DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

50 CFR Part 635

[Docket No. 110831548–2430–01]

RIN 0648–BB29

Highly Migratory Species; Atlantic Shark Management Measures

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Proposed rule; request for comments.

SUMMARY: NMFS is amending the 2006 Consolidated Atlantic Highly Migratory Species Fishery Management Plan based on several shark stock assessments that were completed from 2009 to 2012. The assessments for Atlantic blacknose, dusky, and scalloped hammerhead sharks indicated that these species are overfished and experiencing overfishing. The assessment for sandbar sharks indicated that this species is overfished, but not experiencing overfishing. The assessment for Gulf of Mexico blacktip sharks, adopted in this rulemaking, indicated that the stock is not overfished and not experiencing overfishing. The assessment for Gulf of Mexico blacknose sharks was not accepted; therefore, the overfished and overfishing statuses have been determined to be unknown. The Magnuson-Stevens Fishery Conservation and Management Reauthorization Act (Magnuson-Stevens Act) requires the Agency to implement management measures that prevent overfishing and rebuild overfished stocks, as necessary. Based on the new stock assessments, and after considering public comments received during scoping and on a predraft document, we are proposing measures that would reduce fishing mortality and effort in order to rebuild overfished Atlantic shark species while ensuring that a limited sustainable shark fishery can be maintained consistent with our legal obligations. The proposed measures include changes to commercial quotas and species groups, the creation of several time/area closures, a change to an existing time/area closure, an increase in the recreational minimum size restrictions, and the establishment of recreational reporting for certain species of sharks. The proposed measures could affect U.S. commercial or recreational fishermen who harvest sharks within the Atlantic Ocean, including the Gulf of Mexico and Caribbean Sea.

DATES: Written comments will be accepted until February 12, 2013. NMFS will announce the dates and locations of public hearings in a future **Federal Register** notice.

ADDRESSES: NMFS will announce the dates and locations of public hearings in a future **Federal Register** notice.

You may submit comments on this document, identified by NOAA–NMFS–2012–0161, by any of the following methods:

- *Electronic Submission:* Submit all electronic public comments via the Federal e-Rulemaking Portal *www.regulations.gov.* To submit comments via the e-Rulemaking Portal, first click the ''submit a comment'' icon, then enter NOAA–NMFS–2012–0161 in the keyword search. Locate the document you wish to comment on from the resulting list and click on the ''Submit a Comment'' icon on the right of that line.
- *Mail:* Submit written comments to Peter Cooper, 1315 East-West Highway, Silver Spring, MD 20910.
- *Fax:* 301–713–1917; *Attn:* Peter Cooper

Instructions: Comments must be submitted by one of the above methods to ensure that the comments are received, documented, and considered by NMFS. Comments sent by any other method, to any other address or individual, or received after the end of the comment period, may not be considered. All comments received are a part of the public record and will generally be posted for public viewing on *www.regulations.gov* without change. All personal identifying information (e.g., name, address, etc.) submitted voluntarily by the sender will be publicly accessible. Do not submit confidential business information, or otherwise sensitive or protected information. NMFS will accept anonymous comments (enter ''N/A'' in the required fields if you wish to remain anonymous). Attachments to electronic comments will be accepted in Microsoft Word or Excel, WordPerfect, or Adobe PDF file formats only.

Written comments regarding the burden-hour estimates or other aspects of the collection-of-information requirements contained in this proposed rule may be submitted to the Highly Migratory Species Management Division of the Office of Sustainable Fisheries and by email to *OIRA_Submission@omb.eop.gov* or fax to (202) 395–7285.

FOR FURTHER INFORMATION CONTACT: Peter Cooper, Guý DuBeck, Michael Clark, or Karyl Brewster-Geisz at 301–427–8503.

SUPPLEMENTARY INFORMATION: Atlantic tunas and swordfish are managed under the dual authority of the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) and the Atlantic Tuna Conventions Act (ATCA), which authorizes the Secretary of Commerce (Secretary) to promulgate regulations as may be necessary and appropriate to implement recommendations of the International Commission for the Conservation of Atlantic Tunas (ICCAT). Federal Atlantic shark fisheries are managed under the authority of the Magnuson-Stevens Act. The authority to issue regulations under the Magnuson-Stevens Act and ATCA has been delegated from the Secretary to the Assistant Administrator for Fisheries, NOAA (AA). On May 28, 1999, NMFS published in the **Federal Register** (64 FR 29090) final regulations, effective July 1, 1999, implementing the Fishery Management Plan (FMP) for Atlantic Tunas, Swordfish, and Sharks (1999 FMP). On October 2, 2006, NMFS published in the **Federal Register** (71 FR 58058) final regulations, effective November 1, 2006, implementing the 2006 Consolidated Highly Migratory Species (HMS) FMP, which details the management measures for Atlantic HMS fisheries, including the Atlantic shark fisheries.

Background

A brief summary of the background of this proposed action is provided below. Additional information regarding Atlantic HMS management can be found in the Draft Environmental Impact Statement for Amendment 5, the 2006 Consolidated HMS FMP and its amendments, the annual HMS Stock Assessment and Fishery Evaluation Reports, and online at *http://www.nmfs.noaa.gov/sfa/hms/.*

On April 28, 2011, we made the determination that scalloped hammerhead sharks were overfished and experiencing overfishing (76 FR 23794). On October 7, 2011, we published a notice announcing our intent to prepare a proposal for Amendment 5 to the 2006 Consolidated HMS FMP with an Environmental Impact Statement in accordance with the requirements of the National Environmental Policy Act (76 FR 62331) based on several assessments and determinations. In that notice, we made stock status determinations based on the results of the Southeast Data, Assessment, and Review 21 process. Determinations in the October 2011

notice included that sandbar sharks are still overfished, but no longer experiencing overfishing, and that dusky sharks are still overfished and still experiencing overfishing (i.e., their stock status has not changed). The October 2011 notice also acknowledged recent available scientific information indicating that there are two stocks of blacknose sharks, the Atlantic blacknose shark and the Gulf of Mexico blacknose shark, and that the Atlantic blacknose shark stock is overfished and experiencing overfishing, and the Gulf of Mexico blacknose shark stock status is unknown.

In that notice, as part of a scoping process for Amendment 5, we asked for comments on existing commercial and recreational shark management measures that would assist us in determining options for conservation and management of scalloped hammerhead, sandbar, dusky, and blacknose sharks consistent with relevant Federal statutes. We held six scoping meetings from October through December 2011 and released a scoping presentation in conjunction with the **Federal Register** notice. In the presentation and at the scoping meetings, we described results of stock assessments and potential options for management of scalloped hammerhead, sandbar, dusky, and blacknose sharks to reach rebuilding goals.

We released a predraft of Amendment 5 to the 2006 Consolidated HMS FMP, which summarized and incorporated comments received during scoping, to the HMS Advisory Panel on March 14, 2012, and made it available to the public on the Internet for broader public comment. The predraft included, among other things, the outcome of stock assessments for sandbar, dusky, scalloped hammerhead, Atlantic blacknose, and Gulf of Mexico blacknose sharks as well as potential management measures for these species/stocks. We requested that the HMS Advisory Panel and Consulting Parties (Atlantic, Gulf, and Caribbean Fishery Management Councils, Marine Fisheries Commissions, U.S. Coast Guard, and other State and Federal Agency representatives) submit comments on the predraft by April 13, 2012. The predraft was published online and public comments were collected.

We published a **Federal Register** notice on May 29, 2012 (77 FR 31562) notifying the public that we were considering the addition of Gulf of Mexico blacktip sharks to Amendment 5. This addition was proposed because Gulf of Mexico blacktip sharks were undergoing a stock assessment as part of the Southeast Data, Assessment, and Review 29 process, and that process would be completed before this amendment was finalized. Therefore, we believed that the addition of Gulf of Mexico blacktip sharks to this amendment would facilitate administrative efficiency by optimizing our resources, and would allow us to address new scientific information in the timeliest manner. We also expected that this addition would provide better clarity to and understanding by the public regarding any possible impacts of the rulemaking on shark fisheries by combining potential management measures resulting from recent shark stock assessments into one rulemaking. Public comments on this addition to Amendment 5 were accepted until June 21, 2012. We received two comments on the notice, one supporting the addition of blacktip sharks, the other opposing the addition. The commenter who opposed the addition felt that more time was needed in the predraft scoping period to provide comment on any particular proposals regarding blacktip shark management. While it is preferable to have a pre-draft, it is not a legal requirement and we believe that ample opportunity will be presented through the rulemaking process for public input and comment. The commenter who supported the addition felt that this was the most responsive and timely way to address the stock assessment.

The Final Stock Assessment Report for Gulf of Mexico Blacktip Sharks was completed in June 2012, and the peer review was completed in July 2012. The assessment was conducted through the Southeast Data, Assessment, and Review process and the peer review was conducted by two scientists under the Center for Independent Experts. Both peer reviewers raised questions about the assessment. One reviewer accepted the model and its results. The other peer reviewer supported the assessment's conclusion that the Gulf of Mexico blacktip shark stock is not overfished, but concluded that the status regarding overfishing is uncertain. The Southeast Fisheries Science Center addressed the questions from the peer reviewers in a post peer-review ''updates and projections'' document written by stock assessment scientists, who were the lead scientists during the Southeast Data, Assessment, and Review 29 process. The scientists concluded that the reviewer's conclusion on the overfishing status was based on the reviewer's interpretation that the model configuration was not appropriate for the stock. Specifically, the peer reviewer did not think that reasonable variation in recruitment was incorporated into the model and was not confident about the conclusion of ''no overfishing'' reached in the assessment because three of the indices had declined in the last five years and because maximum sustainable yield fishing mortality (F_{MSY}) was low. The peer reviewer stated that a model with reasonable variation in recruitment could indicate a current fishing mortality more similar to F_{MSY} and thus show the stock approaching an overfishing condition. The stock assessment scientists showed in the post-review updates and projections document that process error in recruitment was fully considered and that recruitment in the model was reasonable. They also showed that the low value of F_{MSY} is consistent with what is expected from the biology of sharks, and that of the three indices mentioned by the reviewer that showed a decline, two show an increase in the terminal year of 2010. Therefore, the stock assessment scientists concluded that the stock assessment result of no overfishing is warranted. As such, in this proposed rule, we accept the results of the stock assessment as final and declare the Gulf of Mexico blacktip shark stock to be not overfished with no overfishing occurring.

Results of the stock assessment show that Gulf of Mexico blacktip sharks are not overfished (SSF_{2009}/SSF_{MSY} = 2.50–2.78) and are not experiencing overfishing (F_{2009}/F_{MSY} = 0.03–0.106). Because the stock is healthy, projections and the calculations needed to determine the acceptable biological catch were not considered part of the statement of work for the stock assessment and therefore were not conducted during the stock assessment itself (for an overfished stock, these calculations would have been done before completion of the stock assessment). Rather, the Southeast Fisheries Science Center calculated the projections after the stock assessment as a whole was peer reviewed. The stock assessment noted that current removal rates are sustainable, and the subsequent projections, which were completed outside the Southeast Data, Assessment, and Review process, indicate that current removals are unlikely to lead to an overfished fish stock by 2040. The projections also indicate that higher levels of removal (those associated with an F_{TARGET} scenario) are unlikely to result in an overfished stock; however, the methodology for estimating F_{TARGET} is currently in development for sharks and has yet to be introduced and reviewed within the Southeast Data, Assessment,

and Review process for this species. Therefore, we analyze a range of alternatives to calculate the total allowable catch and define a draft preferred alternative. Once this rule and Amendment is finalized in 2013, we will establish the total allowable catch described in the final preferred alternative to be the annual catch limit for the stock. As described above and in the Alternative Suites, we split the total allowable catch into recreational harvest, dead discards, and commercial landings to calculate the different sector annual catch limits. These sector annual catch limits are currently in draft and their calculation depends on the amount calculated for the total allowable catch. Thus, we analyze a range of sector annual catch limits dependent on the total allowable catch.

Based on comments received during scoping, on the predraft, and on our notice considering the addition of Gulf of Mexico blacktip shark, we determined the scope of significant issues of concern that would be addressed in this draft amendment. The objectives in the draft amendment and this proposed rule are driven by statutory mandates under the Magnuson-Stevens Act, such as rebuilding overfished sandbar, dusky, scalloped hammerhead, and Atlantic blacknose shark stocks, and ending overfishing of dusky, scalloped hammerhead, and Atlantic blacknose sharks. The specific goals and objectives of the draft amendment and proposed rule are: (1) To end overfishing and achieve optimum yield for dusky, scalloped hammerhead, and Atlantic blacknose sharks; (2) to implement a rebuilding plan for scalloped hammerhead and Atlantic blacknose sharks to ensure that fishing mortality levels for both species are maintained at or below levels that would result in a 70-percent probability of rebuilding in the timeframe recommended by the assessments; (3) to modify the current rebuilding plan for dusky sharks to ensure that fishing mortality levels for dusky sharks are maintained at or below levels that would result in a 70-percent probability of rebuilding in the timeframe recommended by the assessment; (4) to maintain the rebuilding plan for sandbar sharks to ensure a 70-percent probability of rebuilding in the timeframe recommended by the assessment; and (5) to achieve optimum yield and provide an opportunity for the sustainable harvest of Gulf of Mexico blacknose, Gulf of Mexico blacktip sharks, and other sharks, as appropriate.

To meet these objectives, we consider a range of alternatives for several different issues including establishing total allowable catches, quota limits, time/area closures and bycatch caps, as well as establishing rebuilding plans for overfished stocks, and recreational measures. Because many of the species-specific total allowable catch, commercial quota, and recreational measures are interlinked, these alternatives are arranged and analyzed in groups of Alternative Suites. In addition to the Alternative Suites, which focus on quotas and recreational measures, we developed potential stand-alone alternatives for pelagic and bottom longline effort modifications or controls. These alternatives contain independent measures to modify and/or establish time/area closures, bycatch caps, and restrictions within the shark research fishery. Many of these effort modification alternatives are designed to reduce fishing mortality of dusky sharks, a species that has been prohibited from commercial and recreational retention since 2000, but was still determined to be overfished and experiencing overfishing. For details regarding all the alternatives considered and their potential impacts, please see draft Amendment 5. A summary of the alternatives and their expected impact is found below. The proposed measures in this rule are the preferred alternatives in draft Amendment 5.

It is important to note that while the alternatives could affect all shark fishing, this proposed rule and the draft Amendment 5 do not propose changes to the current total allowable catch or commercial quota for sandbar sharks. According to the 2010/2011 stock assessment, current management measures implemented in Amendment 2 to the 2006 Consolidated HMS FMP in 2008 appear to have stopped overfishing on sandbar sharks. Additionally, according to the most recent stock assessment, the sandbar shark stock status is improving, and the current rebuilding timeframe, with the 2008 total allowable catch of 220 metric tons (mt) whole weight (ww) (158.3 mt dressed weight (dw)), provides a greater than 70-percent probability of rebuilding by 2070. Having a 70-percent probability of rebuilding is the level of success for rebuilding of sharks that was established in the 1999 FMP for Atlantic Tunas, Swordfish, and Sharks and carried over in the 2006 Consolidated HMS FMP. The recent stock assessment also indicates that reducing the total allowable catch from the current 220 to 178 mt ww (128 mt dw) would provide a 70-percent chance of rebuilding the stock by the year 2066, a reduction of 4 years from the current rebuilding timeframe. Because the current total allowable catch already provides a greater than 70-percent probability of rebuilding, and because overfishing is not occurring and the stock status is improving, we believe that maintaining the current total allowable catch and rebuilding plan is fully consistent with the Magnuson-Stevens Act requirements and the National Standard Guidelines. Additionally, a change in the rebuilding plan that would result in a reduction in total allowable catch of sandbar sharks from 220 to 178 mt ww could have significant economic impacts to fishermen participating in the shark research fishery. If fishermen feel the economic impacts are sufficiently negative, they are less likely to participate in the shark research fishery which, in turn, would likely reduce the ability of the Agency to both collect biological and other data for stock assessments from the research fishery and monitor the status of sandbar and other sharks. Furthermore, we anticipate that the other measures proposed, such as modifications to the recreational minimum size and new or expanded time/area closures, would likely further reduce fishing mortality of sandbar sharks beyond the reductions considered in the assessment, and that these reductions will likely provide assurances of meeting or reducing the current rebuilding timeframe. After considering this information, we are maintaining the current sandbar shark total allowable catch of 220 mt ww and the current sandbar shark rebuilding plan including regulations prohibiting possession of sandbar sharks in commercial and recreational shark fisheries and allowing retention only in a shark research fishery.

In addition to the management measures considered in this proposed action and below, we are also proposing several minor changes in the regulations for corrective or clarification purposes. The proposed changes are not expected to have any ecological or economic impacts and do not impose any new requirements on the regulated community or require fishermen to change their actions to comply with the regulations. These administrative changes are: (1) The addition of a definition for ''fork length''; (2) an update to the permit Web page and name of the reporting system at § 635.5(c)(1); (3) the deletion of incorrect text referring to swordfish permits in a sentence regarding tunas at § 635.20(a); (4) a correction changing the term ''NED closed area'' to ''NED restricted area'' at § 635.21(c)(5)(iii)(C);

(5) the removal of smoothhound shark language at § 635.24(a)(7) that incorrectly remained after the final rule (November 10, 2011, 76 FR 70064) delaying the effectiveness of the smoothhound measures indefinitely; (6) the removal of language at § 635.27(b)(1)(iv)(C) that required landings reported by dealers located in certain areas to be counted against the regional quota where the dealer is located. Measures recently put in place in the electronic dealer reporting rule (August 8, 2012, 77 FR 47303) allow dealers to report and to count landed fish against the appropriate quota of the region where the fish was caught; and (7) in Table 1 of Appendix A, a correction to the scientific name of Atlantic angel sharks along with a removal of the headings ''ridgeback'' and ''non-ridgeback sharks'' since, with the proposed changes in this rule, those terms are no longer used. Additionally, to accommodate the changes being proposed and to more clearly organize the regulations § 635.27(b) has been reorganized. Changes to the operative text are minimal and include: removing language and sentences that refer to text that will be expired before this rule is finalized and removing terms such as ''non-sandbar LCS'' that would no longer be operable based on the proposed changes in this rule.

Summary of the Alternatives Considered Regarding Total Allowable Catches, Commercial Quotas, and Recreational Measures

As described above, because many of the species-specific total allowable catch, commercial quota, and recreational measures are interlinked, these alternatives are arranged in groups of Alternative Suites. We considered five Alternative Suites that were chosen to meet the objectives of the rulemaking consistent with the Magnuson-Stevens Act, the 2006 Consolidated HMS FMP and its amendments, and other requirements. Each Alternative Suite analyzes certain management actions under seven different topics including: Scalloped hammerhead measures, large coastal shark (LCS) measures, blacktip measures, blacknose measures, non-blacknose small coastal shark (SCS) measures, quota linkage measures, and recreational measures.

A. Analyses of the Proposed Alternative Suite

We are proposing the management measures in Preferred Alternative Suite A2, the Preferred Alternative Suite in the draft Amendment 5. Preferred Alternative Suite A2 would establish species-specific total allowable catches for scalloped hammerhead, Atlantic blacknose, Gulf of Mexico blacknose, and Gulf of Mexico blacktip sharks. It also would also create regional commercial quotas for all hammerheads combined, blacknose, non-blacknose SCS, and ''aggregated LCS,'' and species-specific commercial quotas for blacknose and Gulf of Mexico blacktip sharks. Furthermore, certain quota would be linked to prevent overfishing, and there are multiple recreational measures that would be implemented, including increasing the minimum size and requiring non-tournament reporting of hammerhead sharks. The details and impacts of each of these measures are described below, starting with impacts of the alternative as a whole followed by the impacts of the alternative on each of the seven topics in the Alternative Suite.

Overall, Preferred Alternative Suite A2 is expected to have direct, moderate, beneficial ecological impacts in the short- and long-term as these measures in the Atlantic shark fisheries would end overfishing and rebuild the stocks. These impacts would mostly affect scalloped hammerhead and blacknose sharks, because the quotas for those species would be reduced slightly. The quota linkages between species and species groups would ensure that overfishing ends because shark species that are undergoing rebuilding would not be caught as bycatch in other shark fisheries once the directed quota category has been closed. These management measures would cause neutral indirect impacts in the short- and long-term since fishermen would not be expected to redirect fishing pressure on other species. The cumulative direct and indirect impacts on essential fish habitat, predator/prey relationships, and protected resources would be neutral for the short- and long-term because commercial quotas would be similar to or reduced slightly compared to current levels and fishing pressure is not expected to change.

Overall, Preferred Alternative Suite A2 would likely have direct short- and long-term minor adverse socioeconomic impacts. These impacts would mostly affect fishermen targeting scalloped hammerhead and blacknose sharks, because those quotas for those species would be reduced. Fishermen are likely to adapt to the new regulations by fishing in other fisheries, or changing their fishing habitats. Recreational management measures would increase the size limit and would require fishermen to catch and release sharks (rather than land them), although tournament participants should not be impacted because tournament participants typically target larger sharks and the sharks many tournaments target, such as shortfin mako, blue, and thresher, grow to larger than 96 inches FL. Neutral socioeconomic impacts are expected for fishermen targeting the newly configured ''aggregated LCS'' and non-blacknose SCS groups since the new proposed quotas are based on the average landings for each species. Quota linkages would affect the socioeconomic impacts based on the fishing rate of each linked shark quota. For example, the Preferred Alternative Suite A2 proposes to link regional hammerhead shark and aggregated LCS quotas so that the two quotas will open and close together. If fishermen fill both quotas at about the same rate, there will be little or no unutilized quota. If, however, one or the other is filled at a much faster rate than the other and both quotas close, there could be quota available that otherwise could have been harvested and sold by fishermen. When we compare the socioeconomic impacts of Preferred Alternative Suite A2 to the other Alternative Suites, this Alternative Suite would cause fewer impacts overall to fishermen. For this reason and the ecological reasons stated above, we prefer this Alternative Suite at this time.

1. Scalloped Hammerhead Sharks

Under Preferred Alternative Suite A2, scalloped, smooth, and great hammerhead sharks (hammerhead sharks) would be removed from what is now the ''non-sandbar LCS'' complex, and separate Atlantic and Gulf of Mexico hammerhead shark quotas would be established. To calculate the Atlantic and Gulf of Mexico hammerhead shark quotas, we would estimate the maximum sustainable level of scalloped hammerhead shark commercial landings by using the total allowable catch calculated in the 2009 stock assessment and all sources of scalloped hammerhead mortality (including recreational landings, commercial discards, and research mortality). We would then split this maximum sustainable level of scalloped hammerhead shark commercial landings between each region, and make it applicable to scalloped, smooth, and great hammerhead sharks. As a result, we are proposing that the total Atlantic and Gulf of Mexico commercial hammerhead shark quota would be 52.2 mt dw (115,076 lb dw). This quota would be split between the two regions using the average percentage of hammerhead sharks landed in each region from 2008 to 2011, or 54.2 percent for the Atlantic region and 45.8 percent for the Gulf of Mexico region.

This action would have short- and long-term direct, moderate, beneficial ecological impacts for the following reasons. A separate hammerhead shark quota in each region would allow us to more precisely monitor commercial landings of the species to keep mortality within the recommended total allowable catch in the stock assessment and to rebuild within the parameters set by the rebuilding plan. Additionally, including all three large hammerhead species (scalloped, great, and smooth hammerhead sharks) under the same quota would prevent fishing in excess of the quota that could occur as a result of species identification problems. The three large hammerhead species can be difficult to differentiate, particularly when dressed with the head removed. Including all three species under one quota is proposed, because, otherwise, scalloped hammerhead sharks that are mistakenly identified as one of the other large hammerhead species could improperly be reported under the LCS quota. Including all three species in one quota will therefore enable us to more effectively monitor commercial landings of hammerhead sharks and will provide additional ecological benefits for the species by better tracking the populations and more carefully enforcing the quota limits. Preferred Alternative Suite A2 would cause neutral direct and indirect impacts on essential fish habitat, predator/prey relationships, and protected resources in the short- and long-term because the changed hammerhead shark complex and quota should not increase fishing pressure.

This action would have short- and long-term direct minor adverse socioeconomic impacts due to the reduction in hammerhead shark quotas. From 2008 through 2011, the data indicate that fishermen caught and sold an annual average 63,404 lb dw of hammerhead sharks in the Atlantic and 53,613 lb dw in the Gulf of Mexico. Under Preferred Alternative Suite A2, harvest of hammerhead sharks would be limited to 62,371 lb dw in the Atlantic and 52,705 lb dw in the Gulf of Mexico. Using the ex-vessel prices described in the DEIS under Alternative Suite A1 and assuming a fin-to-carcass ratio of 5 percent, this would result in the hammerhead fishery having an average annual ex-vessel value of $50,721 in the Atlantic (63,404 lb of meat, 3,170 lb of fins) and $53,618 in the Gulf of Mexico (53,613 lb of meat, 2,681 lb of fins). Under the quotas proposed under Preferred Alternative Suite A2, ex-vessel hammerhead shark revenue would be reduced by $809 to $49,912 in the Atlantic (62,390 lb of meat, 3,120 lb of fins) and reduced by $928 to $52,690 in the Gulf of Mexico (52,690 lb of meat, 2,634 lb of fins), assuming the same ex-vessel values and fin-to-carcass ratio. These reductions in revenue would negatively impact fishermen in the directed and incidental hammerhead shark fishery but not to a great extent. Additionally, hammerhead sharks species rarely make up a significant portion of the catch. Therefore, short- and long-term direct minor adverse socioeconomic impacts are expected.

2. Large Coastal Shark Complex

Under Preferred Alternative Suite A2, species formerly grouped in Atlantic and Gulf of Mexico non-sandbar LCS complexes would be re-grouped. Some species now would be addressed individually while others would continue to be managed within a newly-configured and re-named complex. In the Atlantic, all three hammerhead sharks (scalloped, smooth, and great hammerhead sharks) would be removed from the Atlantic non-sandbar LCS quota and a separate Atlantic hammerhead shark quota would be established. The methodology for establishing the Atlantic hammerhead shark quota is outlined above. After removing hammerhead sharks, the sharks remaining from the Atlantic non-sandbar LCS quota would be renamed the ''Atlantic Aggregated LCS quota'' and would include blacktip, bull, lemon, nurse, silky, spinner, and tiger sharks. Using the methodology outlined in draft Amendment 5, under Preferred Alternative Suite A2, the Atlantic Aggregated LCS commercial quota would be 168.2 mt dw. For the Gulf of Mexico region, blacktip sharks as well as all three hammerhead sharks (scalloped, smooth, and great hammerhead sharks) would be removed from the current Gulf of Mexico non-sandbar LCS complex, and the complex, composed of the remaining species, would be renamed the ''Gulf of Mexico aggregated LCS.'' In addition, a separate quota would be established for both blacktip sharks and hammerhead sharks. The Gulf of Mexico Aggregated LCS would include bull, lemon, nurse, silky, spinner, and tiger sharks. Using the methodology described in the draft Amendment 5, under Preferred Alternative Suite A2, the Gulf of Mexico aggregated LCS commercial quota would be 157.9 mt dw.

The aggregated LCS quota would be based on average annual landings of the remaining species. Therefore, those species comprising the aggregated LCS management groups would not experience a change in fishing pressure, and landings would be capped at recent levels. For these reasons, short- and long-term direct ecological impacts resulting from this portion of Preferred Alternative Suite A2 are expected to be neutral. Similarly, the short- and long-term direct socioeconomic impacts resulting from this portion of Preferred Alternative Suite A2 are expected to be neutral. We do not expect any additional ecological or socioeconomic impacts to occur as the result of the measures in this Alternative Suite.

3. Blacktip Sharks

Under Preferred Alternative Suite A2, blacktip sharks would be removed from the non-sandbar LCS quota complex in the Gulf of Mexico and a separate blacktip quota would be established along with a new ''aggregated LCS'' commercial quota. The assessment of Gulf of Mexico blacktip sharks was recently completed and we adopt its results as final in this proposed rule. The assessment and the projections completed by the Southeast Fisheries Science Center indicate that the Gulf of Mexico blacktip shark stock is not overfished and overfishing is not occurring, that current removal rates are sustainable and are unlikely to lead to an overfished stock by 2040, and that higher levels of removal are unlikely to result in an overfished stock. Based on this information, we would establish a total allowable catch based on current sustainable levels of catch. This total allowable catch would be 413.4 mt dw and would be calculated by summing all of the sources of mortality (recreational landings, commercial discards, and research set-aside mortality) and the commercial quota. The commercial quota would be calculated by taking the proportion of current Gulf of Mexico blacktip shark landings that make up the Gulf of Mexico non-sandbar LCS quota multiplied by the Gulf of Mexico non-sandbar LCS quota that will be in effect in 2013. This would result in a commercial quota of 256.7 mt dw (565,921 lb dw).

Neutral short- and long-term direct impacts would be expected under Alternative Suite A2, the preferred alternative, as overfishing is not occurring and commercial landings would be capped at current fishing levels. Based on the stock assessment, this alternative would cause neutral direct and indirect impacts on EFH, predator/prey relationships, and protected resources in the short- and long-term because fishing pressure would be similar to current levels and is not anticipated to change.

This alternative suite's proposed blacktip shark measure is likely to result

in short- and long-term direct socioeconomic neutral impacts. The quota of 256.7 mt dw (565,921 lb dw) of blacktip sharks is representative of the current blacktip shark landings percentage applied to the 2013 Gulf of Mexico non-sandbar LCS quota (see draft Amendment 5 for further details). Based on current average annual landings, the Gulf of Mexico blacktip shark fishery has average annual revenues of $650,809 across the whole fishery (2008–2011 median ex-vessel values of $0.40 for meat and $15for fins, based on a 5 percent fin-to-carcass ratio). Given the current stock status, fishermen would likely continue to realize this revenue, fishery-wide. Therefore, short- and long-term direct socioeconomic impacts are expected to be neutral.

4. Blacknose Sharks

In 2010, Amendment 3 to the 2006 Consolidated HMS FMP (Amendment 3) removed blacknose sharks from the SCS complex and established a separate quota for blacknose sharks that covered both the Atlantic and Gulf of Mexico regions. Preferred Alternative Suite A2 would create separate commercial quotas for Atlantic and Gulf of Mexico blacknose sharks based on the recent blacknose assessments conducted under the Southeast, Data, Assessment and Review 21 process, which determined that two separate stocks exist (Atlantic and Gulf of Mexico). The Atlantic commercial quota would be derived from the total allowable catch of 7,300 blacknose sharks, or 21.2 mt dw, that was specified in the stock assessment. Within the total allowable catch of 21.2 mt dw, all of the sources of mortality (recreational landings, commercial discards, and research set-aside mortality) would be summed and subtracted from the total allowable catch to calculate the commercial quota of 18 mt dw (39,749 lb dw).

The Southeast Data, Assessment, and Review 21 Review Panel did not accept the Gulf of Mexico stock assessment for blacknose sharks, and therefore, we did not receive a total allowable catch recommendation. Therefore, we determined that the stock status for the Gulf of Mexico blacknose shark stock is unknown (76 FR 62331; October 7, 2011). As such, we explored how to calculate a Gulf of Mexico blacknose shark total allowable catch that would include all commercial and recreational landings and any dead discards in all fisheries that interact with Gulf of Mexico blacknose sharks. A total allowable catch of 34.9 mt dw for blacknose sharks was calculated by summing mortality from the 2011 commercial fishery and average recreational and discard mortality since the implementation of blacknose shark measures from Amendment 3 to the 2006 Consolidated HMS Fishery FMP in 2010. Amendment 3 removed blacknose sharks from the SCS quota and created a blacknose shark-specific quota of 19.9 mt dw (43,872 lb dw) for both regions. Also, the blacknose shark and non-blacknose SCS quotas were linked, so if either the blacknose shark quota or non-blacknose SCS quota (488,540 lb dw; 221.6 mt dw) reaches 80 percent, both fisheries close for the rest of the season. The reduced quotas and quota linkage changed the fishery as fishermen began avoiding blacknose sharks to ensure that the larger non-blacknose SCS quota remained open. The 2011 commercial mortality was used to calculate the total allowable catch instead of average commercial mortality since Amendment 3 was implemented because of a shortened 2010 fishing season due to the implementation of Amendment 3 (season opened on June 1, 2010) and fishing restrictions due to the Deepwater Horizon/BP oil spill. On May 11, 2010, we issued an emergency rule to close portions of the Gulf of Mexico Exclusive Economic Zone to all fishing, in order to respond to the evolving nature of the Deepwater Horizon/BP oil spill in the Gulf of Mexico (75 FR 27217). Thus, a large portion of the fishing grounds for blacknose and non-blacknose SCS in the Gulf of Mexico, whose commercial fishing season opened on June 1, 2010, were closed for most of the 2010 commercial fishing season. Using 2011 commercial landings of blacknose sharks in the Gulf of Mexico, the new Gulf of Mexico blacknose shark commercial quota would be 2.0 mt dw (4,513 lb dw). Establishing this total allowable catch would account for the blacknose shark mortality that occurs as bycatch in the shrimp trawl and reef fish fisheries in the Gulf of Mexico region. Since the Gulf of Mexico Fishery Management Council manages the shrimp trawl and reef fish fisheries, we would continue to work with the Gulf of Mexico Fishery Management Council to establish bycatch reduction methods, as appropriate, to reduce mortality in the shrimp trawl and reef fish fisheries.

Preferred Alternative Suite A2 is anticipated to have minor, beneficial ecological impacts for blacknose sharks as it would separate blacknose sharks into two separate regions (Atlantic Ocean and Gulf of Mexico) as recommended in the Southeast Data, Assessment and Review 21 stock assessment and reduce fishing mortality based on the total allowable catch. The Atlantic blacknose shark stock is overfished with overfishing occurring, while the Gulf of Mexico stock status is unknown. Projections of the base model indicated that the Atlantic stock could rebuild by 2043 with a total allowable catch of 7,300 blacknose sharks. For the Gulf of Mexico blacknose shark stock, we would use a total allowable catch of 17,802 blacknose sharks, which was determined by using the average mortality of blacknose sharks since Amendment 3 as well as commercial landings from 2011. Preferred Alternative Suite A2 would cause neutral direct and indirect impacts on essential fish habitat, predator/prey relationships, and protected resources in the short- and long-term because the fishery would not change.

This alternative would decrease the blacknose shark quotas overall in each region. In the Atlantic region, blacknose shark landings would be reduced by 61 percent to allow for a total allowable catch of 7,300 blacknose sharks consistent with the assessment. The new commercial quota for the Atlantic blacknose sharks would be 18.0 mt dw (39,749 lb dw) under Preferred Alternative Suite A2. Average annual gross revenues for the blacknose shark landings for the Atlantic region would decrease by $3,268 from $58,122 under the No Action alternative to $54,854 under Preferred Alternative Suite A2. We anticipate these directed and incidental shark permit holders would experience minor direct adverse socioeconomic impacts in the short- and long-term as blacknose sharks are not the targeted shark species for SCS fishermen.

For the Gulf of Mexico, we would implement a blacknose shark quota that is equal to the 2011 commercial landings. The new quota would be 2.0 mt dw (4,513 lb dw) under this alternative. This would cause a minor increase to the average annual gross revenues for the blacknose shark landings for the Gulf of Mexico region from $3,273 under the No Action alternative to $5,650 under Preferred Alternative Suite A2. We anticipate these directed and incidental shark permit holders would experience neutral direct socioeconomic impacts in the short- and long-term since the new Gulf of Mexico blacknose shark quota would be consistent with current landings.

Under Preferred Alternative Suite A2, we anticipate that there would be direct moderate adverse socioeconomic impacts in the short-term from the proposed quotas under this Alternative Suite. In the short-term, lost revenues would be moderate for the 22 directed

shark permit and 3 incidental shark permit holders that land blacknose sharks in the Atlantic region, and the 8 directed shark and the 2 incidental shark permits that land blacknose sharks in the Gulf of Mexico. Over the long-term, the socioeconomic impact would be minor, as the fishermen are likely to adapt to the new regulations by fishing in other fisheries, or change their fishing habitats. The indirect socioeconomic impacts from Preferred Alternative Suite A2 would be adverse, but minor in the short-term, as the anticipated reduction in blacknose landings would result in a corresponding loss of revenue for a small number of businesses as blacknose shark product does not make up a large part of the market. In the long-term, these indirect impacts would be neutral as businesses would be expected to find other sources of revenue to augment the losses from the reduced quotas.

5. Non-Blacknose Small Coastal Sharks

Preferred Alternative Suite A2 would separate the non-blacknose SCS quota into two separate regions (Atlantic Ocean and Gulf of Mexico) based on the percentage of regional landings since implementation of the Amendment 3 blacknose shark quotas. As described above, blacknose sharks were removed from the SCS complex and a non-blacknose shark-specific quota of 221.6 mt dw (488,540 lb dw) was created for both regions. Blacknose shark and non-blacknose SCS quotas were also linked so that if either the non-blacknose SCS quota or blacknose shark quota reaches 80 percent, both fisheries close for the rest of the fishing year. The reduced quotas and quota linkage changed how the SCS fishery operated as fishermen began to specifically avoid blacknose sharks to ensure that the larger non-blacknose SCS quota would remain open. According to 2010 and 2011 dealer data, an average of 89.3 percent of non-blacknose landings occurred in the Atlantic region (94.2 and 85.2 percent for 2010 and 2011, respectively). The 2010 and 2011 Gulf of Mexico non-blacknose SCS landings were 5.8 and 14.8 percent, respectively, for an average of 10.7 percent for total Gulf of Mexico non-blacknose SCS landings. Based on these averages, the new non-blacknose SCS quota in the Atlantic would be 197.9 mt dw (436,290 lb dw), while the Gulf of Mexico quota would be 23.7 mt dw (52,249 lb dw).

This alternative is anticipated to have direct, minor beneficial ecological impacts for Atlantic sharpnose, bonnethead, and finetooth sharks in the short- and long-term as it would create regional quotas and restrict fishing mortality below the total allowable catch established for SCS in the last stock assessment for those species. Currently, there is one quota for non-blacknose SCS in both the Atlantic and Gulf of Mexico, and, according to landings reports from 2008 through 2011, fishing pressure for non-blacknose SCS is higher in the Atlantic region. Over time, this could cause unsustainable fishing pressure on non-blacknose SCS in the Atlantic region. However, regional quotas would cap fishing pressure at levels since Amendment 3 was implemented and prevent overfishing. Since fishing pressure would be similar to current levels, the impacts on essential fish habitat, predator/prey relationships, and protected resources would be neutral.

Based on the landings data, the non-blacknose SCS quota in the Atlantic would be 197.9 mt dw (436,243 lb dw) and the Gulf of Mexico quota would be 23.7 mt dw (52,296 lb dw). In the Atlantic, an average of approximately 33 vessels with directed shark permits landed blacknose sharks, while approximately 10 vessels with incidental shark permits landed non-blacknose SCS. The average annual gross revenues from Atlantic non-blacknose SCS meat were $314,095 and average annual gross revenues for Atlantic non-blacknose SCS fins were $261,746, making total average annual gross revenues for blacknose shark landings for the entire fishery $575,841.

In the Gulf of Mexico, an average of approximately nine vessels with directed shark permits landed blacknose sharks, while approximately three vessels with incidental shark permits landed non-blacknose SCS since Amendment 3. The average annual gross revenues from Gulf of Mexico non-blacknose SCS meat were $31,378 and average annual gross revenues for Atlantic non-blacknose SCS fins were $39,222, making total average annual gross revenues for blacknose shark landings for the entire fishery $70,600.

Under the Preferred Alternative Suite A2, there would be neutral direct and indirect socioeconomic impacts to directed and incidental shark permit holders as the average annual gross revenues from non-blacknose SCS landings would be the same as the status quo in the short- and long-term. Fishermen and shark dealers would be expected to operate in the same manner as the status quo in the short- term. However, this Alternative Suite could have minor negative direct and indirect socioeconomic impacts on fishermen and shark dealers and associated shark businesses that deal with non-blacknose SCS product if fishing effort increases for non-blacknose SCS. Currently, the fishery never reaches the allowable quota, but that could change with a smaller regional quota and if fishermen are displaced from other fisheries.

6. Quota Linkages

Under Preferred Alternative Suite A2, several quota linkages would be implemented to prevent exceeding the newly established quotas. Generally, two or more shark species with separate quotas are caught together on the same set or trip. If the quota for one of these species has been filled and closed, that species could still be caught in other directed shark fisheries as bycatch, possibly resulting in mortality and negating some of the conservation benefit of quota closures. Preferred Alternative Suite A2 would link several quotas to ensure that the quota for shark species that are caught together open and close at the same time. In the Atlantic, the hammerhead shark and aggregated LCS quotas would be linked. These two quotas would open at the same time and both quotas would close when landings of either hammerhead sharks or aggregated LCS reach, or are expected to reach, 80 percent of the quota. Opening and closing these two quotas concurrently would strengthen the conservation benefits of either group's quota closure. Similarly, in the Gulf of Mexico, hammerhead sharks, blacktip sharks, and the aggregated LCS quota would open at the same time and all three quotas would close when landings of any one of the three quotas reach, or are expected to reach, 80 percent. Also, linkage of the blacknose and non-blacknose SCS regional quotas would be implemented under this alternative. The Atlantic blacknose shark quota would be linked to the Atlantic non-blacknose SCS quota, and the Gulf of Mexico blacknose shark quota would be linked to the Gulf of Mexico non-blacknose SCS quota.

We would also establish a mechanism to allow inseason and annual regional quota transfers between species or species groups where the quota was split regionally for management purposes and not as a result of a stock assessment. At this time, only the Atlantic and Gulf of Mexico non-blacknose SCS and the Atlantic and Gulf of Mexico hammerhead regional quotas meet this criterion. Monitoring total mortality for these quotas, not regional-specific mortality, is necessary for conservation purposes. Providing this regional quota transfer flexibility would facilitate overall quota management while having no negative conservation impacts on stocks where

regional mortality is not a concern for stock conservation. Before making any inseason quota transfer, we would consider certain criteria and other relevant factors described in § 635.27(b)(2)(iii)(A) through (b)(2)(iii)(H).

The quota linkages proposed under this Alternative Suite would be expected to have short- and long-term direct moderate beneficial ecological impacts. Linking quotas of species that are often caught together on the same set or trip can prevent incidental catch of sharks caught in other directed shark fisheries as bycatch, possibly resulting in mortality and negating some of the conservation benefit of quota closures. For quotas that are linked, the fisheries would open and close together. In the Atlantic, the hammerhead shark and aggregated LCS quotas would be linked as would the non-blacknose SCS and blacknose shark quotas. If, for example, the Atlantic the hammerhead quota closes based on landings information, the Atlantic aggregated LCS quota would close as well, preventing additional incidental hammerhead mortality from occurring in the directed aggregated LCS fishery. Similarly, if the aggregated LCS quota closes, a hammerhead quota closure would prevent incidental aggregated LCS landings in the directed hammerhead fishery, to the extent that a directed hammerhead fishery occurs. In the Gulf of Mexico, the blacktip, hammerhead, and aggregated LCS quota would be linked as would the non-blacknose SCS and blacknose shark quotas. In addition, we would allow inseason regional quota transfers between regions for species or management groups where the species are the same between regions and the quota is split between regions for management purposes and not as a result of a stock assessment. At this time, only the hammerhead sharks and the regional non-blacknose SCS meet this description; and therefore, we are proposing that only the hammerhead shark and non-blacknose SCS regional quotas can be transferred on an inseason basis between regions. Before making any inseason quota transfer, we would consider certain criteria and other relevant factors described in § 635.27(b)(2)(iii)(A–H). This would help ensure that the hammerhead shark and non-blacknose SCS fisheries are not limited by the smaller regional quotas. All quota transfers would be announced in a **Federal Register** notice. These measures would have direct, minor beneficial ecological impacts because they provide additional protection against exceeding the scientifically-determined total allowable catch for each species and complex.

The quota linkages proposed under this Alternative Suite could have short- and long-term direct moderate adverse socioeconomic impacts. Quota linkages are explicitly designed to concurrently close multiple shark quotas, regardless of whether all the linked quotas are filled. This provides protection against incidental capture for species for which the quota has been reached, but it can also preclude fishermen from harvesting the entirety of each of the linked quotas. A quantitative analysis of the economic impact is not possible without comparing the rates of hammerhead shark, blacktip shark, and aggregated LCS catch, and without knowing the extent to which fishermen can avoid hammerhead sharks. However, a qualitative analysis can provide insight on possible adverse socioeconomic impacts. Under Preferred Alternative Suite A2, both the hammerhead shark and aggregated LCS quotas would close when landings of either reaches or is expected to reach 80 percent of the quota. If hammerhead shark landings reach 80 percent of the hammerhead shark quota, the aggregated LCS fishery would close, regardless of what portion of the aggregated LCS quota has been filled. If the entire Aggregate LCS quota has not been harvested, the fishery would not realize the full level of revenues possible under the established quota. A similar situation could occur in the Gulf of Mexico under Preferred Alternative Suite A2 where both the hammerhead shark and blacktip shark quotas would be linked to the aggregated LCS quota.

The blacknose shark and non-blacknose SCS socioeconomic impacts would be the same as the aggregated LCS since there would be similar scenarios with the quota linkage by species and region. In addition, we would allow inseason quota transfer between non-blacknose SCS regions. This would have minor beneficial socioeconomic impacts for this fishery as the non-blacknose SCS quota would not be the limiting factor. Consequently, the quota linkages proposed under this Alternative Suite could have short- and long-term direct moderate adverse socioeconomic impacts.

7. Recreational Measures

Under Preferred Alternative Suite A2, the minimum recreational size limit for sharks would increase from 54 to 96 inches fork length (FL) (8 ft or 244 cm). Currently, the recreational size limit for authorized shark species (except for Atlantic sharpnose and bonnethead sharks) is 54-inches FL. This minimum size was established based on the size at maturity of sandbar sharks. This new size limit is based on the best available scientific information, which reported female dusky shark size-at-maturity to be 235 cm fork length (approximately 93 inches). Since 93 inches does not equate to a round number of feet (93 inches = 7.75 feet), we are proposing to round up the minimum size to the whole foot, resulting in a proposed minimum size of 96 inches FL (8 feet). Dusky sharks have been prohibited in the recreational fishery since 1999, but are still landed due to misidentification issues. To address the misidentification issues, we would increase outreach to the recreational community to increase awareness of current regulations and shark identification, specifically for dusky and sandbar sharks which are prohibited, and for the three species of hammerhead sharks (great, scalloped, and smooth).

This increased recreational size limit will also help reduce blacknose, sandbar, and scalloped hammerhead shark catches because fishermen usually do not catch sharks that large frequently. Blacknose shark retention in the recreational fishery effectively would be eliminated with a 96-inch FL recreational size limit. Blacknose sharks rarely reach a size greater than the current Federal minimum size of 54-inch FL; therefore, the 96-inch FL size limit creates a *de facto* retention prohibition of blacknose sharks in Federal waters. In the draft Amendment 3, we proposed prohibiting retention of blacknose sharks in the recreational fishery. During the public comment period for Amendment 3, we received comments that if we prohibited the retention of blacknose sharks in Federal waters, then states would also have to implement the prohibition in state waters. The comments also stated that because some states have a well-managed blacknose recreational fishery and conservation measures in place to adequately protect this species in state waters, prohibiting their retention is unnecessary. However, since we did not prohibit blacknose sharks in Amendment 3, some states continued to allow recreational landings of blacknose sharks below the 54-inch FL in state waters. Overfishing continued to occur on the Atlantic blacknose shark stock based on the recent assessment, and we need to reduce the recreational mortality of blacknose sharks to meet rebuilding target for the established total allowable catch.

Like dusky sharks, recreational fishermen are not allowed to retain sandbar sharks, but fishermen still land them due to misidentification. The

larger size limit would reduce recreational catches since sandbar sharks do not grow to 96 inches FL. We plan to conduct outreach to the recreational community to better inform anglers of prohibited species as well as identifying dusky and sandbar sharks. This increase in minimum size would also reduce scalloped hammerhead sharks catches in the recreational fishery and help rebuild this overfished stock. Female scalloped hammerhead sharks reach maturity at approximately 78-inches FL. The larger recreational size limit would limit the retention of scalloped hammerhead sharks to mature individuals and help rebuild the stock faster consistent with rebuilding goals. We are currently working on an identification guide for all of the prohibited shark species to help with this outreach. This identification guide would complement the existing guide of shark species that can be landed by focusing on the species that cannot be landed.

In addition to the change in minimum size, we would require mandatory reporting of all hammerhead sharks landed recreationally through the non-tournament reporting system. The non-tournament reporting system was established to track the trips that released (alive or dead) or retained bluefin tuna, blue marlin, white marlin, roundscale spearfish, longbill spearfish, sailfish, and swordfish. Fishermen can report online or over the phone. Recreational fishermen who land hammerhead sharks would need to submit similar information, thus providing us more timely and accurate estimates of recreational hammerhead landings.

This alternative would have short- and long-term moderate, beneficial ecological impacts on dusky, sandbar, scalloped hammerhead, and blacknose sharks. Increasing the size limit, providing outreach material, and establishing mandatory reporting for hammerhead sharks should reduce recreational catches and provide us better and timelier estimates of recreational ladings of hammerhead sharks. There would be beneficial indirect ecological impacts since increasing the size limit would reduce the recreational catch of other shark species that do not grow larger than 96 inches FL. Overall, the reductions in recreational mortality along with the commercial management measures are expected to help rebuild the overfished stocks. The increased recreational size limit would cause neutral direct and indirect impacts on essential fish habitat, predator/prey relationships, and protected resources in the short- and long-term.

This alternative would result in direct minor adverse socioeconomic impacts for recreational fishermen in the short-term due to the reduced incentive to recreationally fish for sharks. However, management measures to address overfishing of dusky, sandbar, scalloped hammerhead, and blacknose sharks are needed based on the stock assessments. Tournaments awarding points for sharks are unlikely to be impacted by implementing the 96 inch FL minimum size. Tournament participants typically target larger sharks and the sharks many tournaments target, such as shortfin mako, blue, and thresher, grow to larger than 96 inches FL. These measures could change the way that the recreational shark fishery operates, which could cause short-term moderate adverse direct socioeconomic impacts. Implementation of management measures that would significantly alter the way charter vessels operate, or reduce opportunity and demand for recreational shark fishing, could create adverse socioeconomic impacts. In the long-term, increased recreational fisheries opportunities may result as these measures end overfishing and overfished stocks rebuild.

B. Summary of the Other Alternative Suites Considered

In addition to Preferred Alternative Suite A2, we considered four other Alternative Suites ranging from status quo or no action (Alternative Suite A1) to closing all shark fisheries (Alternative Suite A5). Alternative Suite A1 is the No Action Alternative. Under this alternative, we would maintain current total allowable catches, commercial quotas, and recreational measures in all shark fisheries. Choosing this alternative would not end overfishing or rebuild overfished stocks. Taken as a whole, this alternative would have direct moderate, adverse ecological impacts in the short-term since there would be no change to harvest levels in the Atlantic shark fisheries and overfishing of scalloped hammerhead and blacknose sharks would continue. This alternative could result in direct significant, adverse long-term ecological impacts for certain LCS and SCS, since this alternative would result in continued overfishing of scalloped hammerhead, dusky, and Atlantic blacknose sharks, which would lead to further stock decline of these species, and could increase fishing pressure on the other LCS and SCS species as fishermen shift their efforts to other species to make up for the reduced catches. This alternative would have indirect neutral ecological impacts in the short-term since no action would be taken, but may result in moderate, adverse indirect impacts over time due to the increasing decline of the scalloped hammerhead, dusky, and Atlantic blacknose shark populations. Alternative Suite A1 would cause neutral direct and indirect impacts on essential fish habitat, predator/prey relationships, and protected resources in the short- and long-term no action would be taken relative to the status quo.

Alternative Suite A1 would likely have direct neutral social and economic impacts in the short-term because the fisheries would continue to operate as they currently do. In the long-term, it could cause direct moderate adverse social and economic impacts because overfished stocks would not rebuild and catches would decline. The decline in catches would lead to a moderate reduction in sales and revenue. Additionally, Alternative Suite A1 would likely have neutral indirect short-term socioeconomic impacts. Dealers and supporting businesses, such as bait and tackle suppliers, would be unlikely to experience any impacts in the short-term. In the long-term, catches of the overfished stocks would decline, and minor negative socioeconomic impacts would occur as dealers and supporting businesses would have to offset reduced revenues from shark landings. For these reasons, we do not prefer this Alternative Suite at this time.

Alternative Suite A3 is similar to the proposed Preferred Alternative Suite A2 except we would not create regional hammerhead shark and non-blacknose SCS quotas, there would be no quota linkage for the shark fisheries, and there would be an increase in the recreational minimum size limit for only hammerhead sharks. Specifically, Alternative Suite A3 would establish new species complexes by regions, adjust LCS and SCS quotas, prohibit retention of commercial blacknose sharks in the Gulf of Mexico, and increase the hammerhead shark minimum recreational size to 78″ FL. This alternative would remove hammerhead sharks from the non-sandbar LCS complex to form a separate non-regional quota of 52.2 mt dw, while non-blacknose SCS regulations and quota would remain the same (221.6 mt dw). This alternative would also create regional quotas for blacknose sharks as well as remove blacktip sharks from the Gulf of Mexico non-sandbar LCS complex. Additionally, this alternative would reconfigure and rename the species remaining in the non-sandbar LCS complex as the ''aggregated LCS'' in both the Atlantic and Gulf of Mexico

regions. The new Gulf of Mexico base quotas would be as follows: blacktip sharks—380.7 mt dw; and non-sandbar LCS—157.3 mt dw. The new aggregated LCS complex in the Gulf of Mexico region would consist of bull, lemon, nurse, spinner, silky, and tiger sharks. In the Atlantic region, base quotas would be as follows: Non-sandbar LCS—168.2 mt dw; and blacknose sharks—18 mt dw. The new aggregated LCS complex in the Atlantic would consist of blacktip, bull, lemon, nurse, spinner, silky, and tiger sharks. We would need to prohibit the retention of blacknose sharks in the Gulf of Mexico region so we can meet the rebuilding plan for this species.

When taken as a whole, Alternative Suite A3 would have direct moderate, beneficial ecological impacts in the short-term since changes to the Atlantic shark fisheries would help rebuild scalloped hammerhead and blacknose shark stocks, but long-term impacts would be minor and adverse because the absence of quota linkages could allow overfishing to continue through dead discards in other fisheries. The indirect ecological impacts would be neutral to essential fish habitat, predator/prey relationships, or protected resources because fishing pressure is expected to remain near current levels. Establishing a Gulf of Mexico blacktip shark total allowable catch at a level 30 percent greater than the total allowable catch calculated in Alternative Suite 2 could increase shark fishing effort and, as described above, might have adverse ecological impacts on other shark stocks and other species. It is also uncertain what impact the increase would have on the Gulf of Mexico shark stock because there is high degree of uncertainty associated with the projections, particularly since these projections were not peer reviewed as part of the Southeast Data, Assessment and Review process.

Additionally, Alternative Suite A3 would likely have direct short- and long-term moderate beneficial socioeconomic impacts, mainly resulting from the increase in Gulf of Mexico blacktip quota. Adverse impacts would mostly affect fishermen catching hammerhead and blacknose sharks. The hammerhead shark quota would be based on the scalloped hammerhead shark total allowable catch and would reduce all hammerhead shark landings. The blacknose shark quota in the Atlantic would be reduced, while the Gulf of Mexico blacknose shark retention would be prohibited to meet the total allowable catch. Recreational management measures would affect fishermen who catch hammerhead sharks since the increased size limit would result in more hammerhead sharks having to be released, and blacknose sharks would be prohibited under this Alternative Suite. Neutral socioeconomic impacts are expected for fishermen targeting the aggregated LCS and non-blacknose SCS complexes since these management measures would maintain status quo in these fisheries. Furthermore, the lack of quota linkages in Alternative Suite A3 would allow fishermen to fully harvest all of the quotas. This alternative would likely have indirect short-term minor adverse socioeconomic impacts. The measures in this Alternative Suite adjust quotas based on new scientific information and would impact shark landings. Consequently, dealers and supporting businesses such as bait and tackle suppliers may experience minor adverse impacts in the short-term, but since they do not rely solely on the shark fishery and buy from and sell to a variety of fisheries, the impacts are expected to be neutral in the long-term. The changes to quotas would impact fishermen retaining sharks, but the changes are small enough that dealers and supporting businesses are unlikely to experience impacts from this Alternative Suite. While Alternative Suite A3 might have more beneficial direct socioeconomic impacts than the proposed Preferred Alternative Suite A2, the ecological impacts would be adverse and would not achieve the rebuilding plan targets for these stocks.

Indirect short- and long-term moderate beneficial socioeconomic impacts would likely result from this Alternative Suite's actions. The measures in this Alternative Suite adjust quotas based on new scientific information and would impact shark landings. Consequently, the increase in the commercial Gulf of Mexico blacktip shark quota could result in short- and long-term beneficial economic impacts for dealers and supporting businesses such as bait and tackle suppliers. The other changes to quotas (e.g., scalloped hammerhead, blacknose) would impact fishermen retaining sharks, but the changes are small enough that dealers and supporting businesses are unlikely to experience impacts from this alternative suite. This increase in the Gulf of Mexico blacktip quota could lead to increased revenues of $314,376 when compared to the quota calculated in Alternative Suite A2. Because of the uncertainty in the projections and because this Alternative Suite does not have quota linkages that would prevent quota exceedances from occurring (and thus would affect the ability to end overfishing and rebuild the species), we do not prefer this Alternative Suite at this time.

We also considered Alternative Suite A4. This Alternative Suite is different than the Proposed Alternative Suite A2 because it would establish regional scalloped hammerhead shark quotas, establish regional aggregated LCS quotas based on the largest landings, divide the non-blacknose SCS quota in half for each region, and establish species-specific recreational shark quotas. Specifically, Alternative Suite A4 would establish new species complexes by regions, adjust LCS and SCS quotas, prohibit retention of commercial blacknose sharks in the Gulf of Mexico region, link appropriate quotas, and establish species-specific recreational shark quotas. The alternative would remove scalloped hammerhead sharks from the non-sandbar LCS complex to form separate regional quotas, and create regional quotas for blacknose and non-blacknose SCS. Also, blacktip sharks would be removed from the Gulf of Mexico non-sandbar LCS complex and the non-sandbar LCS complex would be renamed ''aggregated LCS'' in both the Atlantic and Gulf of Mexico. The new Gulf of Mexico base quotas would be as follows: scalloped hammerhead sharks 24.4 mt dw; blacktip sharks 1,992.6 mt dw; non-sandbar LCS 185.2 mt dw; and non-blacknose SCS 110.8 mt dw. The new aggregated LCS complex in the Gulf of Mexico region would consist of bull, lemon, nurse, spinner, silky, and tiger sharks. In the Atlantic region, base quotas would be as follows: scalloped hammerhead sharks 27.8 mt dw; non-sandbar LCS 180.1 mt dw; blacknose sharks 18 mt dw; and non-blacknose SCS 110.8 mt dw. The new aggregated LCS in the Atlantic region would consist of blacktip, bull, lemon, nurse, spinner, silky, and tiger sharks. This Alternative Suite would also link the species within regional LCS and SCS quotas to prevent overfishing of one species while fishing for another species/group continues. Under this Alternative Suite, we would prohibit the retention of blacknose sharks in the Gulf of Mexico to end overfishing and meet the rebuilding plan target for this species.

Considering all the ecological impacts for each species, complex, or issue as discussed above, when taken as a whole, Alternative Suite A4 would likely have direct short- and long-term minor beneficial ecological impacts. Overfishing on scalloped hammerhead and Atlantic blacknose sharks would be addressed, and the rebuilding plans for these stocks would be implemented.

However, only scalloped hammerhead sharks would be included under the scalloped hammerhead total allowable catch, rather than all three large hammerhead species as in Alternative Suites A2 and A3, possibly leading to exceedances of scalloped hammerhead total allowable catch due to capture and retention of scalloped hammerheads misidentified as other hammerhead species. Additionally, the Atlantic non-blacknose SCS commercial quota would be reduced. Indirect short- and long-term ecological impacts resulting from any of the Alternative Suite A4 actions would likely be neutral. Similarly, all impacts on protected resources would be neutral as well because the measures in Alternative Suite A4 would be unlikely to significantly alter effort in the Atlantic or Gulf of Mexico shark fisheries. Therefore, additional impacts to essential fish habitat, predator/prey relationships, or protected resources are unlikely. Although this alternative suite would allow for the highest Gulf of Mexico blacktip shark commercial quota, it is based on base model projections, which the NMFS scientists who participated in the stock assessment felt had a high degree of uncertainty, and, because these projections were developed outside of the standard Southeast Data, Assessment and Review process and were not been peer reviewed, they could not conclude with certainty that such a high level of catch would not result in overfishing. Therefore, given the uncertainty in the results of the projections at this level of catch, this alternative suite could lead to long-term adverse ecological impacts due to overfishing if the projections were overly optimistic.

Alternative Suite A4 would likely have direct short- and long-term minor adverse socioeconomic impacts. These impacts would mostly affect fishermen catching blacknose sharks. The blacknose shark quota in the Atlantic would be reduced, while the Gulf of Mexico blacknose shark retention would be prohibited to prevent exceedance of the total allowable catch. Recreational management measures would affect fishermen who retain sharks since we would implement species- and complex-specific quotas for the recreational fishery. Neutral socioeconomic impacts are expected for recreational and commercial fishermen targeting scalloped hammerhead sharks, aggregated LCS, and non-blacknose SCS as detailed in those sections of this Alternative Suite. While this alternative suite might have minor adverse socioeconomic impacts, there is the potential for more adverse socioeconomic impacts if quotas are exceeded in the future. Although this alternative suite would allow for the highest Gulf of Mexico blacktip shark commercial quota, as described above, the stock assessment scientists could not conclude with certainty that such a high level of catch would not result in overfishing. In addition to the uncertainty in the model, the blacktip shark quota proposed under this alternative suite could lead to increased bycatch of other species due to increased fishing effort.

Indirect short-term minor adverse socioeconomic impacts would likely result from this Alternative Suite's actions. The measures in this Alternative Suite adjust quotas based on new scientific information and would impact shark landings. Consequently, dealers and supporting businesses such as bait and tackle suppliers may experience minor adverse impacts in the short-term, but since they do not rely solely on the shark fishery and buy from and sell to a variety of fisheries, the impacts are expected to be neutral in the long-term. The changes to quotas would impact fishermen retaining sharks, but the changes are small enough that dealers and supporting businesses are unlikely to experience impacts from this Alternative Suite. In summary, this Alternative Suite is less likely to end overfishing on scalloped hammerhead due to catch and misidentification as other hammerheads and because of the administrative difficulties in establishing and monitoring numerous hammerhead species-specific recreational quotas. Additionally, this Alternative Suite may not prevent overfishing on Gulf of Mexico blacktip sharks and could increase fishing mortality of other sharks as bycatch. Furthermore, while this Alternative Suite might have minor adverse socioeconomic impacts, there is the potential for more adverse socioeconomic impacts if quotas are exceeded and stocks are prevented from rebuilding it may become necessary to implement smaller quotas and more strict retention limits. For all these reasons, and because of the potential for additional adverse socioeconomic impacts if quotas are exceeded, we do not prefer this Alternative Suite at this time.

The last Alternative Suite we considered in this section is Alternative Suite A5. Under this Alternative Suite, all commercial and recreational shark fisheries, except spiny dogfish, in all regions (the Atlantic Ocean including the Gulf of Mexico and Caribbean Sea) would close. As a whole, Alternative Suite A5 would have significant beneficial ecological impacts in the short- and long-term. Overfishing on scalloped hammerhead and Atlantic blacknose sharks would end, and rebuilding plan targets would be achieved. By preventing the landing of any sharks, except spiny dogfish, in the Atlantic Ocean, including the Gulf of Mexico and Caribbean Sea, we would affect not only the species that are overfished, but all other shark species. This Alternative Suite would cause an increase in the number of dead discards of sharks that are caught as bycatch in other fisheries because none of those sharks could be legally landed. Also, closing the recreational shark fishery effectively would create a catch and release requirement for all Atlantic sharks, except spiny dogfish, in the recreational fishery and all tournaments that have Atlantic shark prize categories. Indirect short- and long-term ecological impacts resulting from any of the Alternative Suite A5 actions would likely be significantly beneficial. These measures could eliminate effort in the Atlantic Ocean, including the Gulf of Mexico and Caribbean Sea, shark fisheries; therefore additional impacts to essential fish habitat, predator/prey relationships, or protected resources are unlikely. This Alternative Suite would likely have direct short- and long-term significant adverse socioeconomic impacts because all recreational and commercial shark fishing would be prohibited. Indirect short- and long-term socioeconomic impacts resulting from this Alternative Suite's actions would likely be moderately adverse. The measures in this Alternative Suite would shut down the commercial and recreational shark fisheries, and dealers and supporting businesses such as bait and tackle suppliers would likely be adversely impacted due to decreased shark catches and sales. Because other alternatives should meet the objectives of this Amendment with less significant adverse socioeconomic impacts, and because this Alternative Suite would curtail data collection for future stock assessments, we do not prefer this Alternative Suite at this time.

Summary of the Alternatives Considered Regarding Pelagic and Bottom Longline Effort Modifications/ Controls

Dusky sharks are overfished and continue to experience overfishing, even though they have been a prohibited shark species since 2000. Therefore, we are considering a number of individually-assessed alternatives that would address pelagic and bottom longline fishing effort to further reduce

interactions and fishing mortality of dusky sharks, especially since dusky sharks tend to have high at-vessel mortality rates on commercial fishing gear. Although these alternatives are mainly targeted at dusky sharks, they should also help end overfishing on other shark species including scalloped hammerhead sharks and help rebuild other species of sharks such as scalloped hammerhead and sandbar sharks. We chose to consider the alternatives described in this section because they meet the objectives of this rulemaking consistent with the Magnuson-Stevens Act, the 2006 Consolidated HMS FMP and its amendments, and other requirements.

Some of the alternatives are based on current time/area closures while others would develop additional time/area closures. The first time/area closure in the HMS regulations was implemented in the 1999 FMP with the Northeastern U.S. closure off New Jersey in June to reduce bluefin tuna discards. Since then, additional closures have been implemented by us and the Regional Fishery Management Councils that affect HMS fishermen. The goals of all of the HMS time/area closures are to: (1) Maximize the reduction in bycatch; (2) minimize the effects of any reduction in the target catch; and (3) consider impacts on non-target HMS (e.g., bluefin tuna, undersized swordfish) to minimize or reduce non-target catch levels, to the extent practicable.

In looking at time/area closures, we analyzed various fishing data using two different methodologies. One methodology is to assume redistribution of effort. Under this methodology, fishing effort that occurred in an area considered for closure is assumed to move into areas that remain open. In other words, we assumed all fishermen would continue fishing in an open area for the duration of the closure or would sell their permits to other fishermen who would continue fishing in the open areas. A second methodology is to assume no redistribution of effort. Under this methodology, fishing effort that occurred in an area considered for closure is assumed to stop. In other words, we assumed all fishermen would stop fishing entirely for the duration of the closure rather than fish in an open area. In reality, the impact of any particular closure or group of closures is likely to be somewhere between the results of these two methodologies as some fishermen will continue fishing while other fishermen will move onto different species or to other occupations.

C. Summary of the Proposed Individual Alternatives

We are proposing three Alternatives (Alternatives B3, B5, and B6) that would modify pelagic and bottom longline fishing effort. The first alternative is Alternative B3. Alternative B3 would identify discrete areas in space and time where high dusky shark interactions occurred (according to HMS logbook data from 2008–2010), and would prohibit pelagic longline fishing in these dusky shark ''hotspot'' areas by all U.S. flagged-vessels permitted to fish for HMS. ''Hotspot'' areas were identified by using Geographic Information System software to plot the location and timing of dusky shark interactions based on latitude and longitude coordinates of individual sets made with pelagic longline gear between 2008 and 2010. In order to maximize the efficacy of hotspot closed areas, areas were selected based on the number and concentration of interactions and the ability to delineate a simple polygon that would encapsulate these interactions. Discrete, identifiable areas with fishing effort that contributed to greater than 10 dusky shark interactions over the 3-year period were included for analysis. Areas with fewer than 10 dusky shark interactions over the 3-year period were not included because they would not make a significant contribution to reducing dusky shark interactions. Furthermore, odd-shaped or excessively large polygons were avoided in favor of more discrete areas for shorter periods of time to avoid significant disruptions to fishing activity while ensuring dusky shark interactions are reduced. Using this methodology, a total of eight hotspot areas are proposed to be closed to pelagic longline fishing.

In draft Amendment 5, the eight hotspot closed areas are subdivided into alternatives B3a through B3h. While draft Amendment 5 looks at the impact of each individual hotspot closed area, all of these hotspot closed areas are included and proposed under Alternative B3 because their cumulative reduction in dusky shark interactions would be necessary to assist in reaching reductions in fishing mortality recommended by the stock assessment. A summary of the cumulative impact of all eight hotspot closed areas is included below. For more details regarding the impact of each individual hotspot closed area, please see draft Amendment 5.

The primary goal of the proposed hotspot closed areas for pelagic longline gear is to maximize reductions in interactions with dusky sharks while minimizing impacts to target species or other bycatch, including protected resources. By limiting the size and duration of these hotspot closed areas, the Agency is attempting to minimize any negative ecological impacts that could occur if fishing effort redistributes to adjacent areas. The cumulative impact of combining the eight preferred hotspot closed areas for pelagic longline gear under Alternative B3 and assuming redistribution of fishing effort would reduce the number of dusky shark interactions by 854 dusky sharks. This represents a 49-percent reduction in the number of dusky shark interactions compared to current levels. If fishing effort were not redistributed, dusky shark interactions would be reduced by 55-percent. Reducing dusky shark interactions to this extent would result in direct, moderate, beneficial long-term ecological benefits for dusky shark populations consistent with stock assessment recommendations to reduce fishing mortality by 62 percent in all fisheries. Short-term, moderate beneficial impacts for dusky sharks are expected as well; however, it would take time to see any impacts on the dusky shark population.

The ecological impacts on 34 HMS and non-HMS target species, prohibited species, and bycatch depends on the species and whether or not interactions increase or decrease after redistribution of fishing effort as a result of the eight closures. See draft Amendment 5 for tables summarizing the impacts of the proposed closure for these individual species, both with and without redistribution of fishing effort. Generally, we expect direct, moderate, beneficial, short- and long-term ecological impacts for protected sea turtles because after redistributing fishing effort to adjacent open areas, interactions with sea turtles would decrease by three leatherback and 23 loggerhead sea turtles. Given the moderate direct impacts of most species, with the exception of dusky sharks, the indirect impacts of Alternative B3 on ecosystem function and predator/prey relationships are anticipated to be neutral in the short- and long-term.

These pelagic longline hotspot closed areas are being considered along with other measures that would affect the number of dusky shark interactions in bottom longline and recreational fisheries, although the alternatives are being assessed individually. While Alternative B3 may not reduce the number of dusky shark interactions in the pelagic longline fishery by the 62-percent target outlined in the 2009 stock assessment, measures proposed for the bottom longline and recreational fisheries may reduce interactions by

more than 62-percent. Considered together, the target reductions for dusky shark interactions outlined in the stock assessment would be achieved. Furthermore, in May of 2011, the Agency implemented a requirement that pelagic longline vessels in the Gulf of Mexico use weak hooks in order to minimize bycatch of large, spawning bluefin tuna on the spawning grounds. Based on research conducted by the Southeast Fisheries Science Center, Mississippi Laboratory, two dusky sharks were caught on experimental weak hooks and four dusky sharks were caught on the standard (non-weak) hooks. This requirement has direct ecological benefits for dusky shark populations in the Gulf of Mexico, and is also included in the reduction targets for dusky sharks to end overfishing and rebuild the stock. Between 2008 and 2010, logbook reports indicate that 133 dusky sharks were discarded in the Gulf of Mexico. The number of dusky shark discards is expected to decrease with the implementation of weak hooks because larger dusky sharks may be able to straighten the hook.

Implementing the eight time/area hotspot closed areas included in Alternative B3 would result in direct, moderate, adverse socioeconomic impacts in the short-term on participants in the pelagic longline fishery. While these impacts may become less adverse in the long-term as the pelagic longline fleet adjusts their fishing activities after implementation of the closures, the time/area closures would result in reduced fishing opportunities in the near-term. In addition to direct impacts to vessels owners, operators, and crew members, these time/area closures would have minor, adverse indirect impacts in the short- and long-term on fish dealers, processors, bait/gear suppliers, and other shore-based businesses impacted by reduced fishing opportunities for pelagic longline vessel owners in the vicinity of the proposed closures. The closures may result in indirect social impacts ranging from disruption of local fishing communities to relocation of vessels and homeports, loss of crew, increased time at sea, and other social hardships stemming from further reducing fishing opportunities in the vicinity of the respective closures. Overall, the proposed time/area closures in Alternative B3 would reduce annual revenues by $385,423 per year and would impact 72 unique vessels that have fished in these hotspot closed areas between 2008 and 2010.

In addition to Alternative B3, we are also proposing Alternative B5, which would modify the timing of the existing mid-Atlantic shark time/area closure from January 1 through July 31 to December 15 through July 15. In other words, this alternative would modify the timing of the existing mid-Atlantic shark time/area closure by two weeks. The Atlantic States Marine Fisheries Commission Shark Plan closes state waters in Virginia, Maryland, Delaware, and New Jersey from May 15 through July 15 every year to protect nursery areas during pupping season. The purpose of Alternative B5 is to ensure that the end date of the closure coincides with the season opening dates in the Atlantic States Marine Fisheries Commission Shark Plan (i.e., July 15) while maintaining the total length of the closure, and to address requests from the State of North Carolina to revisit this time/area closure in regards to impacts to that one state. The State of North Carolina has made several requests, both formally and informally, since 2008 for the Agency to reconsider the timing of the end date of the mid Atlantic Shark Closed Area because North Carolina feels the current opening of July 31 disadvantages its fishermen, contrary to National Standard 4, compared to other states in the region. Thus, North Carolina would like to have Federal waters available to its fishermen on July 15, consistent with the ASMFC Shark Plan and other states near it. These comments have been received during the public comment period for actions that affect the shark fishery. The dimensions of the closure would remain the same and only the start and end dates of the closure would change.

The mid-Atlantic closed area was implemented to reduce bycatch of dusky sharks, along with neonate and juvenile sandbar sharks. Alternative B5 would result in direct and indirect, neutral, short- and long-term ecological benefits for both dusky and sandbar shark stocks as the closure area timing would be shifted by 15 days and should not have a significant impact on fishing effort with bottom longline gear in this area. Fishing effort for sharks in this area would continue to be impacted by the timing of the Federal shark season for LCS, which in recent years, has not opened until July. This alternative would not affect the rebuilding plans for dusky and sandbar sharks and would have neutral impacts on protected resources because the duration of the closure is not affected, while the timing of the closure is affected (15 days). Direct, neutral, short- and long-term ecological impacts for protected resources are expected. Given the neutral impacts on most species, the indirect impacts of Alternative B5 on ecosystem function and predator/prey relationships are also anticipated to be neutral in the short- and long-term.

Alternative B5 is anticipated to have direct, minor, beneficial short- and long-term socioeconomic impacts because fishermen in North Carolina would have access to adjacent Federal waters, consistent with other shark fisheries in other states and the Atlantic States Marine Fisheries Commission Shark Plan. In the short-term, revenue gain would be minor for the 17 directed shark permit and 12 incidental shark permit holders along with state-water fishermen that might normally fish in the mid-Atlantic closed area. These North Carolina fishermen would be able to fish sooner than in previous years, but the adjustment to the starting date of the closure would have minor impacts. In the past 4 years, the non-sandbar LCS fishery, which primarily uses bottom longline gear, has only been open beyond December 15 once. This occurred in 2008 when the fishery opened in late July under the current fishing regulations. Since then, the non-sandbar LCS fishery has closed before December 15. Over the long-term, the economic impact would be minor, as the fishermen are likely to adapt to the new regulations.

Alternative B5 is preferred because it would result in beneficial economic impacts and would not have adverse ecological impacts. This alternative was included in response to several requests from the State of North Carolina for the Agency to reconsider the timing of the end date of the mid-Atlantic Shark Closed Area because North Carolina feels the current opening of July 31 disadvantages its fishermen, contrary to National Standard 4, compared to other states in the region. Thus, North Carolina would like to have Federal waters available to its fishermen on July 15, consistent with the ASMFC Shark Plan and other states near it. These comments have been received in writing during the public comment period for actions that affect the shark fishery. The dimensions of the closure would remain the same and only the start and end dates of the closure would change. It is not expected to have any impacts to the rebuilding plans for dusky or sandbar sharks because overall fishing effort (and fishing mortality) would still be regulated by quotas and retention limits for target species.

The last effort-control proposed alternative is alternative B6. This alternative would modify the existing bottom longline shark research fishery to reduce dusky shark interactions by 62 percent, at a minimum, while still allowing for shark biological and catch

rate data to be collected. In 2008, we implemented a shark research fishery that allowed fishermen to target and retain sandbar sharks to maintain the commercial fishery time series and to obtain biological information for stock assessments. Fishermen participating in the shark research fishery are generally targeting sandbar sharks, and can catch dusky sharks as bycatch. A total of 450 dusky sharks were caught during shark research fishery trips from 2008 through 2011 with 263 being discarded dead. We need to reduce the bycatch of dusky sharks in the shark research fishery to ensure that the dusky rebuilding plan target is achieved. Measures considered to reduce dusky shark interactions, include, but are not limited to: Limitations on soak time, limits on the number of hooks deployed per set, prohibiting participants from deploying bottom longline gear at times and in areas where elevated levels of dusky shark interactions have been observed, and/or stopping the shark research fishery, or a specific vessel in the fishery, for the year if a certain number of dusky shark interactions is reached. Reduction in dusky shark interactions may need to be greater than 62 percent in the shark research fishery if reductions in other fisheries (i.e., pelagic longline and recreational) do not reach their targets.

There are a several options we could use to reduce dusky shark mortality in this fishery. Based on preliminary data, we would have to limit soak times to approximately 4 hours to reduce dusky shark mortality by 50 percent. Another way to reduce dusky shark mortality would be to limit the number of hooks deployed per set. Decreasing the number of hooks and limiting the soak time would decrease the mortality and possible interaction with dusky sharks. In addition, we have noticed certain areas where a large number of dusky sharks have been caught (i.e., the mid-Atlantic shark bottom longline closed area). Fishing in these locations resulted in 71 percent of the dusky shark dead discards from 2008 through 2011. We could prohibit participants from deploying bottom longline gear at times and/or in areas where elevated levels of dusky shark interactions have been observed. Another potential way to decrease dead discards of dusky sharks would be to implement a bycatch cap for dusky shark interactions in the shark research fishery. The potential ramifications of a dusky shark bycatch cap could limit the fishing opportunities to collect data for the shark research fishery if the bycatch cap is reached.

Alternative B6 would have direct, moderate, beneficial ecological impacts for dusky sharks in the short- and long-term. Indirect, minor beneficial impacts would be expected as a result of limiting soak time because of increased post-release survival rates of sharks, and teleosts in the short- and long-term. The potential changes in the shark research fishery are targeted to reduce dusky shark dead discards, but the possible modifications would benefit all sharks. Limiting soak time, decreasing the number of hooks per set, restricting fishing areas, or reducing overall fishing effort by restricting participation in the research fishery would have minor, indirect beneficial ecological impacts. However, extensive modifications to the shark research fishery could become so restricting in the view of fishery participants that participation decreases and valuable data from the shark research fishery could be lost. Direct, neutral, short- and long-term ecological impacts for protected resources are expected. Given the neutral to minor beneficial ecological impacts on most species, with the exception of dusky sharks, the indirect impacts of Alternative B6 on ecosystem function and predator/prey relationships are also anticipated to be neutral in the short- and long-term.

Alternative B6 could result in direct, minor adverse socioeconomic impacts in the short-term for fishermen participating in the shark research fishery because of additional restrictions placed on participating vessels. Long-term impacts are not anticipated because the pool of applicants and those selected for participation in the shark research fishery changes on an annual basis. Fishermen participating in the research fishery are targeting sandbar sharks; however, dusky sharks are often caught as bycatch when targeting sandbar sharks. These measures could change the way that the shark research fishery operates, which could result in direct, short-term, minor adverse socioeconomic impacts. However, it is anticipated that vessels will continue to want to participate in the shark research fishery because these vessels have the exclusive privilege of being able to target and harvest sandbar sharks, a high-fin-value species. There is a possibility that these measures would help sandbar sharks rebuild more quickly and increase commercial fisheries opportunities in the future. Indirect impacts in the short-term would be minor and adverse due to reduced revenues for fish dealers and other support industries that may occur if fishing effort is curtailed in the shark research fishery.

An objective of this rulemaking is to reduce fishing mortality of dusky sharks. Alternative B6 is preferred because it would result in beneficial ecological impacts by reducing the number of dusky shark interactions that occur on bottom longline gear. Since the majority of the interactions with dusky sharks and bottom longline gear occur in the shark research fishery, it is important that modifications in this fishery that reduce interactions with dusky sharks by vessels targeting sandbar sharks. Economic impacts are expected to be minor and adverse as a result of reduced soak time, limiting the number of hooks deployed per set, or preventing fishermen from fishing in areas with elevated densities of sandbar sharks in order to reduce the potential for dusky shark interactions.

D. Summary of the Other Individual Alternatives Considered

In addition to proposed alternatives B3, B5, and B6, we considered four other alternatives, including Alternative B1, the status quo or No Action Alternative; Alternative B2, which would extend the existing Charleston Bump time/area closure through May (Feb. 1 through May 31) and prohibit the use of pelagic longline gear by all U.S. flagged-vessels permitted to fish for HMS in this area; Alternative B4, which would implement bycatch caps on dusky shark interactions in hotspot areas identified for closure in Alternative B3; and Alternative B7, which would prohibit the use of pelagic and bottom longline gear in HMS fisheries in all areas to enhance rebuilding of overfished dusky sharks, as well as other overfished shark species (sharks would still be able to be retained recreationally and commercially with gillnets).

Alternative B1, the No Action Alternative, would maintain all existing time/area closures for pelagic and bottom longline fishermen. The pelagic longline fishery for Atlantic HMS primarily targets swordfish, yellowfin tuna, and bigeye tuna in various areas and seasons. Secondary target species include dolphin, albacore tuna, and, to a lesser degree, sharks, among other species. Although this gear can be modified (e.g., depth of set, hook type, hook size, bait, etc.) to target swordfish, tunas, or sharks, it is generally a multi-species fishery. These vessel operators are opportunistic, switching gear style and making subtle changes to target the best available economic opportunity of each individual trip. Pelagic longline gear sometimes attracts and hooks non-target finfish with little or no commercial value, as well as species that cannot be retained by commercial fishermen due to regulations, such as

billfish. Pelagic longline gear may also interact with protected species such as marine mammals, sea turtles, and seabirds. As of October 2011, there were 242 vessels that could use pelagic longline to catch HMS. The effectiveness of existing pelagic longline time/area closures in reducing bycatch has been evaluated on an annual basis since 2006 for the HMS Stock Assessment and Fishery Evaluation Report. In the 2011 Stock Assessment and Fishery Evaluation report, we examined the combined effects of the individual time/area closures and gear restrictions, comparing the reported catch and discards from 2005 through 2010 to the averages for 1997 through 1999, throughout the entire U.S. Atlantic fishery. Overall effort, expressed as the number of hooks reported per set, declined by 27.6 percent during 2005 through 2010 compared to1997 through 1999. We also noted declines in both the numbers of kept animals and discards of almost all species examined, including swordfish, tunas, sharks, billfish, and sea turtles. The only increases from the base period were the numbers of bluefin tuna and dolphin kept. The closures also had an impact with respect to the number of interactions with bycatch and protected species (turtles).

The bottom longline fishery targets sharks. Comparing landings reported from the South Atlantic region between 2002 through 2004 (without closed area) with 2005 (with closed area) indicates that landings of LCS decreased by 22.3 percent after implementation of the mid-Atlantic shark closed area. Landings of sandbar sharks in the South Atlantic region decreased by 26.7 percent in 2005 compared to 2002–2004, which could have been a result of the mid-Atlantic shark closed area. In addition, observer data from 1994 to 2004 (i.e., before the implementation of the closed area) indicate that there have been five loggerhead sea turtles observed caught on bottom longline gear in the vicinity of the mid-Atlantic shark closed area, two of which were released alive. Therefore, maintaining the mid-Atlantic closed area under Alternative B1 may maintain reductions in sea turtle interactions with sea turtles and bottom longline gear when compared to pre-closure levels, and, therefore have positive ecological impacts for protected resources.

Despite the ecological benefits of the existing pelagic and bottom longline time/area closures, dusky sharks continue to experience overfishing, and additional measures to reduce interactions and mortality of dusky sharks in HMS fisheries are necessary based on the most recent assessment. Maintaining the existing time/area closures, and not implementing additional closures, would result in direct, minor, adverse, short-term ecological impacts for dusky sharks. These impacts would likely become moderate and/or significant as existing interaction rates for dusky sharks would continue to exacerbate overfishing, thus inhibiting the probability that dusky shark populations would rebuild by 2099. The direct and indirect impacts on other species, both HMS and non-HMS target species, bycatch, and protected resources, are expected to be neutral in the short- and long-term because the existing time/area closures would be maintained. Given the minor direct impacts of most species, including dusky sharks, we expect the indirect impacts to ecosystem function and predator/prey relationships as a result of Alternative B1 to be neutral in the short- and long-term.

Maintaining the existing pelagic and bottom longline closures and not implementing additional time/area closures, as proposed in this rulemaking, would have direct, neutral, short-term economic impacts. Vessels would continue to operate subject to existing regulations, including time/area closures, therefore no new economic impacts would be associated with maintaining the status quo. However, in the long-term, if additional measures to prevent overfishing of dusky sharks and allow populations to rebuild were implemented, including time/area closures, minor to moderate adverse economic impacts could be experienced by participants in the pelagic and bottom longline fisheries.

In addition to direct impacts to vessels owners, operators, and crew members, this alternative would have also have neutral indirect impacts in the short- and long-term on fish dealers, processors, bait/gear suppliers, and other shore-based businesses impacted by fishing opportunities for pelagic and bottom longline vessels. Maintaining the status quo would also result in neutral impacts on local fishing communities because it would not modify the existing time/area closures or require that vessels relocate from homeports, have longer trips at sea, and other social hardships that stem from further reducing fishing opportunities for Atlantic HMS vessels.

Alternative B1, the No Action Alternative, is not preferred because maintaining the status quo would not reduce dusky shark fishing mortality by 62 percent, consistent with the stock assessment recommendations. Although the economic impacts of maintaining the status quo would be largely neutral, the adverse ecological impacts are unacceptable and inconsistent with the objectives of this rulemaking, specifically, to implement ''stand-alone measures to reduce shark fishing mortality to rebuild overfished stocks and end overfishing.''

Alternative B2 would extend the Charleston Bump time/area closure through the month of May. This alternative would result in direct, moderate, beneficial ecological impacts for dusky sharks. In the short-term, these impacts may be minor compared to the long-term where impacts may increase to ''moderate'' because the benefits of reducing interactions with individual dusky sharks may take several years to affect the dusky shark population. However, the ecological impacts on numerous HMS and non-HMS target species, prohibited species, and other bycatch depends on the species and whether or not interactions increase or decrease after redistribution of fishing effort from the closed area to adjacent open areas in the Charleston Bump. The direct ecological impacts of closing the Charleston Bump during the month of May would have minor beneficial impacts in the short- and long-term for protected resources because interactions with leatherback and loggerhead sea turtles would decrease by one turtle per species.

Additionally, Alternative B2 would result in direct, moderate, adverse short- and long-term economic impacts. On average from 2008 to 2010, 27 vessels fished in the area that would be closed. However, all pelagic longline vessels could potentially be affected by reduced fishing opportunities. Overall, the annual average reduction in revenues as a result of this closure would be $385,887 (fishery-wide), after adjusting for redistribution of effort into remaining open areas of the South Atlantic Bight Statistical reporting area. Vessels fishing in this area during the month of May are primarily targeting swordfish and dolphin, and, to a lesser extent, wahoo and yellowfin tuna. Reductions of 46 percent (−$356,001) and 12 percent (−$148,447) for swordfish and dolphin, respectively, would be expected on a regional basis after fishing effort is redistributed to remaining open areas of the South Atlantic Bight Statistical reporting area. Wahoo revenues would decrease by 78 percent regionally (−$7,434) with redistribution of fishing effort. Redistributing fishing effort to remaining open areas of the South Atlantic Bight would increase interactions and revenues from bluefin tuna (+$32,758), yellowfin tuna

(+$60,831), and bigeye tuna (+$23,111). While most pelagic longline vessels do not target sharks, revenues from sharks (predominately from shortfin mako sharks) would increase by $9,442.

Alternative B2 would extend an existing three month time/area closure for pelagic longline vessels in the Charleston Bump region for an additional month, which would impose limits on regional fishing opportunities. In addition to direct impacts to vessels owners, operators, and crew members, this alternative would have minor, adverse indirect impacts in the short- and long-term on fish dealers, processors, bait/gear suppliers, and other shore-based businesses in the vicinity of the closure. Impacts would be more pronounced in the vicinity of the proposed closure because of the size and duration of the closure because regional vessel owners would have to travel further to fish in open areas; however, pelagic longline vessels from other areas that have traditionally fished in the proposed closure would also experience adverse economic impacts. The closure may result in numerous indirect social impacts ranging from disruption of local fishing communities to relocation of vessels and homeports, loss of crew, increased time at sea, and other social hardships stemming from further reducing fishing opportunities in the Charleston Bump region.

Alternative B2 is not preferred because Alternative B3 meets the Amendment's objectives and Alternative B2 would result in adverse economic impacts compared to Alternative B3. Alternative B3 includes a sub alternative (Alternative B3a) that would close a portion of the area encapsulated in Alternative B2 where the majority of the dusky shark interactions occur but would not close the entire Charleston Bump. The objective of this rulemaking is to reduce fishing mortality of dusky sharks, and Alternative B2 would reduce dusky shark interactions by an additional nine fish, compared to Alternative B3a. However, interactions with some other species would increase (tiger sharks, hammerhead sharks, sandbar sharks, bluefin tuna, and blue marlin). On balance, Alternative B2 is not selected and Alternative B3 is preferred because Alternative B3a provides ecological benefits that meet the Amendment's objectives while mitigating economic impacts.

Alternative B4 would implement bycatch caps on dusky shark interactions in hotspot areas identified for closure in Alternatives B3. Under this alternative, fishermen could fish in hotspot areas until a specified number of dusky shark interactions occur. If vessel owners are selected for observer coverage and an observer is available, these vessels would be able to fish in hotspot areas within statistical reporting areas for which they had been selected. Vessel operators would be able to fish outside of an area for which they had been selected but they would not be able to fish within any hotspot areas in other statistical reporting areas. This alternative would not completely close the hotspot areas and fishing would still be allowed, with 100-percent observer coverage. The number of dusky shark interactions allowed in hotspot areas would be set at 10 percent of the estimated 3-year reduction in dusky shark interactions by closing each hotspot area and accounting for redistribution of effort. Once observed interactions with dusky sharks meet the 10-percent threshold for a particular hotspot area, then that area would be closed for the remainder of the 3-year period. Any overharvests in excess of the bycatch cap would be accounted for in the subsequent 3-year period.

The ecological impacts of hotspot area closures in Alternative B4 would be similar to those described for the proposed hotspot closed areas in Alternative B3. Overall, for dusky sharks, this alternative would also have moderate, direct beneficial impacts for dusky sharks. In the short-term, these benefits may be somewhat reduced compared to the long-term because the benefits of reducing interactions with individual dusky sharks may take several years to affect the dusky shark population. Interactions with the 34 HMS and non-HMS target species, prohibited species, and bycatch, analyzed in Alternative B3 could be increased or decreased by 10-percent compared to completely closing the area to fishing because vessels would be able to fish in these areas (with an observer) until the 10 percent bycatch cap for dusky sharks was reached. However, because vessels would have to be selected for observer coverage and have an observer onboard to fish in these areas, overall fishing effort and how vessels fish in these hotspot areas would be affected. It is very likely that fishing effort would be reduced considerably in the hotspot areas, especially compared to the status quo, because only a limited number of vessels could gain access in the hotspot area every year subject to observer availability. Furthermore, if a bycatch cap were implemented, vessels may change fishing practices in order to reduce the likelihood of a dusky shark interaction. In the past, fishermen may not have had any incentive to avoid dusky sharks. If bycatch caps were implemented, interactions with dusky sharks in excess of the cap would close the area for up to 3 years, in which case fishermen may change fishing behavior to minimize the likelihood of catching a dusky shark. Fishermen may deploy ''feeler sets'' (shorter sets in length with fewer hooks that are shorter in duration compared to other sets) in order to ascertain whether dusky sharks are in the vicinity. Avoiding water of a certain temperature, shorter soak times, and changes to hook and bait configurations also may be employed to try to avoid dusky sharks.

Implementing bycatch caps in conjunction with the proposed hotspot closed described in Alternative B3 would result in direct, minor adverse socioeconomic impacts in the short- and long-term consistent with the social and economic impacts described for each of the hotspot closed areas included in Alternative B3. The direct economic impacts of Alternative B4 would be less adverse in the short-term than implementing the proposed hotspot closed areas because bycatch caps would allow a limited amount of fishing to continue within the hotspot area until a bycatch cap was reached. The exact economic impacts of implementing bycatch caps would depend on the number of vessels authorized to fish in the hotspot areas (vessels selected for observer coverage and carrying an observer) on an annual basis and the number of trips that occur within each hotspot area before the bycatch cap is met. After the cap is met, economic impacts would be more pronounced and consistent with impacts of Alternative B3, because the hotspot area would close for the remainder of the 3-year period.

Alternative B4 is not preferred because it would result in additional challenges for pelagic longline observers. Relative to target catch and incidentally retained pelagic sharks, interactions with dusky sharks are a rare event, making positive identification difficult without bringing the fish onboard. Furthermore, if and when vessel operators and crew interact with a prohibited species, their goal is to cut the line and release the fish in a manner that maximizes the probability of survival, therefore observers may not have the time and viewing opportunities necessary to identify the sharks with absolute certainty. Pelagic longline vessels typically use longer gangions and have a higher freeboard than other vessels, which also hinders an observer's ability to get an adequate view of the shark to ensure that it is a dusky shark and not another

Carcharhinid shark (e.g., sandbar or silky sharks are commonly confused with dusky sharks). Assuming that all unidentified *Carcharhinid* sharks are dusky sharks may alleviate this concern to a degree; however, we prefer implementation of the hotspot closed areas described in Alternative B3, without bycatch caps, at this time.

Alternative B7 would prohibit the use of pelagic longline and bottom longline gear in all HMS fisheries. Prohibiting the use of pelagic longline gears would have direct, significant beneficial ecological impacts on target and non-target HMS, prohibited species, and bycatch in the short- and long-term. The species-specific ecological impacts on 34 HMS and non-HMS target species, prohibited species, and other bycatch depends on the species' life history, population status, and interaction rates in the pelagic longline fishery. Of the alternatives considered, this alternative would have the most beneficial ecological impacts for dusky sharks because the number of interactions would be reduced by 586 sharks per year. The number of harvested and discarded swordfish would decrease by 48,926 fish per year. Yellowfin tuna harvested would decrease by 35,757 fish per year. Blue and white marlin discards would also decrease by prohibiting the use of pelagic longline gear by 734 and 779 fish per year, respectively. Bluefin tuna kept and discarded 1,853 fish per year. Interactions with loggerhead and leatherback sea turtles would decrease by 162 and 70 turtles per year, respectively. Interactions with pelagic sharks, prohibited sharks, and LCS would all be decreased substantially.

Prohibiting the use of bottom longline gear—which is primarily used to target LCS in HMS fisheries—would have direct, significant, and beneficial ecological impacts on dusky sharks. Indirect, significant, beneficial impacts on HMS and non-HMS target species (primarily LCS), non-target HMS, and protected species in the short- and long-term are also expected. The majority of LCS are caught on bottom longline gear. In 2010, approximately 73 percent of LCS were caught on bottom longline gear. The species-specific ecological impacts on HMS and non-HMS target species, prohibited species, and other bycatch depends on the species' life history, population status, and interaction rates in the bottom longline fishery. Observers are onboard for 100 percent of the trips targeting sandbars in the shark research fishery and for 2–3 percent of the trips outside the shark research fishery. Prohibiting bottom longline gear and closing the shark research fishery would decrease the number of dusky shark interactions because dusky sharks are predominately caught in the bottom longline fishery by vessels targeting sandbar sharks. Between 2008 and 2010, there were 325 observed interactions with dusky sharks in the shark research fishery.

Closing the pelagic and bottom longline fisheries would have indirect, minor negative ecological impacts because these fisheries are the primary source of fishery dependent data. These data are critical to scientific understanding of the species that the fisheries interact with, and the basis of stock assessments for many target and bycatch species frequently encountered. Closing these fisheries would eliminate the logbooks submitted by longline vessel operators and remove the Agency's ability to deploy observers on longline vessels. Observer programs for the pelagic and bottom longline fishery, administered by the Southeast Fisheries Science Center, rely on observers for tagging studies, collecting biological samples, and for enhancing understanding on the life history and ecology of living marine resources. Closing the pelagic and bottom longline fisheries would result in direct, significant adverse economic impacts in the short- and long-term for longline vessel owners, operators, and crew. In 2010, there were 242 tuna longline permits (pelagic longline) and 217 shark directed permit holders (bottom longline) that would be affected. In 2010, the pelagic and bottom longline fisheries had revenues of $27,026,120, which equates to approximately 70 percent of the total revenues for all commercial HMS fisheries.

In addition to direct impacts to vessels owners, operators, and crew members, this alternative would have significant, adverse indirect impacts in the short- and long-term on fish dealers, processors, bait/gear suppliers, and other shore-based businesses in the vicinity of the fishing ports impacted by reduced fishing opportunities for longline vessel owners. Prohibiting the use of longline gear would result in significant, indirect social impacts ranging from disruption of local fishing communities to relocation of vessels and homeports, loss of crew, increased time at sea, and other social hardships stemming from further reducing fishing opportunities for HMS participants. The states with the most tuna permit holders are Massachusetts (31.5 percent), North Carolina (12.9 percent), Maine (10.2 percent), New Jersey (7.0 percent), and New York (6.4 percent). The states with the most swordfish permit holders are Florida (32.4 percent), New Jersey (13.9 percent), Louisiana (11.9 percent), Massachusetts (9.1 percent), and New York (8.0 percent). The states with the majority of shark directed permit holders include Florida (62 percent), New Jersey (11 percent), and North Carolina (7 percent).

Alternative B7 would result in ecological benefits for the 34 species considered in this analysis because prohibiting bottom longline and pelagic longline gear would eliminate a significant source of fishing mortality for these species. However, the economic impacts stemming from prohibiting of these gears would also be significant. While an objective of this rulemaking is to reduce fishing mortality of dusky sharks and this alternative would meet this goal, we do not prefer this alternative at this time because this objective can be achieved via implementation of other measures, as described above.

Request for Comments

We are requesting comments on the alternatives and analyses described in this proposed rule and in the draft Amendment 5. Comments on this proposed rule may be submitted via *http://www.regulations.gov,* mail, or fax. Comments may also be submitted at a public hearing (see Public Hearings and Special Accommodations below). We solicit comments on this proposed rule by February 12, 2013 (see **DATES** and **ADDRESSES**).

We will announce the dates and locations of public hearings in a future **Federal Register** notice. Additionally, we have requested to present a summary of the draft amendment and this proposed rule to the five Atlantic Regional Fishery Management Councils (the New England, Mid-Atlantic, South Atlantic, Gulf of Mexico, and Caribbean Fishery Management Councils) and the Atlantic and Gulf States Marine Fisheries Commissions during the public comment period. Please consult the Councils' and Commissions' fall meeting notices for times and locations.

We are also requesting comments on specific items related to the alternatives to clarify sections of the regulatory text or in analyzing potential impacts of the alternatives. Specifically, we request comments on:

1. Monitoring dusky shark bycatch caps. We are seeking public comment on how to administer monitoring of dusky shark bycatch caps with limited additional observer program resources. One alternative that we are considering would implement dusky shark bycatch caps on vessels fishing with pelagic longline gear. This alternative would allow pelagic longline vessels limited

access to high dusky shark interaction areas while limiting the number of dusky shark interactions that could occur in these areas. Once the dusky shark bycatch cap for an area is reached, that area would close until the end of the 3-year bycatch cap period (see Alternative B4 above). To implement this alternative, we would need an appropriate level of monitoring and accuracy to ensure the mortality rate of dusky sharks, as determined by the stock assessment and this amendment, is not exceeded. However, additional funding sources to provide increased observer coverage to monitor dusky bycatch cap areas are unlikely, and we are looking for comments on how to monitor these areas if this alternative is implemented. Options that we are exploring range from allowing access only to vessels that have been selected for pelagic longline observer program coverage under its current selection process and when they are on a trip with an observer on board, to establishing other monitoring programs, such as an industry-funded observer program, or the use of electronic monitoring technology (e.g., video monitoring).

2. The name ''aggregated LCS.'' We are seeking public comment on what to name the reconfigured grouping of sharks that would continue to be managed collectively in the remainder of what is currently the LCS complex for quota monitoring purposes. When we began managing sharks, we grouped sharks for management purposes into three species complexes: large coastal, small coastal, and pelagic sharks. Over time, as a result of numerous species-specific stock assessments and increasing requests for species-specific management, we have begun managing a number of species separately and have removed those species from the original LCS complex. In the draft Amendment 5 and this proposed rule, we use the name ''aggregated LCS.'' However, other names may exist that are more descriptive or appropriate and that could help avoid confusion in the fishery as the groupings are reconfigured.

3. Suggestions for improving angler identification of shark species and reducing dusky shark mortality in the recreational fishery. We are looking for comments and suggestions on how to improve angler identification of the different shark species. Many shark species are similar looking, particularly to recreational anglers who may not see sharks on a regular basis. This difficulty in identifying sharks correctly has resulted in recreational shark management measures that try to group all sharks together (e.g., the recreational retention limit of one shark per vessel per trip). However, these measures have not been effective for some species, such as dusky sharks, which are prohibited but look similar enough to other species that some anglers land them in error. In the draft Amendment 5 and this proposed rule, we propose increasing outreach to anglers and have suggested a companion to the current shark placard that would describe the characteristics of sharks that cannot be landed recreationally. We are looking for comments and suggestions on additional methods we can use to provide recreational anglers, particularly those that rarely fish for sharks, information on how to identify sharks and comply with the regulations. We are also looking for comments on additional approaches that could reduce dusky shark mortality in the recreational fishery to help meet the rebuilding targets of the Southeast Data, Assessment, and Review 21 stock assessment. Because dusky sharks are prohibited from recreational retention, we are proposing enhancing outreach and education efforts along with increasing the recreational minimum size from 4.5 feet fork length to 8 feet fork length to reach the rebuilding target, but acknowledge that there may be other approaches that could assist in reaching that target while also resulting in fewer changes to the way the recreational fishery currently operates.

4. Stowing longline gear to transit closed areas. We are looking for comments on the proposed change that would allow longline fishermen to stow gear and transit closed areas. There are currently a number of time/area closures for pelagic and bottom longline fishermen that have commercial swordfish and/or shark limited access permits. The regulations do not provide these fishermen the ability to stow their gear and transit the areas. Instead, fishermen must go around the areas to remain in compliance with the regulations. Among other things, this restriction has raised safety-at-sea concerns and could increase the economic cost of fishing by requiring fishermen to spend more time at sea and use more fuel. Over the years, we have heard from fishermen that they should be allowed to transit the closed areas if the hydraulics are disconnected from the mainline and drum. However, we have not implemented that in lieu of a stowage requirement because of concerns that the hydraulics are easily reconnected and, therefore, disconnecting them does not effectively render the gear unavailable for use. In this proposed rule, we propose language similar to the language used in § 622.34 and § 648.23 that would allow fishermen to transit the closed areas if they remove and stow the gangions, hooks, and buoys from the mainline and drum. The hooks could not be baited. We are seeking comments on whether this language is appropriate, if following those requirements is possible on bottom and pelagic longline vessels, and if disconnecting the hydraulics is a feasible option to consider.

Classification

Pursuant to the Magnuson-Stevens Act, the NMFS Assistant Administrator has determined that the proposed rule is consistent with the 2006 Consolidated HMS FMP and its amendments, other provisions of the Magnuson-Stevens Act, ATCA, and other applicable law, subject to further consideration after public comment.

This proposed rule has been determined to be not significant for purposes of Executive Order 12866.

We prepared a draft environmental impact statement (EIS) for this rule that discusses the impact on the environment that would result from this rule. A copy of the EIS is available from NMFS (see **ADDRESSES**). The Notice of Availability of the EIS is publishing in the **Federal Register** on the same day as this proposed rule. A summary of the impacts of the alternatives considered is described above.

Paperwork Reduction Act

This proposed rule would require recreational fishermen who are not fishing in a tournament to report all landings of hammerhead sharks. If finalized, this requirement would be considered a collection-of-information requirement and would be subject to review and approval by OMB under the Paperwork Reduction Act (PRA). Because we are currently in the process of renewing the existing non-tournament recreational reporting requirement for billfish, swordfish, and bluefin tuna and cannot make changes while in the renewal process, we have not yet submitted this collection-of-information to OMB for approval. If we finalize this permitting requirement, we would submit an application amending the existing non-tournament recreational reporting collection-of-information to OMB for approval and would delay implementation of that portion of the rule pending approval.

Public comment is sought regarding: whether this proposed collection of information is necessary for the proper performance of the functions of the agency, including whether the

information shall have practical utility; the accuracy of the burden estimate; ways to enhance the quality, utility, and clarity of the information to be collected; and ways to minimize the burden of the collection of information, including through the use of automated collection techniques or other forms of information technology. Send comments on these or any other aspects of the collection of information to (enter office name) at the **ADDRESSES** above, and by email to *OIRA_Submission@omb.eop.gov* or fax to (202) 395–7285.

Notwithstanding any other provision of the law, no person is required to respond to, nor shall any person be subject to, a penalty for failure to comply with, a collection-of-information subject to the requirements of the PRA, unless that collection-of-information displays a currently valid OMB Control Number.

Regulatory Flexibility Act

An initial regulatory flexibility analysis (IRFA) was prepared, as required by section 603 of the Regulatory Flexibility Act (RFA). The IRFA describes the economic impact this proposed rule, if adopted, would have on small entities. A summary of the analysis follows. A copy of this analysis is available from NMFS (see **ADDRESSES**).

In compliance with section 603(b)(1) of the RFA, the purpose of this proposed rulemaking is, consistent with the 2006 Consolidated HMS FMP objectives, the Magnuson-Stevens Act, and other applicable law, to rebuild and end overfishing of certain species of sharks, as appropriate. As described earlier in the preamble of this proposed rule and in Chapter 1 of the draft Amendment 5, based on the results of the Southeast Data, Assessment, and Review 21 stock assessments for sandbar, dusky, and blacknose sharks, and a published stock assessment for scalloped hammerhead sharks, we have determined that sandbar, dusky, scalloped hammerhead, and Atlantic blacknose sharks are overfished and that dusky, scalloped hammerhead, and Atlantic blacknose sharks are experiencing overfishing. In addition, the overfishing and overfished status of the Gulf of Mexico blacknose shark stock is unknown, and the results of the Gulf of Mexico blacktip shark stock assessment are to be incorporated into this amendment as appropriate.

In compliance with section 603(b)(2) of the RFA, the objectives of this proposed rulemaking are to provide for the sustainable management of shark species under authority of the Secretary consistent with the requirements of the Magnuson-Stevens Act and other statutes which may apply to such management, including the Endangered Species Act, Marine Mammal Protection Act, and Atlantic Tunas Convention Act. As described earlier in the preamble of this proposed rule and in Chapter 1 of the draft Amendment 5, the management objectives of the proposed regulations will be to amend the 2006 Consolidated HMS FMP to achieve the following: end overfishing and achieve optimum yield for dusky, scalloped hammerhead, and Atlantic blacknose sharks; implement a rebuilding plan for scalloped hammerhead and Atlantic blacknose sharks to ensure that fishing mortality levels for both species are maintained at or below levels that would result in a 70 percent probability of rebuilding in the timeframe recommended by the assessments; modify the current rebuilding plan for dusky sharks to ensure that fishing mortality levels for dusky sharks are maintained at or below levels that would result in a 70 percent probability of rebuilding in the timeframe recommended by the assessment; maintain the rebuilding plan for sandbar sharks to ensure 70 percent probability of rebuilding in the timeframe recommended by the assessment; and achieve optimum yield and provide an opportunity for the sustainable harvest of Gulf of Mexico blacknose, Gulf of Mexico blacktip sharks, and other sharks, as appropriate.

Section 603(b)(3) of the RFA requires Agencies to provide an estimate of the number of small entities to which the rule would apply. The Small Business Administration has defined a ''small'' fishing entity as one with average annual receipts of less than $4.0 million; a small charter/party boat entity is one with average annual receipts of less than $6.5 million; a small wholesale dealer as one with 100 or fewer employees; and a small seafood processor as one with 500 or fewer employees. Under these standards, we consider all Atlantic HMS permit holders subject to this rulemaking to be small entities.

The proposed rule would apply to the 479 commercial shark permit holders in the Atlantic shark fishery based on an analysis of permit holders in October 2011. Of these permit holders, 217 have directed shark permits and 262 hold incidental shark permits. Not all permit holders are active in the fishery in any given year. We estimate that between 2008 and 2011, approximately 169 vessels with directed shark permits and 121 vessels with incidental shark permits landed sharks. The hotspot closed area alternatives also impact pelagic longline vessels. Based on the number of Tuna Longline permit holders, we estimate that there are 242 longline vessels with HMS permits that could potentially be impacted by the proposed hotspot closed areas. Of those pelagic longline vessels, 116 actively fished in 2011.

The recreational measures proposed would also impact HMS Angling category and HMS Charter/Headboat category permit holders. In general, the HMS Charter/Headboat category permit holders can be regarded as small businesses, while HMS Angling category permits are typically obtained by individuals who are not considered small entities for purposes of the RFA. In 2011, 4,194 vessels obtained HMS Charter/Headboat category permits. It is unknown what portion of these permit holders actively participate in shark fishing or market shark fishing services for recreational anglers.

Under section 603(b)(4) of the RFA, Agencies are required to describe any new reporting, record-keeping and other compliance requirements. Most of the proposed commercial and recreational measures would not introduce any new reporting and record-keeping requirements. However, Alternative Suite A2 would require hammerhead shark reporting through the non-tournament reporting system. While this reporting requirement primarily impacts recreational fishermen, it also impacts small entities that operate charter/headboat trips that catch hammerhead sharks. The 4,194 charter/headboat permit holders in 2011 would be required to submit hammerhead shark landings through the non-tournament reporting system. Some small portion of those charter/headboat permit holders, primarily vessels in the Gulf of Mexico or South Atlantic targeting sharks, would actually be submitting reports because most charter-headboat trips target other HMS species and not hammerhead sharks.

Under section 603(b)(5) of the RFA, Agencies must identify, to the extent practicable, relevant Federal rules which duplicate, overlap, or conflict with the proposed rule. Fishermen, dealers, and managers in these fisheries must comply with a number of international agreements, domestic laws, and other FMPs. These include, but are not limited to, the Magnuson-Stevens Act, ATCA, the High Seas Fishing Compliance Act, the Marine Mammal Protection Act, the Endangered Species Act, the National Environmental Policy Act, the Paperwork Reduction Act, and the Coastal Zone Management Act. The new regulations proposed to be implemented

do not conflict with any relevant regulations, Federal or otherwise.

Under section 603(c), agencies are required to describe any alternatives to the proposed rule which accomplish the stated objectives and which minimize any significant economic impacts. These impacts are summarized below and in Amendment 5.

One of the requirements of an IRFA is to describe any alternatives to the proposed rule which accomplish the stated objectives and which minimize any significant economic impacts. These impacts are discussed below. Additionally, the RFA (5 U.S.C. 603(c)(1)–(4)) lists four general categories of ''significant'' alternatives that would assist an agency in the development of significant alternatives. These categories of alternatives are: (1) Establishment of differing compliance or reporting requirements or timetables that take into account the resources available to small entities; (2) clarification, consolidation, or simplification of compliance and reporting requirements under the rule for such small entities; (3) use of performance rather than design standards; and (4) exemptions from coverage of the rule for small entities. In order to meet the objectives of this proposed rule, consistent with the Magnuson-Stevens Act and ESA, we cannot exempt small entities or change the reporting requirements only for small entities because all the entities affected are considered small entities. Thus, there are no alternatives discussed that fall under the first and fourth categories described above. Under the third category, ''use of performance rather than design standards,'' we consider Alternative B4 addressing dusky shark bycatch caps in the pelagic longline fishery, to be a performance standard rather than a design standard. It establishes performance levels for pelagic longline vessels for avoiding interactions with dusky sharks, and only triggers closures of hotspot areas if those performance levels are exceeded. As described below, we analyzed several different alternatives in this proposed rulemaking and provide the rationale for identifying the preferred alternative to achieve the desired objective.

In this rulemaking, we considered two different categories of issues to address shark management measures where each issue had its own range of alternatives that would meet the objectives of the Magnuson-Stevens Act and the 2006 Consolidated HMS FMP. The first category (Alternative Suites A1–A5) covers five alternative suites that address various shark quotas and total allowable catch. The second category of alternatives (Alternatives B1–B7) involves pelagic longline and bottom longline effort modifications, including time/area closures, bycatch caps, modification to the existing bottom longline shark research fishery, and gear restrictions. The expected economic impacts of the different alternatives considered and analyzed are discussed below. The potential impacts these alternatives may have on small entities have been analyzed and are summarized below. The full IRFA and all its analyses can be found in draft Amendment 5. The proposed action includes: Alternative Suite A2, Alternative B3, Alternative B5, and Alternative B6. The economic impacts that would occur under these proposed actions were compared with the other alternatives considered to determine if economic impacts to small entities could be minimized while still accomplishing the stated objectives of this rule.

Under the first group of alternatives that address various shark quotas and total allowable catches, Alternative Suite A1 (status quo) would not change current management of the Atlantic shark fisheries. Specifically, for hammerhead sharks, from 2008 through 2011, approximately 39 vessels with directed shark permits had hammerhead shark landings, while approximately 9 vessels with incidental shark permits had hammerhead shark landings in the Atlantic. In the Gulf of Mexico, approximately 25 vessels with directed shark permits had hammerhead shark landings, while approximately 4 vessels with incidental shark permits had hammerhead shark landings. Spread amongst the directed and incidental shark permit holders that landed scalloped hammerhead in the Atlantic, the average directed shark permit holder earned $748 in average annual gross revenues, and the average incidental shark permit holder earned $760 in average annual gross revenues from scalloped hammerhead shark landings. Spread amongst the directed and incidental shark permit holders that landed scalloped hammerhead in the Gulf of Mexico, the average directed shark permit holder earned $1,363 in average annual gross revenues, and the average incidental shark permit holder earned $1,387 in average annual gross revenues from scalloped hammerhead shark landings. Scalloped hammerhead sharks compose a small portion of total non-sandbar LCS landings; an annual average of 7.6 percent of non-sandbar LCS landings are scalloped hammerhead sharks in the Atlantic and 4.3 percent on the Gulf of Mexico. Scalloped hammerhead sharks are overfished with overfishing occurring, and the stock could become increasingly unproductive, therefore we do not prefer this alternative at this time.

For LCS, from 2008 through 2011, approximately 68 vessels with directed shark permits had non-sandbar LCS landings, while approximately 25 vessels with incidental shark permits had non-sandbar LCS landings in the Atlantic. In the Gulf of Mexico, approximately 45 vessels with directed shark permits had non-sandbar LCS landings, while approximately 11 vessels with incidental shark permits had non-sandbar LCS landings. It is estimated that these permit holders would be the most affected by management measures proposed for non-sandbar LCS. Spread amongst the directed and incidental shark permit holders that landed non-sandbar LCS in the Atlantic, the average directed shark permit holder earned $7,656 in average annual gross revenues, and the average incidental shark permit holder earned $7,703 in average annual gross revenues from non-sandbar LCS landings. Spread amongst the directed and incidental shark permit holders that landed non-sandbar LCS, the average directed shark permit holder earned $19,001 in average annual gross revenues, and the average incidental shark permit holder earned $19,433 in average annual gross revenues from non-sandbar LCS landings.

For Gulf of Mexico blacktip sharks, from 2008 through 2011, approximately 41 vessels with directed shark permits had blacktip shark landings, while approximately 4 vessels with incidental shark permits had blacktip shark landings in the Gulf of Mexico. Spread amongst the directed and incidental shark permit holders that landed blacktip shark, the average directed shark permit holder earned $13,861 in average annual gross revenues, and the average incidental shark permit holder earned $14,051 in average annual gross revenues from blacktip shark landings.

For blacknose sharks, since Amendment 3 to the 2006 HMS FMP was implemented in 2010, an average of approximately 25 vessels with directed shark permits had blacknose shark landings, while approximately 4 vessels with incidental shark permits had blacknose shark landings. It is estimated that these permit holders would be the most affected by management measures proposed for blacknose sharks. Spread amongst the directed and incidental shark permit holders that landed blacknose, the average directed shark permit holder earned $1,739 in average annual gross revenues, and the average

incidental shark permit holder earned $222 in average annual gross revenues from blacknose shark landings.

Similarly, for non-blacknose SCS, since Amendment 3 to the 2006 HMS FMP was implemented in 2010, an average of approximately 39 vessels with directed shark permits had blacknose shark landings, while approximately 13 vessels with incidental shark permits had non-blacknose SCS landings. It is estimated that these permit holders would be the most affected by management measures proposed for non-blacknose SCS. Spread amongst the directed and incidental shark permit holders that landed non-blacknose SCS, the average directed shark permit holder earned $13,414 in average annual gross revenues, and the average incidental shark permit holder earned $1,677 in average annual gross revenues from non-blacknose SCS landings.

Regarding quota linkages, since Alternative Suite A1 does not create any new species or species complex, new quota linkages would be unnecessarily. Consequently, there are no additional direct or indirect socioeconomic impacts in the short or long-term beyond those discussed for scalloped hammerhead, blacktip sharks, non-blacknose SCS, and blacknose sharks.

Regarding recreational measures, under Alternative Suite A1, there would be no changes to the existing recreational retention limits for all species. Therefore, small entities, such as charter/headboat operators and tournaments that target sharks, would not experience any change in economic impact under this alternative.

When taken as a whole, Alternative Suite A1 would likely have neutral economic impacts on small entities in the short-term because the fisheries would continue to operate as status quo. In the long-term, it could cause direct minor adverse economic impacts because we would need to make to changes to the fishery to address the overfishing and overfished stocks. Since Alternative Suite A1 does not address the overfished and/or overfishing determination based on recent stock assessments, we do not prefer this alternative at this time.

Alternative Suite A2, the preferred alternative, would establish new species complexes by regions, adjust LCS and SCS quotas, link appropriate quotas, and increase the shark minimum recreational size to 96″ FL. Specifically, for scalloped hammerhead sharks, under Alternative Suite A2, we would establish an Atlantic and a Gulf of Mexico hammerhead shark quota (including scalloped, smooth, and great hammerhead sharks). Under those quotas, the reduction in revenue fishery-wide would be $809 in the Atlantic and $928 in the Gulf of Mexico. Therefore, there would be minimal impact on the annual revenues of individual vessels actively involved in the fishery.

For LCS, Alternative Suite A2 would establish new, separate quotas for scalloped hammerhead sharks and Gulf of Mexico blacktip sharks, necessitating removal of these species from the non-sandbar LCS complex (which will then be renamed aggregated LCS complex in both the Atlantic and Gulf of Mexico). The aggregated LCS quota would be based on average annual landings of the remaining species, therefore, those species composing the aggregated LCS complex would not experience a change in fishing pressure and landings would be capped at recent levels. For these reasons, economic impacts to small entities resulting from this portion of Alternative Suite A2 are expected to be neutral.

For Gulf of Mexico blacktip sharks, this alternative suite's proposed blacktip shark action would essentially maintain the current fishing levels and is likely to result in neutral economic impacts to small entities. We have determined that the Gulf of Mexico blacktip shark stock is not overfished and not experiencing overfishing. The results of the most recent stock assessment indicate the Gulf of Mexico blacktip shark stock can sustain current fishing levels and should not result in any additional impacts to small entities.

For blacknose sharks, under Alternative Suite A2, we would separate blacknose sharks into the Atlantic and Gulf of Mexico regions as suggested in the Southeast Data, Assessment, and Review 21 stock assessment. These alternatives would decrease the blacknose shark landings in each region. Average annual gross revenues for the blacknose shark landings for the Atlantic region would decrease from $58,122 under the No Action alternative down to $54,854 under Alternative Suite A2. We anticipate these directed and incidental shark permit holders would experience minor economic impacts as blacknose sharks are not the targeted shark species for SCS fishermen. Average annual gross revenues for the blacknose shark landings for the Gulf of Mexico region would increase from $3,273 under the No Action alternative to $5,650 under Alternative Suite A2. We anticipate these directed and incidental shark permit holders would experience neutral economic impacts since the new Gulf of Mexico blacknose shark quota is consistent with current landings. In the short-term, lost revenues would be moderate for the 22 directed shark permit and 3 incidental shark permit holders that land blacknose sharks in the Atlantic region, and the 8 directed shark and the 2 incidental shark permits that land blacknose sharks in the Gulf of Mexico.

For non-blacknose SCS, Alternative Suite A2 would establish regional quotas for non-blacknose SCS based on the landings since Amendment 3 to the 2006 HMS FMP was implemented in 2010. In the Atlantic, an average of approximately 33 vessels with directed shark permits had blacknose shark landings, while approximately 10 vessels with incidental shark permits had non-blacknose SCS landings. In the Gulf of Mexico, an average of approximately 9 vessels with directed shark permits had blacknose shark landings, while approximately 3 vessels with incidental shark permits had non-blacknose SCS landings since Amendment 3. Under the Alternative Suite A2, there would be neutral economic impacts to directed and incidental shark permit holders as the average annual gross revenues from non-blacknose SCS landings would be the same as the status quo in the short- and long-term. Fishermen would be expected to operate in the same manner as the status quo in the short-term. However, this alternative suite could have minor negative economic impacts on fishermen if fishing effort increases for non-blacknose SCS. The fishery has never filled the entire quota established for the fishery in 2010, but that could change with a smaller regional quota and if fishermen are displaced from other fisheries.

Under Alternative Suite A2, the quota linkages could have short and long-term moderate adverse economic impacts. Quota linkages are explicitly designed to concurrently close multiple shark quotas, regardless of whether all the linked quotas are filled. This provides protection from exceeding the quota by incidental capture where a directed fishery has been closed because it filled its quota, but it could also preclude fishermen from harvesting the entirety of each of the linked quotas. A quantitative analysis of the economic impact is not possible without comparing the rates of hammerhead shark, blacktip shark, and aggregated LCS catch and without knowing the extent to which fishermen can avoid hammerhead sharks because. If fisherman are unable to sufficiently avoid hammerhead sharks the quotas will likely close much sooner, but if they can successfully avoid hammerhead sharks, it is likely that

they will be able to fully utilize the other shark quotas. However, a qualitative analysis can provide insight on possible adverse socioeconomic impacts. Under Alternative Suite A2, both the hammerhead shark and aggregated LCS quotas would close when landings of either reaches or is expected to reach 80 percent of the quota. If hammerhead shark landings reach 80 percent of the quota, the aggregated LCS fishery would close, regardless of what portion of the quota has been filled. If the entire aggregate LCS quota has not been harvested, the fishery would not realize the full level of revenues possible under the established quota. A similar situation could occur in the Gulf of Mexico under Alternative Suite A2 where both the hammerhead shark and blacktip shark quotas would be linked to the aggregated LCS quota. The blacknose shark and non-blacknose SCS socioeconomic impacts would be the same as the LCS since there would be similar scenarios with the quota linkage by species and region. In addition, we would allow inseason quota transfer between non-blacknose SCS regions. This would have minor beneficial economic impacts for the fishery as the non-blacknose SCS quota would not be the limiting factor. Consequently, the quota linkages proposed under Alternative Suite A2 could have moderate adverse economic impacts.

Under Alternative Suite A2, we would increase the current recreational size limit for all authorized shark species to 96 inches FL, implement mandatory reporting of landed hammerhead sharks, and provide identification guide for all of the prohibition shark species. Implementation of these management measures would significantly alter the way tournaments and charter vessels operate, or reduce opportunity and demand for recreational shark fishing, could create adverse economic impacts. However, these measures would help the stocks rebuild and possibly increase recreational fisheries opportunities in the future.

When taken as a whole, Alternative Suite A2 would likely have direct short and long-term minor adverse economic impacts. These impacts would mostly affect fishermen targeting scalloped hammerhead and blacknose sharks since the quotas would be reduced. These fishermen are likely to adapt to the new regulations by fishing in other fisheries, or change their fishing habitats. Recreational management measures would increase the size limit and cause fishermen to catch and release more sharks. Neutral economic impacts are expected for fishermen targeting the aggregated LCS and non-blacknose SCS complexes since the new proposed quotas are based on the average landings for each species. Furthermore, quota linkages would affect the economic impacts based on the fishing rate of each linked shark quota. When we compare the economic impacts of Alternative Suite A2 to the other alternative suites, this alternative suite would cause fewer impacts overall to fishermen. For this reason and the ecological reasons previously discussed, we prefer this alternative suite at this time.

Alternative Suite A3 would establish new species complexes by regions, adjust LCS and SCS quotas, prohibit retention of commercial blacknose sharks in the Gulf of Mexico, and increase the hammerhead shark minimum recreational size to 96″ FL. Specifically, for hammerhead sharks, we would remove hammerhead sharks from the non-sandbar LCS quota and establish a separate hammerhead shark quota for the three species of large hammerhead sharks (scalloped, smooth, and great hammerhead sharks), similar to the action proposed under Alternative Suite A2. In contrast to Alternative Suite A2, however, the hammerhead shark quota under Alternative Suite A3 would not be split between the Atlantic and Gulf of Mexico, leaving one hammerhead shark quota across both regions. Although this difference could create some administrative difficulties, it is unlikely to alter the economic impacts from Alternative Suite A2's minor adverse economic impacts. Alternative B2 would have split the quota between the two regions based on historical landings; therefore, under Alternative Suite A3, a similar breakdown of landings would likely occur.

Non-sandbar LCS complex management measures under Alternative Suite A3 are identical to those under Alternative Suite A2. See the LCS complex section of Alternative Suite A2 for more details on impacts.

Alternative Suite A3 would create a separate Gulf of Mexico blacktip shark total allowable catch and commercial quota, by increasing the total allowable catch calculated in Alternative Suite A2 by 30 percent, which is based on the current landings percentage of Gulf of Mexico blacktip sharks. This would result in a commercial quota of 380.7 mt dw (839,291 lb dw), which is a 48 percent increase from average Gulf of Mexico blacktip shark landings from 2008–2011 (256.7 mt dw; 565,921 lb dw). This is an increase of $314,376 when compared to current landings. From 2008 through 2011, approximately 41 vessels with directed shark permits had blacktip shark landings, while approximately 4 vessels with incidental shark permits had blacktip shark landings in the Gulf of Mexico. Spread amongst the directed and incidental shark permit holders that landed blacktip shark, the average shark permit holder could potentially land up to $6,986 in additional annual revenue from Gulf of Mexico blacktip sharks.

The blacknose shark management measures under Alternative Suite A3 are identical to those under Alternative Suite A2 for the Atlantic region. Under Alternative Suite A3, we would prohibit blacknose sharks in the commercial and recreational shark fisheries in the Gulf of Mexico region and work with the Gulf of Mexico Fishery Management Council to reduce the mortality of blacknose sharks to attain the total allowable catch of 11,900 sharks. Currently, the average annual gross revenues for blacknose shark landings for the entire commercial fishery are $3,273, but would be reduced to $0 under this alternative. Under Alternative Suite A3, lost revenues would lead to moderate direct adverse economic impacts for the 8 directed shark and the 2 incidental shark permits that land blacknose sharks in the Gulf of Mexico.

Alternative Suite A3 would keep the non-blacknose SCS complex and quota as status quo with one regional quota of 221.6 mt dw (488,539 lb dw). There would be neutral economic impacts to shark permit holders.

Under Alternative Suite A3, no quota linkages would be implemented. All shark quotas would open and close independently of each other. Quota linkages can lead to closures of quotas that are not yet filled if quotas of other sharks caught concurrently are closed. If each quota opens and closes independently, each quota would have a higher likelihood of being filled, allowing for full realization of potential revenues. Thus, the lack of quota linkages under this alternative suite could lead to minor beneficial economic impacts. However, this could result in adverse ecological impacts for overfished shark species.

Alternative Suite A3 would increase the minimum recreational size for all hammerhead sharks (great, smooth, and scalloped) to 78 inches FL, provide identification guide for all of the prohibition shark species, and prohibit the retention of blacknose sharks in the recreational fishery. Therefore, this alternative would likely result in minor adverse economic impacts for charter/head boat operators and tournaments

that target hammerhead and blacknose sharks because of the reduced incentive to recreationally fish for these species. Increasing the recreational size limit for hammerhead sharks would ensure that only larger or ''trophy'' sized sharks would be landed.

When taken as a whole, Alternative Suite A3 would likely have moderate adverse economic impacts on small entities. These impacts would mostly affect fishermen catching hammerhead and blacknose sharks. The hammerhead shark quota would be based on the scalloped hammerhead shark total allowable catch and would reduce all hammerhead shark landings. The blacknose shark quota in the Atlantic would be reduced, while the Gulf of Mexico blacknose shark retention would be prohibited. Recreational management measures would affect fishermen who catch hammerhead sharks since the increased size limit would result in more hammerhead sharks having to be released and blacknose sharks as blacknose sharks would be prohibited under this alternative suite. In addition, no quota linkages would allow fishermen to fully harvest all of the quotas. While this alternative suite might have more beneficial direct economic impacts than Alternative Suite A2, the ecological impacts would be adverse and would not achieve the rebuilding plan targets for these stocks.

Alternative Suite A4 would establish new species complexes by regions, adjust LCS and SCS quotas, prohibit retention of commercial blacknose sharks in the Gulf of Mexico, link appropriate quotas, and establish a species-specific recreational shark quota. Specifically, for scalloped hammerhead sharks, Alternative Suite A4 would use the scalloped hammerhead shark total allowable catch established in the stock assessment to create separate Atlantic and Gulf of Mexico quotas applicable to only scalloped hammerheads sharks rather than all three large hammerhead sharks as proposed under Alternative Suite A2. The proposed quotas in both regions are higher than current landings. Therefore, we expect neutral economic impacts. Great and smooth hammerhead sharks could continue to be landed at current levels under the aggregated LCS quota.

For LCS, Alternative Suite A4 would establish new aggregated LCS quotas in the Atlantic and Gulf of Mexico using a similar methodology to that outlined in Alternative Suite A2, except for one difference. While Alternative Suite A2 would calculate each species' contribution to total non-sandbar LCS landings using average annual landings between 2008 and 2011, Alternative Suite A4 would instead calculate each species' contribution to total non-sandbar LCS landings using the year with the highest annual landings for the complex between 2008 and 2011 for each species. The year with the highest non-sandbar LCS landings in the Atlantic was 2008 and the highest in the Gulf of Mexico was 2011. This deviation in method does not substantially change the quotas; therefore, economic impacts are unchanged from Alternative Suite A2.

Alternative Suite A4 would establish a separate Gulf of Mexico blacktip shark quota of 1,992.6 mt dw based upon projections produced by stock assessment scientists. The quota of 1,992.6 mt dw is more than five times the current Gulf of Mexico non-sandbar LCS quota. Ex-vessel revenue resulting from this quota could increase by up to $4,427,322 across the entire Gulf of Mexico blacktip. Spread amongst the 45 directed and incidental shark permit holders that landed blacktip shark, the average shark permit holder could potentially land up to $98,385 in additional annual revenue from Gulf of Mexico blacktip sharks. However, it is unlikely that this value would be realized. The Gulf of Mexico blacktip shark quota would be linked to the Gulf of Mexico aggregated LCS and scalloped hammerhead shark quotas. All three of these quotas would close when one reached, or was expected to reach, 80 percent of the respective quota. Either the aggregated or scalloped hammerhead quota would be likely to be filled before the large blacktip quota was filled. Regardless, the increase blacktip quota would allow for increased fishing opportunities and positive impacts to small entities.

Under Alternative Suite A4, the mortality of blacknose sharks in the Atlantic region will be reduced by at least 61 percent in the Atlantic region as recommended in the stock assessment. All of the economic impacts resulting from this portion of the alternative suite are the same as those analyzed in Alternative Suite A2.

For the Gulf of Mexico, we would establish a total allowable catch of 9,792 blacknose sharks. As described in Alternative Suite A3, we would prohibit blacknose sharks in any shark fishery in the Gulf of Mexico in order to meet this proposed total allowable catch given the blacknose mortality in non-HMS fisheries in the Gulf of Mexico. We would also work with the Gulf of Mexico Fishery Management Council to reduce bycatch mortality of blacknose sharks in the shrimp trawl and reef fish fisheries. The average annual gross revenues for blacknose shark landings for the commercial fishery are $3,273, but would be reduced to $0 under this alternative. Under Alternative Suite A4, it is anticipated that there would be moderate adverse economic impacts. In the short-term lost revenues would be moderate for the 8 directed shark and the 2 incidental shark permits that land blacknose sharks in the Gulf of Mexico. Over the long-term the economic impact would be moderate, as the other management measures could be implemented to reduce the discards of blacknose sharks.

For non-sandbar SCS, under Alternative Suite A4, we would establish regional quotas for non-blacknose SCS by dividing the current quota in half. This alternative would cause significant adverse economic impacts for shark fishermen in the Atlantic region. Alternative Suite A4 would restrict fishing of non-blacknose in the Atlantic to 244,269.5 lb dw and potentially reduce current annual revenue by $253,411. In the Gulf of Mexico, this alternative would cause beneficial economic impacts for non-blacknose SCS fishery as the quota would be larger than their average landings. This larger quota could potentially increase gross revenues by $259,157. However, this alternative suite would cause adverse impacts on blacknose sharks since current fishing and bycatch levels of blacknose sharks could increase. Since Alternative Suite A4 would not reduce blacknose shark mortality in the Gulf of Mexico and decrease the Atlantic non-blacknose SCS fishing levels, we do not prefer this alternative at this time.

Quota linkages under Alternative Suite A4 are nearly identical to those under Alternative Suite A2, except that instead of linking the hammerhead quotas to the aggregated LCS quota in the Atlantic and Gulf of Mexico, the scalloped hammerhead quota would be linked instead. This deviation should not change the expected economic impacts. In addition, we would link the Atlantic blacknose and non-blacknose SCS quotas and Gulf of Mexico blacknose shark and non-blacknose SCS quotas, and allow inseason quota transfer between the non-blacknose SCS regions. The quota linkages proposed under Alternative Suite A4 would be expected to have moderate adverse economic impacts.

Under Alternative Suite A4, we would establish species-specific recreational shark quotas and prohibit the recreational retention of blacknose sharks. This alternative would cause short-term neutral economic impacts for recreational fishermen as it would restrict landings to current levels. In the

long-term, this alternative could have minor adverse socioeconomic impacts if the species-specific recreational shark quotas are exceeded and we implement additional management measures. This would have a greater effect on tournaments and charter vessels that target sharks.

Overall, Alternative Suite A4 would likely have direct short and long-term minor adverse economic impacts. These impacts would mostly affect fishermen catching blacknose sharks. The blacknose shark quota in the Atlantic would be reduced, while the Gulf of Mexico blacknose shark retention would be prohibited to meet the total allowable catch. Recreational management measures would affect fishermen who retain sharks since we would implement a species-specific quota for the recreational fishery. Neutral economic impacts are expected for recreational and commercial fishermen targeting scalloped hammerhead sharks, aggregated LCS and non-blacknose SCS. While this alternative suite might have minor adverse economic impacts, there is the potential for more adverse economic impacts if quotas are exceeded in the future. Although this alternative suite would allow for the highest Gulf of Mexico blacktip shark commercial quota, it is based on base model projections produced by stock assessment scientists after the formal stock assessment process. These stock assessment scientists felt that the projections had a high degree of uncertainty in the base model used to create the projections. Furthermore, these projections were developed outside of the standard stock assessment process and were not reviewed. In addition to the uncertainty in the model, the blacktip shark quota proposed under this alternative suite could lead to increased bycatch of other species due to increased fishing effort. For all these reasons, and because of the potential for additional adverse socioeconomic impacts if quotas are exceeded, we do not prefer this alternative suite at this time.

Alternative Suite A5 would close all commercial and recreational shark fisheries. Currently, scalloped hammerhead sharks provide fishery-wide revenue of $75,633 (as discussed under Alternative Suite A1), which would be lost under this alternative suite. Consequently, the scalloped hammerhead portion of Alternative Suite A5 would be expected to only have moderate adverse direct economic impacts. Closure of the non-sandbar LCS fishery would have significant adverse direct economic impacts. Many fishermen rely on the non-sandbar LCS fishery for a large portion of annual earnings. A closure of the fishery would significantly impact the livelihoods of these fishermen. Currently, the non-sandbar LCS fishery provides fishery-wide revenue of $1,781,996 (as discussed under Alternative Suite A1), which would be lost under this alternative suite. Currently, Gulf of Mexico blacktip sharks provide fishery-wide revenue of $624,496 (as discussed under Alternative Suite A1), which would be lost under this alternative suite and reduce the annual revenue of the approximately 45 direct and incidental shark permit holders that had blacktip shark landings by $13,878 per permit holder. Consequently, the Gulf of Mexico blacktip shark portion of Alternative Suite A5 would be expected to have significant adverse economic impacts. Alternative Suite A5 would close the entire blacknose commercial shark fishery, prohibiting the landing of any blacknose sharks. This alternative would have significant, adverse, economic impacts on fishermen with directed and incidental shark permits that fish for blacknose: the 29 directed shark permit holders, and the 4 incidental shark permit holders that had blacknose shark landings during 2008 through 2011. The result would be a loss of average annual gross revenues of $35,797 from blacknose shark landings. While this alternative could reduce blacknose mortality below the commercial allowance required to rebuild blacknose shark stocks, it would also drastically reduce non-blacknose SCS landings, and have the largest social and economic impacts of all the alternatives considered. This action would require fishermen to leave the closed shark fisheries altogether. Alternative Suite A5 would close the entire SCS commercial shark fishery, prohibiting the landing of any SCS, including finetooth, Atlantic sharpnose, and bonnethead. This alternative would have significant, adverse, socioeconomic impacts on fishermen with directed and incidental shark permits that fish for non-blacknose SCS, the 39 directed shark permit holders, and the 13 incidental shark permit holders that had non-blacknose SCS landings since Amendment 3. The result would be a loss of average annual gross revenues of $544,954 from non-blacknose SCS landings. This action would require fishermen to leave the closed shark fisheries altogether. Alternative Suite A5 would close all federally managed Atlantic recreational and commercial shark fisheries, obviating the need for quota linkages. The quota linkages portion of Alternative Suite A5 would likely result in no additional economic impacts on small entities. Alternative Suite A5 would have direct significant adverse socioeconomic impacts because it would prohibit the retention of all sharks for recreational anglers. This would have a significant effect on tournaments and charter vessels that target sharks. Alternative Suite A5 would likely have significant adverse economic impacts because recreational and commercial shark fishing in the Atlantic, Gulf of Mexico and Caribbean would be prohibited. Because other alternatives should meet the objectives of this Amendment with less significant adverse socioeconomic impacts, we do not prefer this alternative suite at this time.

As explained above, in addition to Alternatives Suites A1 through B5, we also considered a second category of alternatives (Alternatives B1 through B7) that involve pelagic longline and bottom longline effort modifications, including time/area closures, bycatch caps, modification to the existing bottom longline shark research fishery, and gear restrictions. Alternative B1 is the no action alternative in this group and would maintain existing time/area closures and would not implement any new time/area closures. Under this alternative, maintaining the existing closures and not implementing additional time area closures would have neutral, direct economic impacts in the short term. Vessels would continue to operate subject to existing regulations, including time/area closures, therefore no new economic impacts would be associated with maintaining the status quo. However, in the long-term, if additional measures to prevent overfishing of dusky sharks and allow populations to rebuild were implemented, including time/area closures, minor to moderate adverse economic impacts could be experienced by participants in the PLL and BLL fisheries.

Alternative B2 would modify the existing Charleston Bump Pelagic Longline time/area closure by extending the timing of the closure through May 31 every year. Closing the entire Charleston Bump during the month of May would result in direct, moderate adverse economic impacts in the short and long-term. On average from 2008 to 2010, 27 vessels fished in the proposed closure and would be affected. The annual average reduction in revenues per affected vessel as a result of the closure would be $14,292, after adjusting for redistribution of effort into open areas of the South Atlantic Bight Statistical reporting area.

Alternative B3 would create additional time/area closures based on dusky shark interaction hotspot areas. This is the preferred alternative and under this alternative, we consider several different sub-alternatives, all of which are preferred. Alternative B3a would prohibit the use of pelagic longline gear in HMS fisheries in a portion of the Charleston Bump during the month of May. This sub-alternative would result in direct, minor adverse economic impacts in the short and long-term, although this would be offset by a potential increase in dolphin revenues. On average from 2008 to 2010, 17 vessels fished in the proposed closure and would be affected. The annual average reduction in revenues per affected vessel as a result of the closure would be $1,074, after adjusting for redistribution of effort into open areas of the Charleston Bump closed area.

Alternative B3b would prohibit the use of pelagic longline gear in HMS fisheries in the vicinity of the Cape Hatteras Special Research/Hatteras Shelf Area during the month of May. This sub-alternative would result in direct, minor adverse economic impacts in the short and long-term. On average from 2008 to 2010, 10 vessels fished in the proposed closure during that month and would be affected. The annual average reduction in revenues per affected vessel as a result of the closure would be $2,982, after adjusting for redistribution of effort into open areas of the Mid Atlantic Bight Statistical reporting area.

Alternative B3c would prohibit the use of pelagic longline gear in HMS fisheries in the vicinity of the Cape Hatteras Special Research/Hatteras Shelf Area during the month of June. This sub-alternative would result in direct, minor adverse economic impacts in the short and long-term. On average from 2008 to 2010, 11 vessels fished in the proposed closure and would be affected. The annual average reduction in revenues per affected vessel as a result of the closure would be $2,559, after adjusting for redistribution of effort into open areas of the Mid Atlantic Bight Statistical reporting area.

Alternative B3d would prohibit the use of pelagic longline gear in HMS fisheries in the vicinity of the Cape Hatteras Special Research/Hatteras Shelf Area during the month of November. This sub-alternative would result in direct, minor adverse economic impacts in the short and long-term. On average from 2008 to 2010, 9 vessels fished in the proposed closure and would be affected. The annual average reduction in revenues per affected vessel as a result of the closure would be $4,177, after adjusting for redistribution of effort into open areas of the Mid Atlantic Bight Statistical reporting area.

Alternative B3e would prohibit the use of pelagic longline gear in HMS fisheries in three distinct closures in the vicinity of the Mid Atlantic Bight Canyons during the month of October. This sub-alternative would result in neutral direct ecological impacts in the short and long-term. On average from 2008 to 2010, 24 vessels fished in the proposed closure and would be affected. The annual average increase in revenues per affected vessel as a result of the closure would be +$5,707, after adjusting for redistribution of effort into open areas of the Mid Atlantic Bight Statistical reporting area.

Alternative B3f would prohibit the use of pelagic longline gear in HMS fisheries in an area in the vicinity of the existing Northeastern closed area during the month of July. This sub-alternative would result in direct, moderate adverse economic impacts in the short term becoming minor in the long-term as fishing vessels adjust to fishing in different areas during the proposed closure. On average from 2008 to 2010, 15 vessels fished in the proposed closure and would be affected. The annual average reduction in revenues per vessel as a result of the closure would be −$12,518 after adjusting for redistribution of effort into open areas of the Northeast Coastal Statistical reporting area.

Alternative B3g would prohibit the use of pelagic longline gear in HMS fisheries in an area in the vicinity of the existing Northeastern closed area during the month of August. This sub-alternative would result in direct, moderate adverse economic impacts in the short term becoming minor in the long-term as fishing vessels adjust to fishing in different areas during the proposed closure. On average from 2008 to 2010, 15 vessels fished in the proposed closure and would be affected. The annual average reduction in revenues per affected vessel as a result of the closure would be −$7,557, after adjusting for redistribution of effort into open areas of the Northeast Coastal Statistical reporting area.

Alternative B3h would prohibit the use of pelagic longline gear in HMS fisheries in a portion of the Charleston Bump during the month of November. This sub-alternative would result in direct, moderate adverse economic impacts in the short-term becoming minor in the long-term as fishing vessels adjust to fishing in different areas during the proposed closure. On average from 2008 to 2010, 12 vessels fished in the proposed closure and would be affected. The annual average reduction in revenues per vessel as a result of the closure would be $8,954, after adjusting for redistribution of effort into open areas of the Charleston Bump area.

Under Alternative B4, we would implement dusky shark bycatch caps in the pelagic longline fishery. Implementing bycatch caps in conjunction with the proposed time/area closures described in Alternative B3 would result in direct, minor economic impacts in the short and long-term consistent with the economic impacts described for each of the hotspot closed areas included in Alternative B3. The economic impacts of Alternative B4 would be less adverse in the short-term than implementing the preferred time/area closures because bycatch caps would allow a limited amount of fishing to continue within the time/area closures until a bycatch cap was reached. The exact economic impacts of implementing bycatch caps would depend on the number of vessels authorized to fish in the hotspot areas (vessels selected for observer coverage and carrying an observer on an annual basis and the number of trips that occur within each hotspot areas before the bycatch cap is met. After the cap is met, economic impacts would be more pronounced because of the fact that the hotspot area would close for the remainder of the three year period.

Between 2008 and 2010, a total of 72 unique vessels fished in the proposed hotspot closed areas. The number of vessels that would be authorized to fish in these areas would decrease as a result of selecting this alternative, however, a limited number of vessels would still be authorized to fish in the hotspot areas with an observer therefore the economic impacts of this alternative would be more adverse than the status quo (Alternative B1) and less adverse than the preferred alternative (Alternative B3).

Under Alternative B5, we would modify the timing of the existing mid-Atlantic shark closed area to December 15 to July 15. This is a preferred alternative. Under Alternative B2, we would modify the timing of the existing mid-Atlantic shark closed area to coincide with the season opening dates in the Atlantic States Marine Fisheries Commission Shark Plan. This is anticipated to have direct, minor, socioeconomic impacts in the short- and long-term because fishermen in North Carolina would have access to adjacent Federal waters at the same that state waters open, consistent with the Atlantic States Marine Fisheries Commission Shark Plan. In the short-

term, revenue gain would be minor for the 17 directed shark permit and 12 incidental shark permit holders along with state-water fishermen that might normally fish in the mid-Atlantic closed area. These North Carolina fishermen would be able to fish sooner than in previous years, but the adjustment to the starting date of the closure would have very minor impacts. In the past four years, the non-sandbar LCS fishery, which primarily uses bottom longline gear, has only been open beyond December 15th once. This occurred in 2008 when the fishery opened in late July under the current fishing regulations. Since then, the non-sandbar LCS fishery has closed before December 15th. Over the long-term, the economic impact would be minor, as the fishermen are likely to adapt to the new regulations. Because the economic impacts of this alternative would have direct, minor economic benefits and neutral ecological impacts, we prefer this alternative suite at this time.

Under Alternative B6, we would modify the existing bottom longline shark research fishery to ensure that dusky shark interactions are reduced. This alternative is also preferred. Under Alternative B6, we would implement measures in the shark research fishery to reduce the interactions with dusky sharks. This alternative would result in direct, minor adverse socioeconomic impacts in the short and long term for fishermen participating in the shark research fishery because of additional restrictions placed on vessels participating in the shark research fishery, including, but not limited to: Limitations on soak time, limits on the number of hooks deployed per set, prohibiting participants from deploying bottom longline gear at times and in areas where elevated levels of dusky shark interactions have been observed, and/or stopping the shark research fishery for the year if a certain number of dusky shark interactions is reached. Fishermen participating in the research fishery are targeting sandbar sharks; however, dusky sharks are often caught as bycatch when targeting sandbar sharks. These measures could change the way that the shark research fishery operates, which could result in direct, long-term, minor adverse socioeconomic impacts. However, it is anticipated that vessels will continue to want to participate in the shark research fishery because these vessels have the exclusive privilege of being able to target and harvest sandbar sharks which are desired because of their high fin value. It is likely that these measures would help sandbar sharks rebuild more quickly and increase commercial fisheries opportunities in the future. Indirect impacts, in the short and long term would be minor and adverse due to reduced revenues for fish dealers and other support industries that may occur if fishing effort is curtailed in the shark research fishery.

Alternative B7 would prohibit the use of pelagic longline and bottom longline gear in Atlantic HMS fisheries. Closing the pelagic and bottom longline fisheries would result in direct, significant adverse economic impacts in the short and long-term for longline vessel owners, operators, and crew. In 2010, there were 242 tuna longline permits (pelagic longline) and 217 shark directed permit holders (bottom longline) that would be affected. We estimate that between 2008 and 2011, approximately 169 vessels with directed shark permits landed sharks and 116 pelagic longline vessels made a set in 2011. In 2010, the pelagic and bottom longline fisheries had revenues of $27,026,120, which equates to approximately 70 percent of the total revenues for all commercial HMS fisheries. Assuming these revenues are distributed evenly among the 285 active vessels, the estimated annual reduction in revenues per vessel would be approximately $94,828. Given that other alternatives meet the objectives of this rule at significantly lower economic impacts to small entities, this alternative is not preferred.

List of Subjects in 50 CFR Part 635

Fisheries, Fishing, Fishing vessels, Foreign relations, Imports, Penalties, Reporting and recordkeeping requirements, Treaties.

Dated: November 14, 2012.

Alan D. Risenhoover,

Director, Office of Sustainable Fisheries, performing the functions and duties of the Deputy Assistant Administrator for Regulatory Programs, National Marine Fisheries Service.

For the reasons set out in the preamble, 50 CFR part 635 is proposed to be amended as follows:

PART 635—ATLANTIC HIGHLY MIGRATORY SPECIES

1. The authority citation for part 635 continues to read as follows:

Authority: 16 U.S.C. 971 *et seq.;* 16 U.S.C. 1801 *et seq.*

2. In § 635.2:

a. Remove the definitions of ''Non-ridgeback large coastal shark,'' ''Non-sandbar LCS,'' and ''Ridgeback large coastal shark''; and

b. Add the definitions of ''Atlantic Aggregated LCS,'' ''Canyons Hotspot closed area,'' ''Charleston Bump May Hotspot closed area,'' ''Charleston Bump November Hotspot closed area,'' ''FL (fork length),'' ''Gulf of Mexico Aggregated LCS,'' ''Hammerhead Shark(s),'' ''Hatteras Shelf Hotspot closed area,'' ''Research LCS,'' and ''Southern Georges Bank Hotspot closed'' in alphabetical order to read as follows:

§ 635.2 Definitions.

* * * * *

Atlantic Aggregated LCS means one of the following species, or parts thereof, as listed in Table 1 of Appendix A of this part: Atlantic blacktip, bull, lemon, nurse, silky, spinner, and tiger.

* * * * *

Canyons Hotspot closed area means a closed area comprised of three separate rectangular areas of the Atlantic Ocean. Each of these areas is bounded by straight lines connecting the following coordinates in the order stated:

(1) South area: 37° 30′ N. Lat., 74° 50′ W. Long.; 37° 30′ N. Lat., 74° 20′ W. Long.; 36° 30′ N. Lat., 74° 20′ W. Long.; 36° 30′ N. Lat., 74° 50′ W. Long; 37° 30′ N. Lat., 74° 50′ W. Long.

(2) Middle area: 39° 10′ N. Lat., 73° 20′ W. Long.; 39° 10′ N. Lat., 72° 40′ W. Long.; 38° 40′ N. Lat., 72° 40′ W. Long; 38° 40′ N. Lat., 74° 50′ W. Long; 39° 10′ N. Lat., 73° 20′ W. Long.

(3) North area: 40° 00′ N. Lat., 72° 00′ W. Long.; 40° 00′ N. Lat., 70° 30′ W. Long.; 39° 30′ N. Lat., 70° 30′ W. Long.; 39° 30′ N. Lat., 72° 00′ W. Long; 40° 00′ N. Lat., 72° 00′ W. Long.

* * * * *

Charleston Bump May Hotspot closed area means a closed area comprised of the rectangular area of the Atlantic Ocean bounded by straight lines connecting the following coordinates in the order stated: 31°30′ N. Lat., 80°00′ W. Long.; 31°30′ N. Lat., 78°20′ W. Long.; 31°00′ N. Lat., 78°20′ W. Long.; 31°00′ N. Lat., 80°00′ W. Long.; 31°30′ N. Lat., 80°00′ W. Long.

Charleston Bump November Hotspot closed area means a closed area comprised of the polygon area of the Atlantic Ocean bounded by straight lines connecting the following coordinates in the order stated: 31°10′ N. Lat., 79°20′ W. Long.; 31°10′ N. Lat., 79°10′ W. Long.; 31°20′ N. Lat., 79°10′ W. Long.; 31°20′ N. Lat., 78°50′ W. Long.; 31°00′ N. Lat., 78°50′ W. Long.; 31°00′ N. Lat., 79°20′ W. Long.; 31°10′ N. Lat., 79°20′ W. Long.

* * * * *

FL (fork length) means the straight line measurement along the length of

the fish from the tip of the upper jaw to the fork of the tail.

* * * * *

Gulf of Mexico Aggregated LCS means one of the following species, or parts thereof, as listed in Table 1 of appendix A of this part: bull, lemon, nurse, silky, spinner, and tiger.

* * * * *

Hammerhead Shark(s) means great, scalloped, and smooth hammerhead shark species, or parts thereof, as listed in Table 1 in Appendix A of this part.

* * * * *

Hatteras Shelf Hotspot closed area means a closed area comprised of the rectangular area of the Atlantic Ocean bounded by straight lines connecting the following coordinates in the area stated: 36°10′ N. Lat., 75°00′ W. Long.; 36°10′ N. Lat., 74°40′ W. Long.; 35°10′ N. Lat., 74°40′ W. Long.; 35°10′ N. Lat., 75°00′ W. Long.; 36°10′ N. Lat., 75°00′ W. Long.

* * * * *

Research LCS means one of the species, or part thereof, listed under heading A of Table 1 in Appendix A of this part, other than the sandbar shark.

* * * * *

Southern Georges Bank Hotspot closed area means a closed area comprised of the parallelogram shaped area of the Atlantic Ocean bounded by straight lines connecting the following coordinates in the area stated: 40°50′ N. Lat., 68°50′ W. Long.; 40°50′ N. Lat., 66°30′ W. Long.; 39°40′ N. Lat., 67°40′ W. Long.; 39°40′ N. Lat., 70°00′ W. Long.; 40°50′ N. Lat., 68°50′ W. Long.

* * * * *

3. In § 635.5, introductory paragraph (c) and paragraphs (c)(1) and (c)(2) are revised to read as follows:

§ 635.5 Recordkeeping and reporting.

* * * * *

(c) *Anglers.* All bluefin tuna, billfish, North Atlantic swordfish, and hammerhead shark non-tournament landings must be reported as specified under paragraphs (c)(1) or (c)(2) of this section, unless an alternative recreational catch reporting system has been established as specified under paragraph (c)(3) of this section. Tournament landings must be reported as specified under paragraph (d) of this section.

(1) *Bluefin tuna.* The owner of a vessel permitted, or required to be permitted, in the Atlantic HMS Angling or Atlantic HMS Charter/Headboat category must report all BFT landings under the Angling category quota designated at § 635.27(a) through the NMFS automated landings reporting system within 24 hours of the landing. Such reports may be made by calling 1–888–872–8862 or by submitting the required information over the Internet at: *www.hmspermits.gov.*

(2) The owner, or the owner's designee, of a vessel permitted, or required to be permitted, in the Atlantic HMS Angling or Atlantic HMS Charter/Headboat category must report all non-tournament landings of Atlantic blue marlin, Atlantic white marlin, roundscale spearfish, and Atlantic sailfish, and all non-tournament and non-commercial landings of North Atlantic swordfish and hammerhead sharks to NMFS by telephone to a number designated by NMFS, or electronically via the internet to an internet Web site designated by NMFS, or by other means as specified by NMFS, within 24 hours of that landing. For telephone landing reports, the owner, or the owner's designee, must provide a contact phone number so that a NMFS designee can call the vessel owner, or the owner's designee, for follow up questions and to confirm the reported landing. Regardless of how submitted, landing reports submitted to NMFS are not complete unless the vessel owner, or the owner's designee, has received a confirmation number from NMFS or a NMFS designee.

* * * * *

4. In § 635.20, paragraphs (a) and (e)(2) are revised to read as follows:

§ 635.20 Size limits.

(a) *General.* The CFL will be the sole criterion for determining the size and/or size class of whole (head on) Atlantic tunas.

* * * * *

(e) * * *

(2) All sharks landed under the recreational retention limits specified at § 635.22(c)(2) must be at least 96 inches (243.8 cm) FL.

* * * * *

5. In § 635.21:

a. Remove the introductory paragraph; and

b. Revise introductory paragraph (c), paragraph (c)(1)(i), introductory paragraph (c)(2), paragraphs (c)(2)(i) and (ii), introductory paragraph (c)(5)(iii)(c), introductory paragraph (d), and paragraphs (d)(1)(i) and (d)(4) to read as follows:

§ 635.21 Gear operation and deployment restrictions.

* * * * *

(c) *Pelagic longlines.* For purposes of this part, a vessel is considered to have pelagic longline gear on board when a power-operated longline hauler, a mainline, floats capable of supporting the mainline, and leaders (gangions) with hooks are on board. Removal of any one of these elements constitutes removal of pelagic longline gear. If a vessel issued a permit under this part is in a closed area designated under paragraph (c)(2) of this section with pelagic longline gear on board, it is a rebuttable presumption that fish on board such vessel were taken with pelagic longline gear in the closed area except where such possession is aboard a vessel transiting a closed area with fishing gear stowed appropriately. ''In transit'' or ''transiting'' means non-stop progression through an area. Longline gear is stowed appropriately as long as all gangions and hooks are disconnected from the mainline and are stowed on or below deck, hooks are not baited, and all buoys are disconnected from the mainline and drum (buoys may remain on deck).

(1) * * *

(i) Is in a closed area designated under paragraph (c)(2) of this section with bottom longline gear onboard, and is not transiting such closed area and does not have with fishing gear stowed appropriately as defined above, the vessel may not, at any time, possess or land any pelagic species listed in table 2 of appendix A to this part in excess of 5 percent, by weight, of the total weight of pelagic and demersal species possessed or landed, that are listed in tables 2 and 3 of appendix A to this part.

* * * * *

(2) If pelagic longline gear is on board a vessel issued a permit under this part, persons aboard that vessel may not fish or deploy any type of fishing gear:

(i) In the following month-long closures every year: the Charleston Bump May Hotspot closed area in May; Northeastern United States closed area in June; the Canyons Hotspot closed area in October; the Hatteras Shelf Hotspot closed area in November; and the Charleston Bump November Hotspot closed area in November;

(ii) In the following multi-month closures each year: Charleston Bump Hotspot closed area from February through April; the Hatteras Shelf Hotspot closed area in May and June; and the Southern Georges Bank Hotspot closed area in July and August;

* * * * *

(5) * * *

(iii) * * *

(C) *Hook size, type, and bait.* Vessels fishing outside of the Northeast Distant gear restricted area, as defined at § 635.2, that have pelagic longline gear on board, and that have, or are required to have, a limited access swordfish, shark, or tuna longline category permit

for use in the Atlantic Ocean, including the Caribbean Sea and the Gulf of Mexico, are limited, at all times, to possessing on board and/or using only whole finfish and/or squid bait, and the following types and sizes of fishing hooks:

* * * * *

(d) *Bottom longlines.* For the purposes of this part, a vessel is considered to have bottom longline gear on board when a power-operated longline hauler, a mainline, weights and/or anchors capable of maintaining contact between the mainline and the ocean bottom, and leaders (gangions) with hooks are on board. Removal of any one of these elements constitutes removal of bottom longline gear. Bottom longline vessels may have a limited number of floats and/or high flyers onboard for the purposes of marking the location of the gear but removal of these floats does not constitute removal of bottom longline gear. If a vessel issued a permit under this part is in a closed area designated under paragraph (d)(1) of this section with bottom longline gear on board, it is a rebuttable presumption that any fish on board such a vessel were taken with bottom longline in the closed area except where such possession is aboard a vessel transiting a closed area fishing gear stowed appropriately. ''In transit'' or ''transiting'' means non-stop progression through an area. Longline gear is stowed appropriately as long as all gangions and hooks are disconnected from the mainline and are stowed on or below deck, hooks are not baited, and all buoys are disconnected from the mainline and drum (buoys may remain on deck).

(1) * * *

(i) The mid-Atlantic shark closed area from December 15 through July 15 every year;

* * * * *

(4) If a vessel issued or required to be issued a permit under this part is in a closed area designated under paragraph (d)(1) of this section with pelagic longline gear onboard, and is not transiting such closed area and does not have with gear stowed appropriately as defined above, the vessel may not, at any time, possess or land any demersal species listed in Table 3 of Appendix A to this part in excess of 5 percent, by weight, of the total weight of pelagic and demersal species possessed or landed, that are listed in Tables 2 and 3 of Appendix A to this part.

* * * * *

6. In § 635.22, paragraph (c)(2) is revised to read as follows:

§ 635.22 Recreational retention limits.

* * * * *

(c) * * *

(2) Only one shark from the following list may be retained per vessel per trip, subject to the size limits described in § 635.20(e)(2): Atlantic blacktip, Gulf of Mexico blacktip, bull, great hammerhead, scalloped hammerhead, smooth hammerhead, lemon, nurse, spinner, tiger, blue, common thresher, oceanic whitetip, porbeagle, shortfin mako, Atlantic sharpnose, finetooth, Atlantic blacknose, Gulf of Mexico blacknose, and bonnethead.

* * * * *

7. In § 635.24:

a. Remove and reserve paragraph (a)(7); and

b. Revise paragraphs (a)(2), (a)(3), and (a)(4)(ii) to read as follows:

§ 635.24 Commercial retention limits for sharks and swordfish.

* * * * *

(a) * * *

(2) A person who owns or operates a vessel that has been issued a directed LAP for sharks and does not have a valid shark research permit, or a person who owns or operates a vessel that has been issued a directed LAP for sharks and that has been issued a shark research permit but does not have a NMFS-approved observer on board, may retain, possess, or land no more than 36 LCS other than sandbar sharks per vessel per trip if the respective LCS fishery(ies) is open per § 635.27 and § 635.28. Such persons may not retain, possess, or land sandbar sharks.

(3) A person who owns or operates a vessel that has been issued an incidental LAP for sharks and does not have a valid shark research permit, or a person who owns or operates a vessel that has been issued an incidental LAP for sharks and that has been issued a valid shark research permit but does not have a NMFS-approved observer on board, may retain, possess, or land no more than 3 LCS other than sandbar sharks per vessel per trip if the respective LCS fishery(ies) is open per § 635.27 and § 635.28. Such persons may not retain, possess, or land sandbar sharks.

(4) * * *

(ii) A person who owns or operates a vessel that has been issued a directed shark LAP may retain, possess, or land blacknose and non-blacknose SCS if the respective blacknose and non-blacknose SCS fisheries are open per §§ 635.27 and 635.28.

* * * * *

8. In § 635.27, paragraph (b) is revised to read as follows:

§ 635.27 Quotas.

* * * * *

(b) *Sharks*—(1) *Commercial quotas.* The commercial quotas for sharks specified in this section apply to all sharks harvested from the management unit, regardless of where harvested. The base quotas listed below may be adjusted per paragraph (b)(2) of this section. Sharks taken and landed commercially from state waters, even by fishermen without Federal shark permits, must be counted against the commercial quota. Any sharks landed commercially as unclassified will be counted against the appropriate quota based on the species composition calculated from data collected by observers on non-research trips and/or dealer data. No prohibited sharks, including parts or pieces of prohibited sharks, which are listed under heading D of Table 1 of Appendix A to this part, may be retained except as authorized under § 635.32. For the purposes of this section, the boundary between the Gulf of Mexico region and the Atlantic region is defined as a line beginning on the east coast of Florida at the mainland at 25°20.4′ N. lat, proceeding due east. Any water and land to the south and west of that boundary is considered, for the purposes of quota monitoring and setting of quotas, to be within the Gulf of Mexico region. Any water and land to the north and east of that boundary, for the purposes of quota monitoring and setting of quotas, is considered to be within the Atlantic region.

(i) *Sandbar sharks.* The base annual commercial quota for sandbar sharks is 116.6 mt dw. This quota, as adjusted per paragraph (b)(2) of this section, is available only to the owners of commercial shark vessels that have been issued a valid shark research permit and that have a NMFS-approved observer onboard.

(ii) *Atlantic aggregated LCS.* The base annual commercial quota for Atlantic aggregated LCS is 168.2 mt dw. The commercial quota for the Atlantic aggregated LCS, as adjusted per paragraph (b)(2) of this section, applies only to those species of sharks that were caught in the Atlantic region, as defined in paragraph (b)(1) of this section.

(iii) *Gulf of Mexico aggregated LCS.* The base annual commercial quota for Gulf of Mexico aggregated LCS is 157.3 mt dw. The commercial quota for the Gulf of Mexico aggregated LCS, as adjusted per paragraph (b)(2), applies only to those species of sharks that were caught in the Gulf of Mexico region, as defined in paragraph (b)(1) of this section.

(iv) *Research LCS.* The base annual commercial quota for Research LCS is

50 mt dw. This quota, as adjusted per paragraph (b)(2) of this section, is available only to the owners of commercial shark vessels that have been issued a valid shark research permit and that have a NMFS-approved observer onboard.

(v) *Hammerhead sharks.* The base annual commercial quota for all hammerhead sharks is 52.2 mt dw. This quota is split between the regions defined in paragraph (b)(1) of this section as follows: Atlantic region receives 54.2% of the base quota, except as adjusted per paragraph (b)(2) of this section; Gulf of Mexico region receives 45.8% of the base quota, except as adjusted per paragraph (b)(2) of this section. The commercial quota for Atlantic hammerhead sharks applies only to those species of sharks that were caught in the Atlantic region, as defined in paragraph (b)(1) of this section. The commercial quota for Gulf of Mexico hammerhead sharks applies only to those species of sharks that were caught in the Gulf of Mexico region, as defined in paragraph (b)(1) of this section.

(vi) *Gulf of Mexico blacktip sharks.* The base annual commercial quota for Gulf of Mexico blacktip sharks is 256.7 mt dw. The commercial quota for Gulf of Mexico blacktip sharks, as adjusted per paragraph (b)(2) of this section, applies only to those species of sharks that were caught in the Gulf of Mexico region, as defined in paragraph (b)(1) of this section.

(vii) *Non-blacknose small coastal sharks.* The base annual commercial quota for non-blacknose small coastal sharks across all regions is 221.6 mt dw. This quota is split between the regions defined in paragraph (b)(1) of this section as follows: The Atlantic region receives 89.3% of the base quota, except as adjusted per paragraph (b)(2) of this section; the Gulf of Mexico region receives 10.7% of the base quota, except as adjusted per paragraph (b)(2) of this section. The commercial quota for Atlantic non-blacknose SCS applies only to those species of sharks that were caught in the Atlantic region, as defined in paragraph (b)(1) of this section. The commercial quota for Gulf of Mexico non-blacknose SCS applies only to those species of sharks that were caught in the Gulf of Mexico region, as defined in paragraph (b)(1) of this section.

(viii) *Atlantic blacknose sharks.* The base annual commercial quota for Atlantic blacknose sharks is 18 mt dw. The commercial quota for Atlantic blacknose sharks, as adjusted per paragraph (b)(2) of this section, applies only to those species of sharks that were caught in the Atlantic region, as defined in paragraph (b)(1) of this section.

(ix) *Gulf of Mexico blacknose sharks.* The base annual commercial quota for Gulf of Mexico blacknose sharks is 2 mt dw. The commercial quota for Gulf of Mexico blacknose sharks, as adjusted per paragraph (b)(2) of this section, applies only to those species of sharks that were caught in the Gulf of Mexico region, as defined in paragraph (b)(1) of this section.

(x) *Pelagic sharks.* The base annual commercial quotas for pelagic sharks are 273 mt dw for blue sharks, 1.7 mt dw for porbeagle sharks, and 488 mt dw for pelagic sharks other than blue sharks or porbeagle sharks.

(2) *Annual and inseason adjustments of commercial quotas.* NMFS will publish in the **Federal Register** any annual or inseason adjustments to the base annual commercial quotas. The base annual quota will not be available, and the fishery will not open, until any adjustments are published and effective in the **Federal Register**. Within a fishing year or at the start of a fishing year, NMFS may transfer quotas between regions of the same species or management group, as appropriate, based on the criteria in paragraph (b)(1)(i)(C) of this section.

(i) *Annual overharvest adjustments.* Except as noted in this paragraph, if any of the available commercial base or adjusted quotas as described in this section is exceeded in any fishing year, NMFS will deduct an amount equivalent to the overharvest(s) from the base quota the following fishing year or, depending on the level of overharvest(s), NMFS may deduct from the base quota an amount equivalent to the overharvest(s) spread over a number of subsequent fishing years to a maximum of five years. If the blue shark quota is exceeded, NMFS will reduce the annual commercial quota for pelagic sharks by the amount that the blue shark quota is exceeded prior to the start of the next fishing year or, depending on the level of overharvest(s), deduct an amount equivalent to the overharvest(s) spread over a number of subsequent fishing years to a maximum of five years.

(ii) *Annual underharvest adjustments.* Except as noted in this paragraph, if any of the annual base or adjusted quotas as described in this section is not harvested, NMFS may adjust the annual base quota depending on the status of the stock or quota group. If a species or a specific species within a management group is declared to be overfished, to have overfishing occurring, or to have an unknown status, NMFS may not adjust the following fishing year's base quota for any underharvest, and the following fishing year's quota will be equal to the base annual quota. If the species or all species in a management group is not declared to be overfished, to have overfishing occurring, or to have an unknown status, NMFS may increase the following year's base annual quota by an equivalent amount of the underharvest up to 50 percent above the base annual quota. Except as noted below, underharvests are not transferable between regions, species, and/or management groups.

(iii) *Determination criteria for inseason and annual quota transfers between regions.* Inseason and/or annual quota transfers of regional quotas between regions may be conducted only for species or management groups where the species are the same between regions and the quota is split between regions for management purposes and not as a result of a stock assessment. Before making any inseason or annual quota transfer between regions, NMFS will consider the following criteria and other relevant factors:

(A) The usefulness of information obtained from catches in the particular management group for biological sampling and monitoring of the status of the respective shark species and/or management group.

(B) The catches of the particular species and/or management group quota to date and the likelihood of closure of that segment of the fishery if no adjustment is made.

(C) The projected ability of the vessels fishing under the particular species and/or management group quota to harvest the additional amount of corresponding quota before the end of the fishing year.

(D) Effects of the adjustment on the status of all shark species.

(E) Effects of the adjustment on accomplishing the objectives of the fishery management plan.

(F) Variations in seasonal distribution, abundance, or migration patterns of the appropriate shark species and/or management group.

(G) Effects of catch rates in one area precluding vessels in another area from having a reasonable opportunity to harvest a portion of the quota.

(H) Review of dealer reports, daily landing trends, and the availability of the respective shark species and/or management group on the fishing grounds.

(3) *Opening commercial fishing season criteria.* NMFS will file with the Office of the Federal Register for publication notification of the opening dates of the shark fishery for each species and management group. Before making any decisions, NMFS would consider the following criteria and other

relevant factors in establishing the opening dates:

(i) The available annual quotas for the current fishing season for the different species/complexes based on any over- and/or underharvests experienced during the previous commercial shark fishing seasons;

(ii) Estimated season length based on available quota(s) and average weekly catch rates of different species and/or management group from the previous years;

(iii) Length of the season for the different species and/or management group in the previous years and whether fishermen were able to participate in the fishery in those years;

(iv) Variations in seasonal distribution, abundance, or migratory patterns of the different species/complexes based on scientific and fishery information;

(v) Effects of catch rates in one part of a region precluding vessels in another part of that region from having a reasonable opportunity to harvest a portion of the different species and/or management quotas;

(vi) Effects of the adjustment on accomplishing the objectives of the 2006 Consolidated HMS FMP and its amendments; and/or,

(vii) Effects of a delayed opening with regard to fishing opportunities in other fisheries.

(4) *Public display and non-specific research quotas.* All sharks collected under the authority of a display permit or EFP, subject to restrictions at § 635.32, will be counted against the following:

(i) The base annual quota for persons who collect LCS other than sandbar, SCS, pelagic sharks, blue sharks, porbeagle sharks, or prohibited species under a display permit or EFP is 57.2 mt ww (41.2 mt dw).

(ii) The base annual quota for persons who collect sandbar sharks under a display permit is 1.4 mt ww (1 mt dw) and under an EFP is 1.4 mt ww (1 mt dw).

(iii) No persons may collect dusky sharks under a display permit. Collection of dusky sharks for research under EFPs and/or SRPs may be considered on a case by case basis and any associated mortality would be deducted from the shark research and display quota.

* * * * *

9. In § 635.28, the section heading and paragraph (b) are revised to read as follows:

§ 635.28 Fishery closures.

* * * * *

(b) *Sharks*—(1) Non-linked quotas: If the quota of a species or management group is not linked to another species or management group, then if quota is available as specified by a publication in the **Federal Register**, the commercial fishery for the shark species management group specified in § 635.27(b) will remain open. When NMFS calculates that the landings for the shark species management group, as specified in § 635.27(b)(1), has reached or is projected to reach 80 percent of the available quota as specified in § 635.27(b)(1), NMFS will file for publication with the Office of the Federal Register a notice of closure for that shark species, shark management group, and/or region that will be effective no fewer than 5 days from date of filing. From the effective date and time of the closure until NMFS announces, via the publication of a notice in the **Federal Register**, that additional quota is available and the season is reopened, the fisheries for the shark species or management group are closed, even across fishing years.

(2) Linked Quotas: As specified in paragraph (b)(3) of this section, the quotas of some shark species and/or management groups are linked to the quotas of other shark species and/or management groups. For these linked species and/or management groups, if the quota specified in § 635.27(b)(1) is available for all the linked species and/or management groups as specified by a publication in the **Federal Register**, the commercial fishery for all linked species and/or management groups will remain open. When NMFS calculates that the landings for any species and/or management group of a linked group has reached or is projected to reach 80 percent of the available quota as specified in § 635.27(b)(1), NMFS will file for publication with the Office of the Federal Register a notice of closure for all of the species and/or management groups in a linked group that will be effective no fewer than 5 days from date of filing. From the effective date and time of the closure until NMFS announces, via the publication of a notice in the **Federal Register**, that additional quota is available and the season is reopened, the fishery for all species and/or management groups in a linked group is closed, even across fishing years.

(3) The quotas of the following species and/or management groups are linked:

(i) Atlantic hammerhead sharks and Atlantic aggregated LCS.

(ii) Gulf of Mexico hammerhead sharks, Gulf of Mexico aggregated LCS, and Gulf of Mexico blacktip sharks.

(iii) Atlantic blacknose and Atlantic non-blacknose SCS.

(iv) Gulf of Mexico blacknose and Gulf of Mexico non-blacknose SCS.

(4) When the fishery for a shark species and/or management group is closed, a fishing vessel, issued a Federal Atlantic commercial shark permit pursuant to § 635.4, may not possess or sell a shark of that species and/or management group, except under the conditions specified in § 635.22(a) and (c) or if the vessel possesses a valid shark research permit under § 635.32, a NMFS-approved observer is onboard, and the sandbar and/or Research LCS fishery is open. A shark dealer, issued a permit pursuant to § 635.4, may not purchase or receive a shark of that species and/or management group from a vessel issued a Federal Atlantic commercial shark permit, except that a permitted shark dealer or processor may possess sharks that were harvested, off-loaded, and sold, traded, or bartered, prior to the effective date of the closure and were held in storage. Under a closure for a shark species group, a shark dealer, issued a permit pursuant to § 635.4 may, in accordance with State regulations, purchase or receive a shark of that species or management group if the sharks were harvested, off-loaded, and sold, traded, or bartered from a vessel that fishes only in State waters and that has not been issued a Federal Atlantic commercial shark permit, HMS Angling permit, or HMS Charter/Headboat permit pursuant to § 635.4. Additionally, under a closure for a shark species and/or management group, a shark dealer, issued a permit pursuant to § 635.4, may purchase or receive a shark of that species group if the sandbar and/or Research LCS fishery is open and the sharks were harvested, off-loaded, and sold, traded, or bartered from a vessel issued a valid shark research permit (per § 635.32) that had a NMFS-approved observer on board during the trip sharks were collected.

* * * * *

10. In § 635.31, paragraphs (c)(1) and (c)(4) are revised to read as follows:

§ 635.31 Restrictions on sale and purchase.

* * * * *

(c) * * *

(1) Persons who own or operate a vessel that possesses a shark from the management unit may sell such shark only if the vessel has a valid commercial shark permit issued under this part. Persons may possess and sell a shark only when the fishery for that species, management group, and/or region has

not been closed, as specified in § 635.28(b).

* * * * *

(4) Only dealers who have a valid shark dealer permit may purchase shark from the owner or operator of a fishing vessel. Dealers may purchase a shark only from an owner or operator of a vessel who has a valid commercial shark permit issued under this part, except that dealers may purchase a shark from an owner or operator of a vessel who does not have a commercial permit for shark if that vessel fishes exclusively in state waters. Dealers may purchase a sandbar shark only from an owner or operator of a vessel who has a valid shark research permit and who had a NMFS-approved observer onboard the vessel for the trip in which the sandbar shark was collected. Dealers may purchase a shark from an owner or operator of fishing vessel who has a permit issued under this part only when the fishery for that species, management group, and/or region has not been closed, as specified in § 635.28(b).

* * * * *

11. In § 635.71, paragraphs (d)(3) and (d)(4) are revised to read as follows:

§ 635.71 Prohibitions.

* * * * *

(d) * * *

(3) Retain, possess, or land a shark of a species group when the fishery for that species, management group, and/or region is closed, as specified in § 635.28(b).

(4) Sell or purchase a shark of a species group when the fishery for that species, management group, and/or region is closed, as specified in § 635.28(b).

* * * * *

12. In Appendix A to part 635, Sections A, B, and D of Table 1 are revised to read as follows:

Appendix A to Part 635—Species Tables

Table 1 of Appendix A to Part 635—Oceanic Sharks

A. Large Coastal Sharks

Atlantic and Gulf of Mexico blacktip, *Carcharhinus limbatus*
Bull, *Carcharhinus leucas*
Great hammerhead, *Sphyrna mokarran*
Lemon, *Negaprion brevirostris*
Nurse, *Ginglymostoma cirratum*
Sandbar, *Carcharhinus plumbeus*
Scalloped hammerhead, *Sphyrna lewini*
Silky, *Carcharhinus falciformis*
Smooth hammerhead, *Sphyrna zygaena*
Spinner, *Carcharhinus brevipinna*
Tiger, *Galeocerdo cuvier*

B. Small Coastal Sharks

Atlantic sharpnose, *Rhizoprionodon terraenovae*
Atlantic and Gulf of Mexico blacknose, *Carcharhinus acronotus*
Bonnethead, *Sphyrna tiburo*
Finetooth, *Carcharhinus isodon*

* * * * *

D. Prohibited Sharks

Atlantic angel, *Squatina dumeril*
Basking, *Cetorhinus maximus*
Bigeye sand tiger, *Odontaspis noronhai*
Bigeye sixgill, *Hexanchus nakamurai*
Bigeye thresher, *Alopias superciliosus*
Bignose, *Carcharhinus altimus*
Caribbean reef, *Carcharhinus perezii*
Caribbean sharpnose, *Rhizoprionodon porosus*
Dusky, *Carcharhinus obscurus*
Galapagos, *Carcharhinus galapagensis*
Longfin mako, *Isurus paucus*
Narrowtooth, *Carcharhinus brachyurus*
Night, *Carcharhinus signatus*
Sand tiger, *Carcharias taurus*
Sevengill, *Heptranchias perlo*
Sixgill, *Hexanchus griseus*
Smalltail, *Carcharhinus porosus*
Whale, *Rhincodon typus*
White, *Carcharodon carcharias*

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