to track how much of the ACT has been harvested throughout a particular fishing season can potentially result in a need for additional cost and personnel resources if a monitoring mechanism is not already in place. Other administrative burdens that may result from all of the alternatives considered would take the form of development and dissemination of outreach and education materials for fishery participants.

14. Specify Accountability Measures (AMs) for Atlantic Migratory Group King Mackerel

The Councils may specify multiple preferreds from among the following:

Action 14 (Accountability Measures) Alternatives
Alternative 1 (No Action). The commercial AM for this stock is to prohibit harvest, possession, and retention when the quota is met. All purchase and sale is prohibited when the quota is met. Do not implement ACLs or AMs for the recreational sector.
Preferred Alternative 2. The commercial AM for this stock is to prohibit harvest, possession, and retention when the quota is met or projected to be met. All purchase and sale is prohibited when the quota is met or projected to be met. Implement AMs for the recreational sector for this stock. If the recreational sector ACL is exceeded, the Regional Administrator shall publish a notice to reduce the length of the following fishing year by the amount necessary to ensure landings do not exceed the recreational sector ACL for the following fishing year. Compare recreational ACL with recreational landings over a range of years. For 2011/12, use only 2011/12 landings. For 2012/13, use the average landings of 2011/12 and 2012/13. For 2013/14 and beyond, use the most recent three-year (fishing years) running average.
Sub-Alternative a. Reduce the length of the following fishing year by the amount necessary to ensure landings do not exceed the recreational sector ACL for the following fishing year.
Preferred Sub-Alternative b. Reduce the bag limit to ensure landings do not exceed the recreational sector ACL for the following fishing year.
Alternative 3. Commercial payback of any overage.
Preferred Sub-Alternative 3a. Payback regardless of stock status.
Sub-Alternative 3b. Payback only if overfished.
Alternative 4. Recreational payback of any overage from one year to the next.
Preferred Sub-Alternative 4a. Payback regardless of stock status.
Sub-Alternative 4b. Payback only if overfished.

Accountability Measures (AMs)

- Commercial AM = track landings; prohibit harvest & possession when met or projected to be met
- Commercial payback of overage regardless of stock status
- Recreational AM = if landings > Rec. ACL, reduce next season or reduce bag limit
- Compare fishing year landings to Rec. ACL: 1 year, average of 2, then 3-year running average

As part of the performance standard, if the landings exceed the ACT repeatedly, a review of the ACL, ACT, and AM would be triggered. Furthermore, if the catch exceeds the ACL more than once in the last four consecutive years, the entire system of ACLs and AMs would be re-evaluated as required by the National Standard 1 guidelines.

Impacts from Action 14 Specify Accountability Measures (AMs) for Atlantic Migratory Group King Mackerel

Biological/Ecological & Physical

Alternative 1 is not considered a viable option since it would specify no AMs for the recreational sector and therefore, would not limit harvest to the ACL; there is no commercial or recreational correction for an ACL overage. **Alternative 1** would provide no biological benefit to the species. **Alternative 2** would attempt to limit harvest to levels at or below the ACL or ACT by reducing and/or closing harvest once a particular landings threshold is met. **Alternative 3** would provide for a commercial payback of any overage with **Sub-Alternative 3a** providing more biological benefits. **Alternative 4** would provide for a recreational payback of any overage with **Sub-Alternative 4a** providing more biological benefits.

Economic

Alternatives 3 and 4 both have positive long-term economic benefits and negative short-term economic benefits due to instability of landings, making maintaining customers more difficult. **Sub-Alternatives 3b and 4b** would likely result in higher short-term economic benefits than **Preferred Sub-Alternatives 3a and 4a**. **Alternative 2** would result in positive long-term economic benefits and negative short-term economic benefits for commercial fisheries. Shortening the length of the recreational fishing season (**Sub-Alternative 2a**) would likely have negative short-term economic effects compared to (**Preferred Sub-Alternative 2b**) due to the importance of particular times of the year for recreational fishing and the need to maintain customers for charter and for-hire vessels.

Social

Alternative 1 would not change the current regime, which has no AMs for the recreational fishery. With **Alternative 2** new AMs would be imposed on the recreational sector through a reduction in the fishing season or bag limit the next year and present regulations for the commercial sector remain. By reducing the bag limit in **Preferred Sub-Alternative 2b** to prevent the recreational fishery from exceeding the sector ACL, this action will limit some recreational opportunities. However, it is less restrictive than reducing the length of the subsequent fishing year (**Sub-Alternative 2a)**, which would impact recreational fishing opportunities. For the commercial sector AM, the mandatory payback in **Preferred Sub-Alternative 3a** does not allow as much flexibility as requiring payback only for overfished (**Sub-Alternative 3b**), and a reduction in the ACL for a subsequent year could have significant negative social impacts if the overage is substantial. **Alternative 4** requires the same mandatory payback AM for the recreational sector and **Preferred Sub-Alternative 4a** would have similar effects on the recreational fishing community as mentioned for **Sub-Alternative 3a**, depending on the overage. Because recreational landings can be difficult to track, overages may be common and paybacks substantial, resulting in negative impacts on the recreational sector.

Administrative

Alternative 1 (No Action) would not produce short-term administrative impacts. However, this alternative would not comply with Reauthorized Magnuson-Stevens Act requirements and therefore, may trigger some type of legal action. If this scenario were to occur, the burden on the administrative environment could be significant in the future. **Alternative 2** would comply with the Magnuson Stevens Act but would result in an increased administrative burden associated with monitoring and tracking landings on a continuing basis. **Alternatives 3-4,** and associated **Sub-Alternatives**, would result in a minimal increase in administrative burden associated with calculating payback of overages for the commercial or recreational sectors. These alternatives would require outreach and education related to how the process would operate.

15. **Management Measures** for Atlantic Migratory Group King Mackerel

Action 15 Management Measures
Preferred: The Councils have concluded no changes to existing management measures are necessary because the ACLs do not appear likely to be exceeded.



Management Measures or Regulations

- No change necessary; major regulations are:
- Minimum size limit = 27" FL (recreational & commercial)
- Recreational bag limit = 3 per person off GA thru NY and 2 per person off FL
- Commercial quota (3.71 million pounds) and trip limits
- Fishing Year = March 1 – end of February

16. Specify MSY, MSST, MFMT/OFL, ABC, OY, ACL & ACT for Atlantic Migratory Group Spanish Mackerel

Atlantic migratory group Spanish mackerel were last assessed in SEDAR 17 (2008) with data through 2007. The fishing mortality parameters were accepted by the SEDAR Review Panel and the Councils Scientific and Statistical Committee (SSC); however, the biomass parameters were not accepted. SEDAR 33, which begins in 2012 and is scheduled to be completed in 2013, will assess the three species in the CMP FMP including Atlantic migratory group Spanish mackerel with data through 2011.

Action 16.1 MSY, MSST & MFMT for Atlantic Migratory Group Spanish Mackerel

The Council has determined that the value for MSY is the value from the most recent stock assessment. Currently MSY = 10.4 million pounds. Based on the SEDAR 17 assessment, MSY = 11.461 million pounds. The SSC has recommended this value not be used and so the Council is not proposing to change the existing value. This will be reexamined when the next SEDAR assessment is completed.

The Council has determined that the value for MSST is the value from the most recent stock assessment based on MSST = [(1-M) or 0.5 whichever is greater]*B_{MSY}. Currently MSST = 0.85(B_{MSY}) with no poundage estimated. Based on the SEDAR 17 assessment, MSST = 8,085 metric tons. The SSC has recommended this value not be used and so the Council is not proposing to change the existing value. This will be reexamined when the next SEDAR assessment is completed.

The Council has determined that the value for MFMT is the value of F_{MSY} or proxy from the most recent stock assessment. Currently MFMT = F_{MSY} = $F_{30\%SPR}$ with no poundage estimated. Based on the SEDAR 17 assessment, MFMT = F_{MSY} = 0.371. The SSC has recommended this value not be used and so the Council is not proposing to change the existing value. This will be reexamined when the next SEDAR assessment is completed.

There are no alternatives under consideration because these values should be specified from the latest SEDAR stock assessment; however, in this case they are not being updated because the biomass parameters were not accepted.

Action 16.2 Overfishing Level (OFL) for Atlantic Migratory Group Spanish Mackerel

The Scientific and Statistical Committee (SSC) provided the following OFL recommendation at their April 2010 meeting: Since no estimate of MSY is available for Spanish mackerel, the SSC decided to develop ABC recommendations based on landings data. Based on the SEDAR 17 review panel recommendation that overfishing was not occurring, the SSC decided to bypass the OFL estimate and recommend ABC as the median of landings over the last 10 years.

During their March 3, 2011 meeting the SSC provided the following recommendation: OFL is unknown.

The Council was advised by NOAA GC at the March 7-11, 2011 meeting that if the SSC did not provide a recommended OFL, then the Council would need to specify OFL. The Council is recommending an interim OFL = mean of 10 years landings + (2*Standard Deviation) (OFL=6.14 MP) based on the Gulf Council's ABC Control Rule. The SAFMC's SSC is meeting in April, and the Council has requested they review this interim OFL.

There are no alternatives under consideration because the overfishing level has been provided by the SSC.

Action 16.3 ABC Control Rule and ABC for Atlantic Migratory Group Spanish Mackerel

Alternative 1. No Action. Do not establish an ABC Control Rule for Atlantic migratory group Spanish mackerel.

Preferred Alternative 2. Adopt the SAFMC SSC recommended ABC control rule and establish ABC as 5.29 million pounds (MP).

Maximum Sustainable Yield (MSY)

Largest long-term average catch or yield that can be taken from a stock or stock complex under prevailing ecological and environmental conditions.

- The Councils must set MSY.
- MSY for Atlantic Migratory Group Spanish Mackerel = 10.4 million pounds whole weight

Overfishing

- None now
- Overfishing if landings are greater than 6.14 million pounds whole weight

ABC

- Adopt SAFMC SSC's Control Rule
- ABC = 5.29million pounds whole weight

Impacts from Action 16.1-16.3 (Specify MSY, MSST, MFMT/OFL, ABC for Atlantic Migratory Group Spanish Mackerel**)**

The administrative impacts of establishing a control rule are minimal and impacts would not differ much between the proposed alternatives.

Biological/Ecological & Physical

While there are no direct biological effects from identification of an ABC, it does set the upper limit on the level of landings that will be allowed for fishermen and prevents overfishing. **Alternative 1** (No Action) would not meet the new Magnuson-Stevens Act requirements. **Alternative 2** would adopt the SAFMC SSC recommended ABC control rule and would be expected to provide the greatest biological benefits over the long term by accounting for assessment uncertainty while preventing overfishing. **Alternative 2** provides more biological protection as compared to **Alternative 1**.

Economic

In general, the higher the ABC, the greater the long-term biological benefits and therefore, the greater the long-term economic benefits if there is little risk of overfishing. If the risk of overfishing is significant, a buffer between the OFL and the ABC would result in the greatest long-term economic benefits but smaller short-term economic benefits. **Preferred Alternative 2** likely provides short-term economic benefits to the effect of 5.29 million pounds annually.

Social

Establishment of the biological parameters for harvest thresholds will have few direct social effects. Impacts on the social environment are more indirect, resulting from the implementation of the ABC and any subsequent reduction when setting ACLs and ACTs. Certainly, the more risk averse a control rule or threshold is, the more chances of negative social effects accruing in the short term if harvest is reduced. **Preferred Alternative 2** is based on landings and is not a significant reduction from recent landings trends; however, it will allow limited expansion for the recreational and commercial sectors.

Administrative

The establishment of an ABC Control Rule is a procedural exercise. The rule is developed by the Council's SSC for consideration by the Council. Although the control rule can have implications on management actions, no specific management actions are required through the specification of the control rule.

16.4 Specify OY & ACL for Atlantic Migratory Group Spanish Mackerel

Action 16.4 (Annual Catch Limit or ACL) Alternatives
Alternative 1. No action. Currently TAC or ACL =7.04 million pounds based on an ABC of 5.7 – 9.0 million pounds.
Preferred Alternative 2. ACL = OY = ABC = 5.29 million pounds which is the ABC recommended by the SSC.
Alternative 3. ACL = OY = X% of ABC = _____ million pounds. **Sub-Alternative 3a.** ACL = 75%ABC = 3.97 million pounds. **Sub-Alternative 3b.** ACL = 85%ABC = 4.50 million pounds. **Sub-Alternative 3c.** ACL = 95%ABC = 5.03 million pounds. **Sub-Alternative 3d.** ACL = 80%ABC = 4.23 million pounds. **Sub-Alternative 3e.** ACL = 90%ABC = 4.76 million pounds.

Impacts from Action 16.4 (Annual Catch Limit)

Biological/Ecological & Physical

Alternative 1 (No Action). Setting an ACL potentially will have an impact on the biological environment if harvest changes from current levels; however, this is not expected to be the case. **Alternative 2** is based on the SSC recommendations and would prevent overfishing. **Alternative 3** would provide more biological protection by setting the ACL below the ABC. Setting an ACL or ACT could affect the physical environment if effort changes from current levels. If harvest is restricted under an ACL, fishing effort could be reduced through accountability measures such as a shortened season, and negative impacts might be decreased.

Economic

In general, the higher the ACL, the higher the economic benefits as long as there is no significant overfishing risk. If there is a risk of overfishing, a buffer between the ABC and the ACL could provide positive long-term economic benefits but also negative short-term economic benefits. **Sub-Alternative 3a** offers the most conservative ACL, the least short-term economic benefits, and the greatest long-term economic benefits. **Sub-Alternative 3d** offers the next largest long-term economic benefit followed by **Sub-Alternatives 3b, 3e, and 3c**. **Preferred Alternative 2** offers the next largest long-term economic benefits. **Alternative 1** would likely result in the highest short-term economic benefits but the smallest long-term economic benefits.

Social

In general, more restrictive ACLs will increase the risk of short-term negative impacts on commercial and recreational fishermen and communities. For the commercial and for-hire sectors, a more restrictive ACL could cause reduced effort and job loss if an operation cannot stay in business through low ACLs. However, successful management through ACLs will result in long-term overall benefits for the fishermen, communities, and general public as the resource is protected from overfishing. The establishment of the ACL for Atlantic Spanish Mackerel will limit harvest, potentially reducing fishing opportunities for commercial and recreational. The most restrictive ACL scenarios are in **Alternative 3** (percentage of the ABC) and the least restrictive is **Alternative 3e** (90% of ABC). **Preferred Alternative 2** sets the ACL at ABC and is less restrictive than most other alternatives, which will most likely not result in negative short-term impacts expected from allowing only a percentage of the ABC to be harvested as in **Alternative 3.**

Administrative

The administrative impacts of specifying OY are minimal and would not differ much between the proposed alternatives. Specifying an ACL or sector ACLs alone would not increase the administrative burden over the status-quo. However, the monitoring and documentation needed to track the ACL can potentially result in a need for additional cost and personnel resources if a monitoring mechanism is not already in place. **Alternative 1,** would not meet the requirements of the Magnuson-Stevens Act for Atlantic migratory group king mackerel, and could be subject to litigation, which would result in a significant administrative burden on the agency.

16.5 Annual Catch Target (ACT) for Atlantic Migratory Group Spanish Mackerel

Action 16.5a (Commercial Sector ACT) Alternatives

Preferred Alternative 1. Do not specify commercial sector ACTs for Atlantic migratory group Spanish mackerel.

Alternative 2. The commercial sector ACT equals 90% of the commercial sector ACL.

Alternative 3. The commercial sector ACT equals 80% of the commercial sector ACL.

Commercial Sector ACT	
ACT Alt. 2; ACT=90%(ACL)	**ACT Alt. 3; ACT=80%(ACL)**
2.62	2.33

Action 16.5b (Recreational Sector ACT) Alternatives

Alternative 1 (No Action). Do not specify recreational sector ACTs for Atlantic migratory group Spanish mackerel.

Alternative 2. The recreational sector ACT equals 85% of the recreational sector ACL.

Alternative 3. The recreational sector ACT equals 75% of the recreational sector ACL.

Preferred Alternative 4. The recreational sector ACT equals sector ACL[(1-PSE) or 0.5, whichever is greater].

Proportional Standard Errors (PSEs) from MRFSS/MRIP

Council used 3-year average because this better represents recent catches.

2003	2004	2005	2006	2007	2008	2009	3 year average (2007-09)	5 year average (2005-09)
7.4	8.7	8.2	8.9	8.1	7.7	8.1	8.0	8.2

Recreational Sector ACT		
ACT Alt. 2; ACT=85%(ACL)	**ACT Alt. 3; ACT=75%(ACL)**	**Preferred ACT Alt. 4; ACT equals sector ACL[(1-PSE) or 0.5, whichever is greater]**
2.02	1.79	2.19

Preferred Alternatives

Annual Catch Target (ACT)

- Optional to account for implementation uncertainty

Commercial ACT

- Do not specify
- Commercial quota monitoring expected to ensure commercial ACL is not exceeded.

Recreational ACT

- Estimates of recreational catches are variable
- Use PSE to ensure as catch estimates fluctuate up and down they do not exceed the recreational ACL
- Recreational ACT = 2.19 million pounds whole weight

ACL or ACT compared to Landings

- Commercial ACL = 2.91 MP
- Not exceeded in last 3 years based on data in Table 2.16.4.1
- Exceeded every year from 1997/97 thru 2006/07 except 1999/00
- Recreational ACT = 2.19 MP
- Not exceeded since 2000/01 (Table 2.16.4.1)
- Commercial – no new regulations needed
- Recreational – evaluate new regulations to keep landings < ACT

Table 2.16.4.1. Summary of quota management and harvest for Atlantic Migratory Group Spanish Mackerel.

						Annual Harvest Levels		
Fishing Year	ABC Range[1] (lbs)	TAC (M lbs)	Recreational Allocation/Quota[2] (lbs. /numbers)	Rec. Bag Limit	Commercial Quota	Com	Rec	Total[3]
1987/88	1.7 - 3.1	3.1	0.74	4 in FL, 10 GA-NC	2.36	3.475	1.474	4.949
1988/89	1.3 - 5.5	4	0.96	4 in FL, 10 GA-NC	3.04	3.521	2.74	6.261
1989/90	4.1 - 7.4	6	2.76 / 1,725,000	4 in FL, 10 GA-NC	3.24	3.941	1.569	5.51
1990/91	4.2 - 6.6	5	1.86 / 1,216,000	4 in FL, 10 GA-NC	3.14	3.535	2.075	5.61
1991/92	5.5 - 13.5	7	3.50 / 2,778,000	5 in FL, 10 GA-NC	3.5	4.707	2.287	6.994
1992/93	4.9 - 7.9	7	3.50 / 2,536,000	10 FL - NY	3.5	3.727	1.995	5.722
1993/94	7.3 - 13.0	9	4.50 / 3,214,000	10 FL - NY	4.5	4.811	1.493	6.304
1994/95	4.1 - 9.2	9.2	4.60 / 3,262,000	10 FL - NY	4.6	5.254	1.378	6.632
1995/96	4.9 - 14.7	9.4	4.70 / 3,113,000	10 FL - NY	4.7	1.834	1.089	2.923
1996/97	5.0 - 7.0	7	3.50 / 2,713,000	10 FL - NY	3.5	3.098	0.849	3.947
1997/98	5.8 - 9.4	8	4.00 / 2,564,000	10 FL - NY	4	3.057	1.66	4.717
1998/99	5.4 - 8.2	8	4.00 / 2,564,000	10 FL - NY	4	3.272	0.817	4.089
1999/00	5.7 - 9.0	7.04	3.17 / 2,032,000	10 FL - NY	3.52	2.608	1.505	4.113
2000/01	5.7 - 9.0	7.04	3.17 / 2,032,000	15 FL - NY	3.87	3.007	2.28	5.287
2001/02	5.7 - 9.0	7.04	3.17 / 2,032,000	15 FL - NY	3.87	3.329	2.034	5.363
2002/03	5.7 - 9.0	7.04	3.17 / 2,032,000	15 FL - NY	3.87	3.679	1.605	5.284
2003/04	5.7 - 9.0	7.04	3.17 / 2,032,000	15 FL - NY	3.87	4.091	1.846	5.937
2004/05	5.7 - 9.0	7.04	3.17 / 2,032,000	15 FL - NY	3.87	3.761	1.365	5.126
2005/06	5.7 - 9.0	7.04	3.17 / 2,032,000	15 FL - NY	3.87	4.041	1.649	5.69
2006/07	5.7 - 9.0	7.04	3.17 / 2,032,000	15 FL - NY	3.87	4.038	1.653	5.691
2007/08	5.7 - 9.0	7.04	3.17 / 2,032,000	15 FL - NY	3.87	3.5	1.711	5.211
2008/09	5.7 - 9.0	7.04	3.17 / 2,032,000	15 FL - NY	3.87	2.508	2.047	4.555
2009/10	5.7 - 9.0	7.04	3.17 / 2,032,000	15 FL - NY	3.87	2.633	2.108	4.741

Impacts from Action 16.5 Annual Catch Target (ACT) for Atlantic Migratory Group Spanish Mackerel

Biological/Ecological & Physical

Setting an ACT provides more biological protection by accounting for management uncertainty and provides greater assurance that overfishing will be prevented.

Commercial

Alternative 1 would not set an ACT. **Alternatives 2 and 3** would set the ACT below the ACL with **Alternative 3** providing more assurance overfishing would not occur.

Recreational

Alternative 1 would not set an ACT. **Alternatives 2 and 3** would set the ACT below the ACL with **Alternative 3** providing more assurance overfishing would not occur. **Alternative 4** takes into account the variability of recreational catches while preventing overfishing.

Economic

Commercial Sector ACT

In general, if there is no concern regarding exceeding the ACL, **Preferred Alternative 1** offers the greatest short-term and long-term economic benefits. If there is concern of an overage, **Alternatives 2 and 3** can provide greater long-term economic benefits than **Preferred Alternative 1**.

Recreational Sector ACT

In general, if there is no concern regarding exceeding the ACL, **Alternative 1** offers the greatest short-term and long-term economic benefits followed by **Preferred Alternative 4**. If there is concern of an overage, **Alternatives 2 and 3** can provide greater long-term economic benefits than **Alternative 1** and **Preferred Alternative 4**.

Social

For the commercial sector, **Preferred Alternative 1** does not establish an ACT and commercial harvest will continue until the ACL is reached, which allows more fishing opportunities and short-term economic benefits to the commercial sector. **Alternative 2** and **Alternative 3** establish the commercial ACT at 90% and 80% of the ACL, respectively, which will cause short-term social impacts as the harvest approaches these levels in a shorter period, and may result in early closing.

For the recreational sector**, Alternative 1** does not establish an ACT and would also have few if any negative social effects. **Alternative 2** and **Alternative 3** would impose reductions from the ACL, which would cause the level to be reached in a shorter period and could limit recreational opportunities and economic benefits if the recreational sector is closed early. **Preferred Alternative 4** would establish a recreational ACT close to the five year average, which may affect future recreational opportunities if the sector continues to grow.

Administrative

Specifying an ACT or sector ACTs alone would not increase the administrative burden over the status-quo. However, the monitoring and documentation needed to track how much of the ACT has been harvested throughout a particular fishing season can potentially result in a need for additional cost and personnel resources if a monitoring mechanism is not already in place. Other administrative burdens that may result from all of the alternatives considered would take the form of development and dissemination of outreach and education materials for fishery participants.

17. Specify Accountability Measures (AMs) for Atlantic Migratory Group Spanish Mackerel

The Councils may specify multiple preferreds from among the following:

Action 17 (Accountability Measures) Alternatives
Alternative 1 (No Action). The commercial AM for this stock is to prohibit harvest, possession, and retention when the quota is met. All purchase and sale is prohibited when the quota is met. Do not implement ACLs or AMs for the recreational sector.
Preferred Alternative 2. The commercial AM for this stock is to prohibit harvest, possession, and retention when the quota is met or projected to be met. All purchase and sale is prohibited when the quota is met or projected to be met. Implement AMs for the recreational sector for this stock. If the recreational sector ACL is exceeded, the Regional Administrator shall publish a notice to reduce the length of the following fishing year by the amount necessary to ensure landings do not exceed the recreational sector ACL for the following fishing year. Compare recreational ACL with recreational landings over a range of years. For 2011/12, use only 2011/12 landings. For 2012/13, use the average landings of 2011/12 and 2012/13. For 2013/14 and beyond, use the most recent three-year (fishing years) running average.
Sub-Alternative a. Reduce the length of the following fishing year by the amount necessary to ensure landings do not exceed the recreational sector ACL for the following fishing year.
Preferred Sub-Alternative b. Reduce the bag limit to ensure landings do not exceed the recreational sector ACL for the following fishing year.
Alternative 3. Commercial payback of any overage.
Preferred Sub-Alternative 3a. Payback regardless of stock status.
Sub-Alternative 3b. Payback only if overfished.
Alternative 4. Recreational payback of any overage from one year to the next.
Preferred Sub-Alternative 4a. Payback regardless of stock status.
Sub-Alternative 4b. Payback only if overfished.

Accountability Measures (AMs)

- Commercial AM = track landings; prohibit harvest & possession when met or projected to be met
- Commercial payback of overage regardless of stock status
- Recreational AM = if landings > Rec. ACL, reduce next season or reduce bag limit
- Compare fishing year landings to Rec. ACL: 1 year, average of 2, then 3-year running average

As part of the performance standard, if the landings exceed the ACT repeatedly, a review of the ACL, ACT, and AM would be triggered. Furthermore, if the catch exceeds the ACL more than once in the last four consecutive years, the entire system of ACLs and AMs would be re-evaluated as required by the National Standard 1 guidelines.

Impacts from Action 17 Specify Accountability Measures (AMs) for Atlantic Migratory Group King Mackerel

Biological/Ecological & Physical

Alternative 1 is not considered a viable option since it would specify no AMs for the recreational sector and therefore, would not limit harvest to the ACL; there is no commercial or recreational correction for an ACL overage. **Alternative 1** would provide no biological benefit to the species. **Alternative 2** would attempt to limit harvest to levels at or below the ACL or ACT by reducing and/or closing harvest once a particular landings threshold is met. **Alternative 3** would provide for a commercial payback of any overage with **Sub-Alternative 3a** providing more biological benefits. **Alternative 4** would provide for a recreational payback of any overage with **Sub-Alternative 4a** providing more biological benefits.

Economic

Preferred Alternative 2 would result in positive long-term economic benefits and negative short-term economic benefits for commercial fisheries. Shortening the length of the recreational fishing season (**Sub-Alternative 2a**) would likely have negative short-term economic effects compared to (**Preferred Sub-Alternative 2b**) due to the importance of particular times of the year for recreational fishing and the need to maintain customers for charter and for-hire vessels. **Alternatives 3 and 4** both have positive long-term economic benefits and negative short-term economic benefits due to instability of landings, making maintaining customers more difficult. **Sub-Alternatives 3b and 4b** would likely result in higher short-term economic benefits than **Preferred Sub-Alternatives 3a and 4a**.

Social

Alternative 1 would not change the current regime, which has no AMs for the recreational fishery. With **Alternative 2** new AMs would be imposed on the recreational sector through a reduction in the fishing season or bag limit the next year and present regulations for the commercial sector remain. By reducing the bag limit in **Preferred Sub-Alternative 2b** to prevent the recreational fishery from exceeding the sector ACL, this action will limit some recreational opportunities. However, it is less restrictive than reducing the length of the subsequent fishing year (**Sub-Alternative 2a)**, which would impact recreational fishing opportunities. For the commercial sector AM, the mandatory payback in **Preferred Sub-Alternative 3a** does not allow as much flexibility as requiring payback only for overfished (**Sub-Alternative 3b**), and a reduction in the ACL for a subsequent year could have significant negative social impacts if the overage is substantial. **Alternative 4** requires the same mandatory payback AM for the recreational sector and **Preferred Sub-Alternative 4a** would have similar effects on the recreational fishing community as mentioned for **Sub-Alternative 3a**, depending on the overage. Because recreational landings can be difficult to track, overages may be common and paybacks substantial, resulting in negative impacts on the recreational sector.

Administrative

Alternative 1 (No Action) would not produce short-term administrative impacts. However, this alternative would not comply with Reauthorized Magnuson-Stevens Act requirements and therefore, may trigger some type of legal action. If this scenario were to occur, the burden on the administrative environment could be significant in the future. **Alternative 2** would comply with the Magnuson Stevens Act but would result in an increased administrative burden associated with monitoring and tracking landings on a continuing basis. **Alternatives 3-4,** and associated **Sub-Alternatives**, would result in a minimal increase in administrative burden associated with calculating payback of overages for the commercial or recreational sectors. These alternatives would require outreach and education related to how the process would operate.

18. **Management Measures** for Atlantic Migratory Group Spanish Mackerel

Action 18 Management Measures

Alternative 1 (No Action). Individual recreational bag limit is 15 NY-FL. Bag limit sales are allowed consistent with state regulations. The commercial possession limits are as follows:

1. April 1 - November 30 -- 3,500 pounds per vessel per day.
2. December 1 until 75% of the adjusted allocation is taken:
   Monday - Friday Unlimited
   Other days 1,500 pounds

(Vessel fishing days begin at 6:00 a.m. and extend until 6:00 a.m. the following day, and vessels must be unloaded by 6:00 p.m. of that following day.)

3. After 75% of the adjusted allocation is taken 1,500 pounds per vessel per day for all days.
4. When 100% of the adjusted allocation is reached: 500 pounds per vessel per day to the end of the fishing year (March 31). Adjusted allocation compensates for estimated catches of 500 pounds per vessel per day to the end of the season.

Alternative 2. Set a maximum bag limit of 60 Spanish mackerel per boat for charter boats.

Alternative 3. Set a maximum bag limit of 60 Spanish mackerel per boat for private recreational boats.

Preferred Alternative 4. Reduce the individual bag limit from 15 to 10 per person.

Management Measures or Regulations

- No change necessary in commercial fishery; track quota and close when met or projected to be met
- Recreational bag limit : Proposed reduction from 15 to 10 per person NY thru FL
- Fishing Year = March 1 – end of February (no change)

Table 4.18.1. Atlantic migratory group Spanish mackerel percentage reductions by reducing the bag limit from 15 to 10.
Source: ACCSP.

Year	Florida	Georgia	South Carolina	North Carolina	Virginia
2009	0%	0%	13%	17%	0%
2008	14%	0%	0%	17%	36%
2007	20%	0%	0%	19%	0%
2006	6%	0%	0%	16%	0%
2005	27%	53%	0%	15%	0%
Range	0-27%	0-53%	0-13%	15-19%	0-36%
Average	13%	11%	3%	17%	7%

Impacts from Action 18 Management Measures for Atlantic Migratory Group Spanish Mackerel

Biological/Ecological & Physical

Comparing the recreational and commercial ACL with recent landings does not indicate that a reduction in current harvest levels is necessary. The commercial ACL will be tracked and the fishery closed when the ACL is met or projected to be met. Effort in the recreational fishery is not limited by management and the bag limit of 15 Spanish mackerel per person could allow catches to increase and potentially exceed the recreational ACL. **Preferred Alternative 4** reduces the bag limit from 15 to 10 per person and is expected to reduce landings by 13% in Florida, 11% in Georgia, 3% in South Carolina, 17% in North Carolina, and 7% in Virginia based on average catches from 2005-09 (Table 4.18.1). **Alternatives 2 and 3** would set maximum boat limits based on the new bag limit of 10 per person and would be expected to have similar reductions for charter boats and private recreational boats as projected for **Preferred Alternative 4**. Any management measures that reduce effort could affect the physical environment.

Economic

Placing limits on the total number of fish that a recreational vessel is allowed to take will have varied negative economic effects depending on how many people the vessels typically take on a trip. **Alternatives 2 and 3** might not result in short-term economic losses as long as 4 or less people typically catch fish on these vessels. The distribution of the number of people fishing on charter and private vessels is not known at this time and therefore quantitative results cannot be estimated. **Preferred Alternative 4** reduces the bag limit from 15 to 10 fish per person. Maximum economic losses in consumer surplus are estimated based on how many trips are taken by individuals multiplied by the trip expenditures made per fish.

Social

Alternative 1 would make no changes to current management measures, which likely would not affect the commercial sector but may negatively impact the recreational sector by triggering an overage by allowing the current bag limit to stand. The 60-per-boat limit in **Alternative 2** and **Alternative 3** will only have negative impacts on for-hire and private boats if the number of people on board exceeds four. Specifically **Alternative 2** will decrease fishing opportunities and potentially the economic benefits for those employed by party boats and headboats, and their clients. The effects on the social environment from a lower bag limit in **Preferred Alternative 4** will result from reduced economic benefits and reduced fishing opportunities for Atlantic Spanish Mackerel, specifically for North Carolina, Florida, and Georgia. However, if the reduced bag limit helps to avoid a payback in the following year, this will provide more social benefits in the long term.

Administrative

Under the **Alternative 1** (no action) the administrative impacts would not increase. **Alternatives 2-4** would result in a moderate increase in the administrative burden due to rule-making, monitoring, enforcement, and outreach.

19. Specify MSY, MSST, MFMT/OFL, ABC, OY, ACL & ACT for Atlantic Migratory Group Cobia

Atlantic migratory group cobia have never been assessed by the NMFS Southeast Fisheries Science Center or through SEDAR. SEDAR 33, which begins in 2012 and is scheduled to be completed in 2013, will assess the three species in the CMP FMP including Atlantic migratory group cobia with data through 2011.

Action 19.1 MSY, MSST & MFMT for Atlantic Migratory Group Cobia

The Council has determined that the value for MSY is the value from the most recent stock assessment. Currently MSY is unknown.

The Council has determined that the value for MSST is the value from the most recent stock assessment based on MSST = [(1-M) or 0.5 whichever is greater]*B_{MSY}. Currently MSST is unknown.
The Council has determined that the value for MFMT is the value of F_{MSY} or proxy from the most recent stock assessment. Currently MFMT is unknown.

There are no alternatives under consideration because these values are all unknown. They will be updated once SEDAR 33 is completed in 2013.

Action 19.2 Overfishing Level (OFL) for Atlantic Migratory Group Cobia

The Scientific and Statistical Committee provided the following OFL at their April 2010 meeting: "Since no estimate of MSY is available for cobia the SSC decided to estimate OFL as the median of landings data for the period 1986-2008. Therefore, OFL = 857,714 pounds."

The Council used the SSC methodology (median of 10 years of landings) and updated landings data to calculate a new OFL = 1,302,740 pounds.
The SSC provided the following OFL at their March 3

The Council was advised by NOAA GC at the March 2011 meeting that if the SSC did not provide a recommended OFL, then the Council would need to specify OFL. The Council is recommending an interim OFL = mean of 10 years landings + (2*Standard Deviation) (OFL=1.68 MP) based on the Gulf Council's ABC Control Rule. The SAFMC's SSC is meeting in April and the Council has requested they review this interim OFL.
There are no alternatives under consideration because the overfishing level is being provided by the SSC.

Action 19.3 ABC Control Rule and ABC for Atlantic Migratory Group Cobia

Alternative 1. No Action. Do not establish an ABC Control Rule for Atlantic migratory group cobia.

Alternative 2. Adopt the SAFMC SSC recommended ABC control rule and establish ABC as xxxx pounds. Note: During their March 3, 2011 meeting, the SSC developed a new ABC = median of last 10 years and using the updated ACL data set, ABC = 1,026,079 pounds. Note: The landings database used by the SSC was different than that used by the Council as shown in Table 4.19.3.1. Based on the data in Table 4.19.3.1, the ABC = median 2000-2009 = 1,302,740 pounds whole weight.

Alternative 3. Adopt the SAFMC SSC recommended ABC control rule and establish an ABC Control Rule where ABC equals OFL (1,302,740 pounds). Note: This OFL was recommended by the SSC prior to their March 3, 2011 meeting when they determined that OFL was unknown and they specified ABC = median of 10 years of landings. With the data in Table 4.19.3.1.1, this value is 1,302,740 pounds whole weight.

Alternative 4. Adopt the SAFMC SSC recommended ABC control rule and establish an ABC Control Rule where ABC equals a percentage of OFL. Note: OFL = 1,302,740 pounds whole weight.

Sub-Alternative 4a. ABC=65%OFL=846,781 pounds.
GMFMC Preferred Sub-Alternative 4b. ABC=75%OFL=977,055 pounds.
Sub-Alternative 4c. ABC=85%OFL=1,107,329 pounds.

SAFMC Preferred Alternative 5. Adopt the Gulf Council's ABC Control Rule as an interim control rule and establish an ABC equal to the mean plus 1.5 times the standard deviation of the most recent10 years of landings data (ABC = 1,571,399 pounds whole weight). Note: The values are shown in Table 4.19.3.1.2. The Council requests that the SSC review this interim control rule at their April 2011 meeting.

Maximum Sustainable Yield (MSY)
Largest long-term average catch or yield that can be taken from a stock or stock complex under prevailing ecological and environmental conditions.

- The Councils must set MSY.
- MSY for Atlantic Migratory Group Cobia = unknown

Overfishing
- Unknown
- Overfishing if landings are greater than 1.68 million pounds whole weight

ABC
- Adopt Gulf Council's Control Rule as an Interim Control Rule
- ABC = 1.57 million pounds whole weight

Table 4.19.3.1.1. Recreational and commercial landing of Atlantic cobia by year and area for Action 3 (Cobia Management Boundary) Alternatives 1, 2, and 3.

	Commercial					Recreational			South Atlantic				
Year	South Atlantic only	Gulf only	S. Atlantic Monroe County	Gulf Monroe County	Total	South Atlantic only	Gulf only	Monroe County	South Atlantic Com.	% Com.	South Atlantic Rec.	% Rec.	South Atlantic Total
2000	91,269	126,604	23,076	3,286	26,362	1,017,028	880,413	27,070	114,345	10%	1,030,563	90%	1,144,908
2001	95,435	89,760	19,707	2,348	22,055	849,194	1,165,227	47,868	115,142	12%	873,128	88%	988,270
2002	88,767	103,113	16,836	2,109	18,945	771,362	851,683	14,908	105,603	12%	778,816	88%	884,419
2003	80,665	108,886	29,535	2,580	32,115	1,509,248	1,098,724	70,593	110,200	7%	1,544,545	93%	1,654,745
2004	89,200	97,460	14,363	3,733	18,096	1,184,435	1,270,392	46,270	103,563	8%	1,207,570	92%	1,311,133
2005	59,513	84,377	12,372	3,104	15,476	1,274,058	1,222,264	35,963	71,885	5%	1,292,040	95%	1,363,925
2006	81,013	76,714	11,644	4,842	16,486	1,150,144	1,043,001	103,093	92,657	7%	1,201,690	93%	1,294,347
2007	83,918	68,932	13,359	4,220	17,579	1,246,670	1,056,228	17,076	97,277	7%	1,255,208	93%	1,352,485
2008	82,764	65,220	14,393	2,430	16,823	1,220,307	981,149	6,479	97,157	7%	1,223,547	93%	1,320,704
2009	99,475	60,424	9,608	1,120	10,728	946,037	594,786	4,493	109,083	10%	948,284	90%	1,057,367

Action 3: Alternative 1 (above numbers) Alternative 2 (above numbers) Alternative 3 (above numbers)

Source: SEFSC ALS, MRFSS, HBS, and TPW databases.

Table 4.19.3.1.2. Values from applying the Gulf Council's ABC control rule to the 2000-2009 data in Table 4.19.3.1 using the Council boundary as the stock boundary (Alternative 3).

Value	Pounds Whole Weight
Mean	1,237,230
Median	1,302,740
Standard Deviation (SD)	222,779
Mean + 0.5 * SD	1,348,620
Mean + 1.0 * SD	1,460,010
Mean + 1.5 * SD	1,571,399
Mean + 2.0 * SD	1,682,789

Impacts from Action 19.1-19.3 (Specify MSY, MSST, MFMT/OFL, ABC for Atlantic Migratory Group Cobia**)**

Biological/Ecological & Physical

While there are no direct biological effects from identification of an ABC, it does set the upper limit on the level of landings that will be allowed for fishermen and prevents overfishing. **Alternative 1** (No Action) would not meet the new Magnuson-Stevens Act requirements. **Alternative 2** would adopt the SAFMC SSC recommended ABC control rule and would be expected to provide positive biological benefits over the long term by accounting for assessment uncertainty while preventing overfishing. **Alternative 3** provides the second highest level of landings of all the alternatives but carries more biological risk and does not account for management uncertainty which could lead to overfishing and negative biological effects. **Alternative 4 and Sub-Alternatives 4a-4c** provide more biological protection as compared to **Alternatives 2 and 3**. **Alternative 5** would adopt the Gulf Council's ABC control rule as an interim control rule until results are available from SEDAR 33 which begins in 2012 and would provide the greatest biological benefits over the long term if it sufficiently accounts for assessment uncertainty and prevents overfishing.

Economic

In general, the higher the ABC, the greater the biological benefits and therefore, the greater the long-term economic benefits if there is little risk of overfishing. If the risk of overfishing is significant, a buffer between the OFL and the ABC would result in the greatest long-term economic benefits but smaller short-term economic benefits. Therefore, **SAFMC Preferred Alternative 5** likely provides the greatest short-term economic benefits whereas **Sub-Alternative 4a** would likely provide the greatest long-term economic benefits but also the smallest short-term economic benefits followed by **GMFMC Preferred Sub-Alternative 4b, Alternative 2, Sub-Alternative 4c, and Alternative 3** in declining order.

Social

Establishment of the biological parameters for harvest thresholds will have few direct social effects. Impacts on the social environment are more indirect, resulting from the implementation of the ABC and any subsequent reduction when setting ACLs and ACTs. The more risk averse a control rule or threshold is, the more chances of negative social effects accruing in the short-term if harvest is reduced. The least restrictive ABC would result from **Preferred Alternative 5,** while **Alternative 4a** is the most restrictive, but all effects on the social environment will depend on subsequent decisions for the ACL and AMs following this action.

Administrative

The establishment of an ABC Control Rule is a procedural exercise. The rule is developed by the Council's SSC for consideration by the Council. Although the control rule can have implications on management actions, no specific management actions are required through the specification of the control rule. The administrative impacts of establishing a control rule are minimal and impacts would not differ much between the proposed alternatives.

19.4 **Allocation by Sector** for Atlantic Migratory Group Cobia

Action 19.4 (Allocation) Alternatives
Alternative 1. No action. Currently there are no allocations for cobia.
Alternative 2. Define allocations for Atlantic migratory group cobia based upon landings from the ALS, MRFSS, and headboat databases. The allocation would be based on landings from the years 2006-2008. The allocation would be 8% commercial and 92% recreational. The commercial and recreational allocation specified for 2011 would remain in effect beyond 2011 until modified.
Preferred Alternative 3. Define allocations for Atlantic migratory group cobia based upon landings from the ALS, MRFSS, and headboat databases. The allocation would be based on the following formula for each sector: Sector apportionment = (50% * average of long catch range (lbs) 2000-2008 + (50% * average of recent catch trend (lbs) 2006-2008). The allocation would be 8% commercial and 92% recreational. The commercial and recreational allocation specified for 2011 would remain in effect beyond 2011 until modified.

Impacts from Action 19.4 (Allocations)

Biological/Ecological & Physical

There are no physical, biological or ecological effects from allocating by sector. The ACL or ACT and AMs provide biological protection and prevent overfishing. Using the landings data shown in Table 4.18.2.1.1 for Alternative 3(management separated at the Council boundary), the allocation is 92% recreational and 8% commercial for both **Alternative 3** and **Preferred Alternative 4**. Prior to NMFS updating commercial and recreational catches the allocations were different between **Alternatives 2 and 3**; however, the updated landings results in the same allocation (92% recreational and 8% commercial).

Economic

Creating sector allocations for Atlantic cobia will have positive benefits to each sector depending on the percentage allocated to that sector. The recreational sector will benefit more given a larger share while the same applies to the commercial sector. Deviations from the current harvest levels will have effects, both positive and negative, while allocations close to current harvest levels will have smaller effects. In this case, **Alternative 2** and **Preferred Alternative 3** result in the same allocations and will have no differential economic effects. However, compared to **Alternative 1**, the commercial and recreational sectors may feel they have experienced losses given that under **Alternative 1**, each sector had the opportunity to harvest more than under **Alternative 2** and **Preferred Alternative 3**.

Social

Effects on the social environment resulting from sector allocation will likely depend on the equity of the allocation and the newly separated accountability. **Alternative 1** would not define separate allocations but does allow both sectors to harvest until the overall ACL is met, which may provide more fishing opportunities than **Alternative 2** or **Preferred Alterative 3** for one or both of the sectors. **Alternative 2** or **Preferred Alterative 3** result in the same allocation, and would have similar social effects. There would likely be few or no short-term changes for either sector, because the allocation is based on recent landings history. However, possible negative social impacts may result in the future by limiting expansion of one or both sectors, or from less-than-optimal use of the fishery due to unused quota by one sector that could not be accessed by the other sector.

Administrative

Alternative 1, no action, would not increase the administrative burden as it would not create allocations for cobia. Under any of the proposed action alternatives, administrative impacts will occur as allocations will need to be monitored and enforced to ensure that the sectors do not exceed their allocation and if so, appropriate overages are accounted for. The administrative impacts associated with the proposed alternatives are expected to be similar to the administrative impacts under **Alternative 1.** None of the action alternatives are expected to increase the administrative impacts more than the others.

19.5 Specify OY & ACL for Atlantic Migratory Group Cobia

The ACL is equivalent to TAC as used in the past.

Action 19.5 (Annual Catch Limit or ACL & OY) Alternatives

Alternative 1. No action. Currently there is no TAC or ACL for cobia.

Preferred Alternative 2. ACL = OY = ABC = 977,055 pounds based on the SSC recommendation. Note: During their March 3, 2011 meeting, the SSC developed a new ABC = median of last 10 years and using the updated ACL data set, ABC = 1,026,079 pounds. Using the SAFMC's Interim Control Rule, ABC = 1,571,399 pounds.

Alternative 3. ACL = X% of ABC = ???? thousand pounds.
- **Sub-Alternative 3a.** ACL = 65%ABC = 635,086 pounds = 1,021,409 pounds.
- **Sub-Alternative 3b.** ACL = 75%ABC = 732,791 pounds = 1,178,549 pounds.
- **Sub-Alternative 3c.** ACL = 85%ABC = 830,497 pounds = 1,335,689 pounds.
- **Sub-Alternative 3d.** ACL = 80%ABC = 781,644 pounds = 1,257,119 pounds.
- **Sub-Alternative 3e.** ACL = 90%ABC = 879,350 pounds = 1,414,259 pounds.

Note: The first set of ACL numbers in Alternative 3 above are calculated with ABC = 977,055 pounds whole weight which was the Council's previous preferred alternative. At the March 2011 meeting, the Council changed their preferred to using the ABC from their proposed Interim Control Rule with ABC = 1,571,399 pounds whole weight. The Council's new preferred ABC was used to calculate the second set of ACL numbers.

Impacts from Action 19.5 (Annual Catch Limit)

Biological/Ecological & Physical

Setting an ACL potentially will have an impact on the biological environment if harvest changes from current levels; however, this is not expected to be the case as most alternatives would maintain catches close to **Alternative 1** (No Action). **Preferred Alternative 2** is based on the SSC recommendations and would prevent overfishing. **Alternative 3** would provide more biological protection by setting the ACL below the ABC. ACL values based on the various values in **Preferred Alternative 2** and **Alternative 3** are shown in Table 4.19.5.1.1. Setting an ACL could affect the physical environment if harvest changes from current levels.

Table 4.19.5.1.1. ACL values (pounds whole weight).

	ACL	If ABC =	If ABC =	If ABC =
Alternative	Formula	977,055	1,026,079	1,571,399
		Then ACL =	Then ACL =	Then ACL =
Preferred Alternative 2	ACL=OY=ABC	977,055	1,026,079	1,571,399
Sub-Alternative 3a	ACL=65%ABC	635,086	666,951	1,021,409
Sub-Alternative 3b	ACL=75%ABC	732,791	769,559	1,178,549
Sub-Alternative 3c	ACL=85%ABC	830,497	872,167	1,335,689
Sub-Alternative 3d	ACL=80%ABC	781,644	820,863	1,257,119

Economic

Preferred Alternative 2 offers the highest ACL level and therefore the greatest short-term and long-term economic benefits as long as there is no significant risk of overfishing, If there is a significant risk of overfishing, **Sub-Alternatives** under **Alternative 3** would offer higher long-term economic benefits but smaller short-term economic benefits compared to **Preferred Alternative 2**.

Social

Establishment of the ACL for Atlantic Cobia will limit harvest, potentially reducing fishing opportunities for commercial and recreational. The most restrictive ACL scenarios are in **Alternative 3** (percentage of the ABC) and the least restrictive is **Alternative 3e** (90% of ABC). **Preferred Alternative 2** sets the ACL at ABC and is less restrictive than most other alternatives, which will most likely not result in negative short-term impacts expected from allowing only a percentage of the ABC to be harvested as in **Alternative 3.**

Administrative

Alternative 1, would not meet the requirements of the Magnuson-Stevens Act for Atlantic migratory group king mackerel, and could be subject to litigation, which would result in a significant administrative burden on the agency. The administrative impacts of specifying an ACL through **Alternatives 2- 3,** and the **Sub-Alternatives** associated with **Alternative 3** are minimal and would not differ much between the action alternatives. Other administrative burdens that may result from all of the action alternatives considered would take the form of development and dissemination of outreach and education materials for fishery participants.

19.6 Annual Catch Target (ACT) for Atlantic Migratory Group Cobia

Action 19.6a (Commercial Sector ACT) Alternatives

Preferred Alternative 1. Do not specify commercial sector ACTs for Atlantic migratory group cobia.

Alternative 2. The commercial sector ACT equals 90% of the commercial sector ACL.

Alternative 3. The commercial sector ACT equals 80% of the commercial sector ACL.

Preferred	Commercial Sector ACT	
Commercial ACL	ACT Alt. 2; ACT=90%(ACL)	ACT Alt. 3; ACT=80%(ACL)
125,712	113,141	100,570

Action 19.6b (Recreational Sector ACT) Alternatives

Alternative 1 (No Action). Do not specify recreational sector ACTs for Atlantic migratory group cobia.

Alternative 2. The recreational sector ACT equals 85% of the recreational sector ACL.

Alternative 3. The recreational sector ACT equals 75% of the recreational sector ACL.

Preferred Alternative 4. The recreational sector ACT equals sector ACL[(1-PSE) or 0.5, whichever is greater].

Proportional Standard Errors (PSEs) from MRFSS/MRIP

Council used 3-year average because this better represents recent catches.

2003	2004	2005	2006	2007	2008	2009	3 year average (2007-09)	5 year average (2005-09)
15.0	20.2	21.4	14.7	15.2	18.9	14.8	16.3	17.0

Preferred	Recreational Sector ACT		
Recreational ACL	ACT Alt. 2; ACT=85%(ACL)	ACT Alt. 3; ACT=75%(ACL)	Preferred ACT Alt. 4; ACT equals sector ACL[(1-PSE) or 0.5, whichever is greater]
1,445,687	1,228,834	1,084,265	1,199,920

Preferred Alternatives

Annual Catch Target (ACT)

- Optional to account for implementation uncertainty

Commercial ACT

- Do not specify
- Commercial quota monitoring expected to ensure commercial ACL is not exceeded.

Recreational ACT

- Estimates of recreational catches are variable
- Use PSE to ensure as catch estimates fluctuate up and down they do not exceed the recreational ACL
- Recreational ACT = 1,199,920 pounds whole weight

ACL or ACT compared to Landings

- Commercial ACL = 125,712 pounds whole weight
- Not exceeded in last 10 years based on data in Table 4.19.3.1.1
- Recreational ACT = 1,199,920 pounds whole weight
- Exceeded in 6 of the last 10 years based on data in Table 4.19.3.1.1
- Overages have been slight except for 2003
- Commercial – no new regulations needed
- Recreational – evaluate new regulations to keep landings < ACT

Impacts from Action 19.6 Annual Catch Target (ACT) for Atlantic Migratory Group Cobia

Biological/Ecological & Physical

Setting an ACT provides more biological protection by accounting for management uncertainty and provides greater assurance that overfishing will be prevented.

Commercial

Alternative 1 would not set an ACT. **Alternatives 2 and 3** would set the ACT below the ACL with **Alternative 3** providing more assurance overfishing would not occur.

Recreational

Alternative 1 would not set an ACT. **Alternatives 2-4** would set the ACT below the ACL with **Alternative 3** providing more assurance overfishing would not occur. **Alternative 4** takes into account the variability of recreational catches while preventing overfishing.

Economic

Commercial Sector ACT

Preferred Alternative 1 proposes the highest commercial ACL and would result in the greatest short-term and long-term economic benefits as long as there is a low risk of overages. If there is a significant risk of overages, **Alternatives 2 and 3** would result in greater long-term economic benefits than **Preferred Alternative 1** but smaller short-term economic benefits.

Recreational Sector ACT

Preferred Alternative 4 proposes the highest recreational ACT and will result in the greatest short-term and long-term economic benefits as long as there is a low risk of overages. If there is a significant risk of overages, **Alternatives 2 and 3** would result in greater long-term economic benefits than **Preferred Alternative 4** but smaller short-term economic benefits.

Social

For the commercial sector, **Preferred Alternative 1** does not establish an ACT and commercial harvest will continue until the ACL is reached, which allows more fishing opportunities and short-term economic benefits to the commercial sector. **Alternative 2** and **Alternative 3** establish the commercial ACT at 90% and 80% of the ACL, respectively, which will cause short-term social impacts as the harvest approaches these levels in a shorter period, and may result in early closing.

For the recreational sector, **Alternative 1** does not establish an ACT and would also have few if any negative social effects. **Alternative 2** and **Alternative 3** would impose reductions from the ACL, which would cause the level to be reached in a shorter period and could limit recreational opportunities and economic benefits if the recreational sector is closed early. **Preferred Alternative 4** would establish a recreational ACT less restrictive than **Alternative 3**, but still may affect future recreational opportunities if the sector continues to grow.

Administrative

Specifying an ACT or sector ACTs alone would not increase the administrative burden over the status-quo. However, the monitoring and documentation needed to track how much of the ACT has been harvested throughout a particular fishing season can potentially result in a need for additional cost and personnel resources if a monitoring mechanism is not already in place. Other administrative burdens that may result from all of the alternatives considered would take the form of development and dissemination of outreach and education materials for fishery participants.

20. Specify Accountability Measures (AMs) for Atlantic Migratory Group Cobia

Note: Accountability Measures (AMs) include in-season measures that are intended to limit each sector to their ACL/ACT and post-season measures to make adjustments if the ACL/ACT is exceeded. In-season measures are equivalent to management measures (regulations) that have been set in the past. The Councils may specify multiple preferreds from among the following:

Action 20 (Accountability Measures) Alternatives
Alternative 1 (No Action). There is no quota for cobia and there are no AMs in place for cobia.
Alternative 2. The commercial AM for this stock is to prohibit harvest, possession, and retention when the quota is met or projected to be met. All purchase and sale is prohibited when the quota is met or projected to be met. Do not implement ACLs or AMs for the recreational sector.
Preferred Alternative 3. The commercial AM for this stock is to prohibit harvest, possession, and retention when the quota is met or projected to be met. All purchase and sale is prohibited when the quota is met or projected to be met. Implement Accountability Measures (AMs) for the recreational sector for this stock. If the ACL is exceeded, the Regional Administrator shall publish a notice to reduce the length of the following fishing year by the amount necessary to ensure landings do not exceed the sector ACL for the following fishing year. Compare recreational ACL with recreational landings over a range of years. For 2011, use only 2011 landings. For 2012, use the average landings of 2011 and 2012. For 2013 and beyond, use three-year running average. **Alternative 4.** Commercial payback of any overage. **Preferred Sub-Alternative 4a.** Payback regardless of stock status. **Sub-Alternative 4b.** Payback only if overfished. **Alternative 5.** Recreational payback of any overage from one year to the next. **Preferred Sub-Alternative 5a.** Payback regardless of stock status. **Sub-Alternative 5b.** Payback only if overfished.

Accountability Measures (AMs)

- Commercial AM = track landings; prohibit harvest & possession when met or projected to be met
- Commercial payback of overage regardless of stock status
- Recreational AM = if landings > Rec. ACL, reduce length of next season
- Compare fishing year landings to Rec. ACL: 1 year, average of 2, then 3-year running average

As part of the performance standard, if the landings exceed the ACT repeatedly, a review of the ACL, ACT, and AM would be triggered. Furthermore, if the catch exceeds the ACL more than once in the last four consecutive years, the entire system of ACLs and AMs would be re-evaluated as required by the National Standard 1 guidelines.

Impacts from Action 20 Specify Accountability Measures (AMs) for Atlantic Migratory Group Cobia

Biological/Ecological & Physical

Alternative 1 is not considered a viable option since it would specify no AMs for the recreational sector and therefore, would not limit harvest to the ACL; there is no commercial or recreational correction for an ACL overage. The Magnuson-Stevens Act requires that mechanisms of accountability be established for all federally managed species. **Alternative 1** would not comply with this mandate, and would provide no biological benefit to the species. **Alternatives 2 and 3** would attempt to limit commercial and recreational harvest to levels at or below the ACL or ACT by reducing and/or closing harvest once a particular landings threshold is met. **Alternative 4** would provide for a commercial payback of any overage with **Sub-Alternative 4a** providing more biological benefits. **Alternative 5** would provide for a recreational payback of any overage with **Sub-Alternative 5a** providing more biological benefits.

Economic

Alternative 2 would result in some positive long-term economic benefits and negative short-term economic benefits for commercial fisheries. However, **Preferred Alternative 3** proposes AMs for both the commercial and recreational sectors and this would have even greater long-term economic benefits for both sectors. However, shortening the length of the recreational fishing season would likely have greater negative short-term economic benefits compared to **Alternatives 4 and 5** due to the importance of particular times of the year for recreational fishing. **Alternatives 4 and 5** require payback of an overage with two **Sub-Alternatives**. While both have positive long-term economic benefits, both also have negative short-term economic benefits due to instability of landings, making maintaining customers more difficult. **Preferred Alternatives 4a and 5a**, while economically beneficial in the long-term, would greater negative short-term economic effects than **Alternatives 4b and 5b**.

Social

Alternative 1 would have little or no effects on the social environment. The commercial sector would experience some negative impacts if the season is closed early (**Alternative 2**) but the recreational sector would not experience any changes due to the alternative. **Preferred Alternative 3** includes an in-season closure for the commercial sector, which would have similar effects as **Alterative 2**. For the recreational sector, **Preferred Alternative 3** includes a reduction of the following year of an overage, which would impact fishing opportunities and economic benefits for the recreational sector. For the commercial sector AM, the mandatory payback in **Preferred Sub-Alternative 4a** does not allow as much flexibility as requiring payback only for overfished (**Sub-Alternative 4b**), and a reduction in the ACL for a subsequent year could have significant negative social impacts if the overage is substantial. **Preferred Sub-Alternative 5a** would have similar effects on the recreational fishing community as mentioned for **Sub-Alternative 4a**, depending on the overage.

Administrative

Alternative 1 (No Action) would not produce near-term administrative impacts but there are no AMs in place for cobia and this alternative would not comply with Reauthorized Magnuson-Stevens Act requirements and therefore, may trigger some type of legal action. If this were to occur, the burden on the administrative environment could be significant in the future. **Alternative 2** would not comply with the Magnuson Stevens Act. **Alternative 3** would increase the administrative burden through the need for in-season monitoring, tracking of recreational landings, rule-making and education and outreach. **Alternatives 4-5**, would result in a minimal increase in administrative burden associated with calculating payback of overages for the commercial or recreational sectors.

21. **Management Measures** for Atlantic Migratory Group Cobia

Action 21 Management Measures
Preferred Alternative 1 (No Action). Recreational and commercial fishermen are limited to two cobia per person. This would retain the following regulations that apply to both recreational and commercial fishermen: (a) 33" fork length minimum size limit, (b) 2 per person bag limit (Note: Florida State regulations only allow 1 per person for recreational and 2 per person for commercial), (c) one day possession limit, (d) must be landed with heads and fins intact, and (d) charter/headboats require a permit for Coastal Migratory Pelagics. Note: The fishing year is January 1 through December 31.
Alternative 2. Specify a commercial trip limit: **Sub-Alternative 2a.** Two cobia per person. **Sub-Alternative 2b.** One cobia per person.
Alternative 3. Reduce the recreational bag limit from 2 to 1 cobia per person.
Alternative 4. Reduce the recreational bag limit from 2 to 1 cobia per boat per day.
Alternative 5. Establish a closed season for the recreational fishery.
Alternative 6. Reduce the recreational bag limit from 2 to 1 cobia per person per day during the spawning season. Note: There was some discussion during the March 2010 Council meeting of using April, May, and June.

Management Measures or Regulations

- No change necessary in commercial fishery; track quota and close when met or projected to be met
- No change proposed for recreational fishery; track landings and if landings > ACT, then reduce the length of following fishing season
- Fishing Year = January 1 – December 31

Table 4.21.3. Summary of percentage reduction in the cobia catch by reducing the bag limit from 2 to 1 per person per day in the recreational fishery.

Source: ACCSP.

Year	Florida	Georgia	South Carolina	North Carolina	Virginia
2009	8%	100%	37%	0%	0%
2008	0%	22%	42%	0%	0%
2007	10%	0%	0%	0%	10%
2006	11%	100%	0%	10%	0%
2005	0%	100%	0%	56%	0%
Range	0-11%	0-100%	0-42%	0-56%	0-10%
Average	6%	64%	16%	13%	2%

Table 4.21.2. Reductions from cobia commercial per person limits.

Method 1: TIP average weight; no maximum cap on number landed

Per person bag limit	Landings (n)		
	2007	2008	2009
1	1,588	1,543	1,774
2	2,034	1,979	2,262

Per person bag limit	% Reduction in Number Landed		
	2007	2008	2009
1	22%	22%	22%
2	0%	0%	0%

Method 2: TIP average weight; maximum cap on number landed

Per person bag limit	Landings (n)		
	2007	2008	2009
1	1,588	1,543	1,774
2	1,874	1,801	2,092

Per person bag limit	% Reduction in Number Landed		
	2007	2008	2009
1	15%	14%	15%
2	0%	0%	0%

Source: NMFS SERO.

Note: The above analyses assume an average cobia weight of 25 lbs. If the average weight of fish caught is greater, then reductions estimated will be less. Similarly, if the average weight of cobia caught is less, the reductions are estimated to be greater.

Impacts of fishing are reflected in the age structure of the SC population based on SCDNR work:

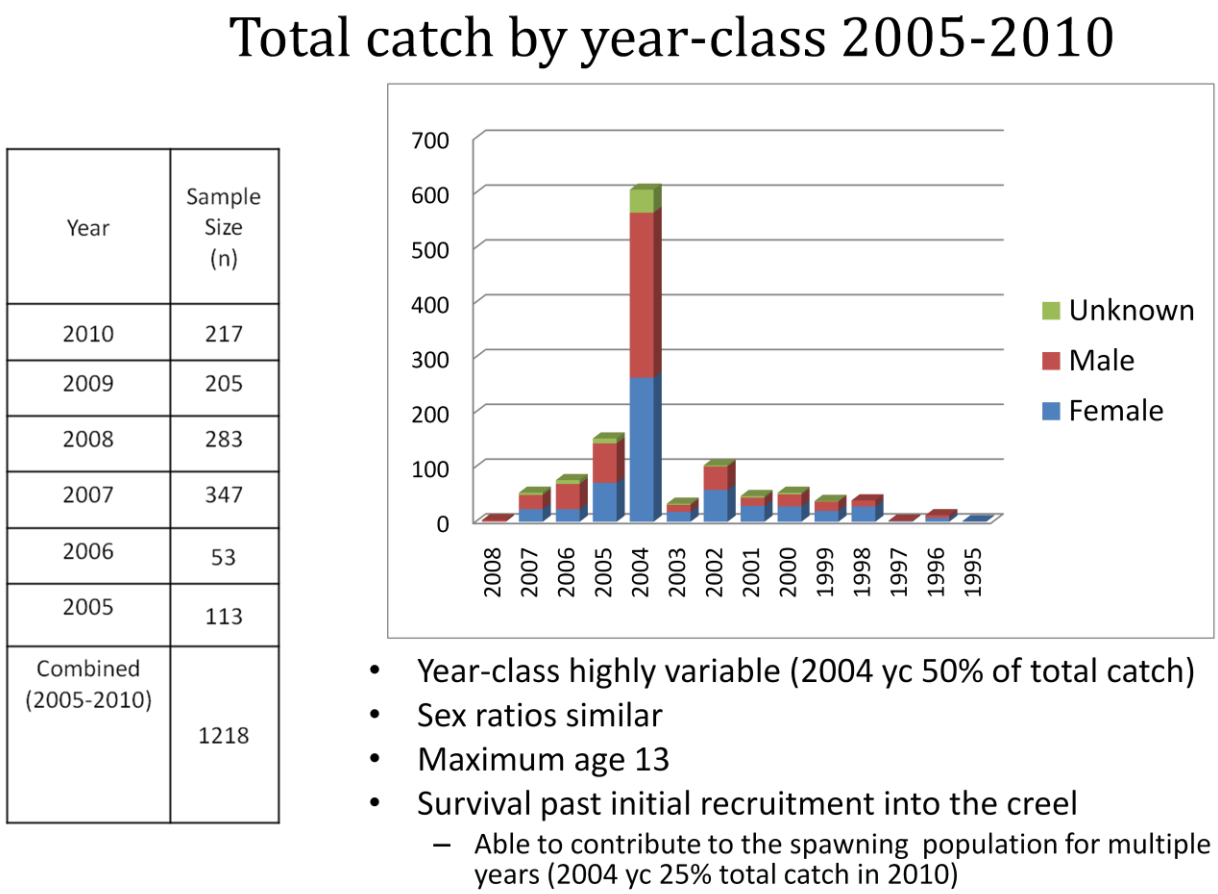


Figure 4.21.12. Total catch of cobia in southern SC by year-class from 2005-2010.

Source: SCDNR unpublished data; Denson *et al.* 2010.

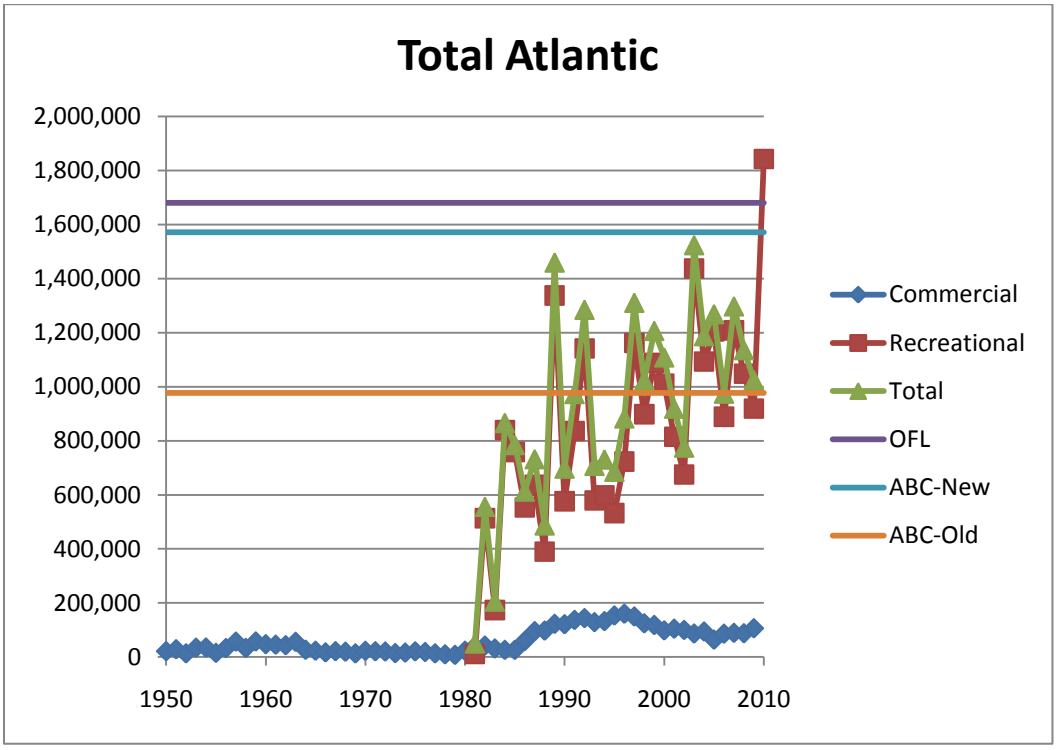


Figure 4.21.11. Landings of cobia in the Mid-Atlantic and South Atlantic.
Source: ACCSP.org

Spawning Season/Closed Season
Recent work by SC DNR researchers (unpublished data from research conducted by South Carolina DNR; Dr. Michael Denson, Dr. Tanya Darden, J. Yost, K. Brenkert, M. Walker, M. Perkinson, L. Lefevbre, B. McAbee, A. Cammarano, A. Stokes, B. Cushman, M. Jamison, J. Richardson, C. Tarpey, and D. Farrae; Cobia Research in SC and Beyond, PowerPoint presentation at a Cobia meeting on March 15, 2011) examined 148 female cobia collected during 2007 and found:

- Males are in spawning condition throughout recreational season (April – June)
- All but 1 female in spawning condition
- 2 gravid females caught in Port Royal and St. Helena Sounds may indicate:
  - Daytime spawning
  - Some may be spawning in Sounds

Results of their sampling from 2005-2010 show:

- Large recreational fishery in SC estuaries
- Current regulations allow fish over 84 cm to be caught, but…
  - Females mature at 80 cm
    - Many may not make it to their first spawn
    - First spawn not always the most productive?
  - Average fork length for age 3 female=97.5 cm
- If spawning is occurring in the estuaries, current management may need adjustment
  - Increase minimum size; implement slot limit; change in bag limit; designate spawning areas as essential habitat

Impacts from Action 21 Management Measures for Atlantic Migratory Group Cobia

Biological/Ecological & Physical

Alternative 1 (No Action) would continue the precautionary management put in place through Coastal Migratory Pelagics (CMP) Amendment 1, implemented in September of 1985, which established a minimum size limit for cobia at 33 inches FL or 37 inches TL. Also, CMP Amendment 5, implemented in August 1990, established a daily bag limit of two (2) cobia per person for both recreational and commercial sectors. CMP Amendment 8, implemented in March 1998, expanded the management area for cobia through the MAFMC's area of jurisdiction (New York). So, since 1998 cobia have been protected with a 2 fish daily bag limit and a 33" FL or 37" TL minimum size limit throughout the management area. **Alternative 1** would continue this level of precautionary biological protection.

Alternative 2 would specify a commercial trip limit based on either the existing 2 cobia per person bag limit (**Sub-Alternative 2a**) or reduce the limit to 1 cobia per person (**Sub-Alternative 2b**). The minimum size limit would remain unchanged under either sub-alternative. **Sub-Alternative 2a** would continue the level of protection in place since 1990 in the South Atlantic and 1998 in the Mid-Atlantic. **Sub-alternative 2b** would reduce the commercial trip limit to 1 cobia per person per trip which would be more biologically conservative unless fishermen made more than one trip per day. As shown in Table 4.21.2, the expected reduction in harvest would range from 14%-22%. The level of reduction would not prevent a commercial closure when the commercial ACL is met or projected to be met.

Reducing the recreational bag limit from 2 to 1 per person (**Alternative 3**) will not impact catches in the Mid-Atlantic except for Virginia where the reduction would be 10% based on 2007 catches (Table 4.21.3). Catches, based on 2005-2009 data, would be reduced on average by 6% in Florida, 64% in Georgia, 16% in South Carolina, and 13% in North Carolina (Table 4.21.3). The bag limit reduction (**Alternative 3**) would help prevent the recreational ACL from being exceeded, if the Council's Interim Control Rule is not accepted, whereas **Alternative 1** would not reduce catches and would likely result in the recreational ACL being met.

Alternative 4 would result in greater reductions in recreational catches than **Alternative 3** and is more biologically conservative. A closed season (**Alternative 5**) could have disproportionate biological impacts depending on when the season was closed. For example, catches in South Carolina mainly occur during April-June and if these times were not closed there would be minimal biological impacts. On the other hand, if they were closed, there would be large biological benefits but obviously large negative social and economic impacts. The level of biological benefit would depend on when the Council chose to consider a closure. The public is invited to comment during the public hearing process on the timing and benefits/costs of a closed season. Similar benefits and costs would result under **Alternative 6**. The fact that the bulk of South Carolina's catch (about 50%) relies on the strong 2004 year class (Figure 4.21.12) raises a point of concern and the recreational sector may want to consider reducing the bag limit to 1 per person per day to head off any future problems. The public is urged to comment on this during the hearing process.

Any management measures that reduce effort could affect the physical environment.

Economic

Commercial

Alternative 2b decreases the number of cobia that can be taken commercially by limiting the number of cobia to 1 fish per person per trip compared to 2 fish per person under **Alternative 1 (No Action)**. Imposing

this restriction to previous years (2007-09) indicates a 14-22% reduction in the number of fish landed, depending on the method used. This would result in short-term economic losses but possible long-term economic benefits. **Alternative 2a** is the same as **Alternative 1 (No Action)** and no economic losses would be expected to the commercial fishery.

Recreational
Reducing the recreational bag limit from 2 to 1 cobia person (**Alternative 3**) and reducing the bag limit from 2 to 1 cobia per boat per day (**Alternative 4**) would have negative short-term economic effects on the recreational fishery. However, **Alternatives 3 and 4** could have a positive long-term economic effect on the recreational fishery if the proposed management strategies succeeded in decreasing the total number of cobia harvested each year. **Alternatives 5 and 6** would both have negative short-term economic effects and positive long-term economic effects on the recreational fishery.

Social

Preferred Alternative 1 and **Sub-Alternative 2a** would maintain status quo for commercial bag limits and would likely have little or no impacts on either sector. **Sub-Alternative 2b** could result in lower catches for commercial cobia fishermen if only one fish is allowed per person per trip.

For the recreational sector, there would be little or no social effects from **Preferred Alternative 1**. The restrictive measures in **Alternatives 3-6** will reduce the fishing opportunities and short-term economic benefits, although could result in long-term positive social benefits by decreasing the likelihood of an early closure or resource depletion.

Administrative

Under the **Alternative 1** (no action) the administrative impacts would not increase. **Alternatives 2-5** would result in a moderate increase in the administrative burden due to rule-making, monitoring, enforcement, and outreach.

PUBLIC HEARING DATES & LOCATIONS

All hearings are from 5 pm – 7 pm

Monday, April 11, 2011 - Hilton New Bern/Riverfront, 100 Middle Street, New Bern, NC 28560 Phone: 252-638-3585	**Monday, April 18, 2011** – Radisson Resort at the Port, 8701 Astronaut Boulevard, Cape Canaveral, FL 32920, Phone: 321-784-0000
Tuesday, April 12, 2011 – Hilton Garden Inn, 5265 International Boulevard, North Charleston, SC 29418, Phone: 843-308-9330	***Tuesday, April 19, 2011** – Hawks Cay Resort, 61 Hawks Cay Boulevard, Duck Key, FL 33050, Phone: 305-743-7000
Wednesday, April 13, 2011 - Mighty Eighth Air Force Museum, 175 Bourne Avenue, Pooler, GA 31322, Phone: 912-748-8888	***Wednesday, April 20, 2011** – Doubletree Grand Key, 3990 South Roosevelt Boulevard, Key West, FL 33040, Phone: 305-293-1818
Thursday, April 14, 2011 – Crowne Plaza Jacksonville Riverfront, 1201 Riverplace Boulevard, Jacksonville, FL 32207; Phone: 904-398-8800	*Denotes joint hearing by the Gulf of Mexico & South Atlantic Fishery Management Councils

What's Next?

- Scientific & Statistical Committee (4/5/11 - 4/7/11) in N. Charleston
- Mackerel Advisory Panel (4/6/11-4/8/11) in Charleston
- Public Hearings from NC thru FL Keys (4/11/11 - 4/20/11)
- Comments due by 5 p.m. on Friday, April 29, 2011
- Joint SAFMC/GMFMC Mackerel Committee (6/9/11) in Key West
- Public Comment at Gulf Council meeting (6/9/11 afternoon) in Key West
- Joint Councils (6/10/11) in Key West – Final Approval
- Send to Secretary of Commerce June/July
- Regulations effective by December 31, 2011

Written comments: Bob Mahood, Executive Director, South Atlantic Fishery Management Council, 4055 Faber Place Drive, Suite 201, North Charleston, SC 29405.

Email: MackAmend18Comment@safmc.net for Amendment 18 to the Coastal Migratory Pelagics FMP.

DEADLINE
All comments must be received by 5 p.m. on April 29, 2011