

**DEPARTMENT OF COMMERCE****National Oceanic and Atmospheric Administration****50 CFR Parts 600 and 635**

[Docket No. 030721180-3316-02; I.D. 010903D]

RIN 0648-AQ95

**Atlantic Highly Migratory Species; Atlantic Shark Management Measures**

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

**ACTION:** Final rule; fishing season notification.

**SUMMARY:** This final rule is necessary to ensure that shark regulations are based on the results of the 2002 stock assessments for large coastal sharks (LCS) and small coastal sharks (SCS). The results of these stock assessments indicate that the LCS complex continues to be overfished, and overfishing is occurring; that sandbar sharks are not overfished, but overfishing is occurring; that blacktip sharks are rebuilt and healthy; that the SCS complex is healthy; and that finetooth sharks are not overfished, but overfishing is occurring. Based on these results, NMFS is revising the rebuilding timeframe for LCS to 26 years from 2004, changing some of the commercial regulations, changing some of the recreational regulations, implementing measures to reduce bycatch and bycatch mortality including a time/area closure, removing the deepwater/other sharks from the management unit, establishing criteria regarding adding or removing sharks from the prohibited species group, and establishing a display permit for fishermen who wish to harvest highly migratory species (HMS) for public display. NMFS also updates essential fish habitat (EFH) identifications for sandbar, blacktip, finetooth, dusky, and nurse sharks. NMFS also notifies eligible participants of the opening and closing dates for the Atlantic large coastal, small coastal, and pelagic shark fishing seasons.

**DATES:** This final rule is effective February 1, 2004, except for the amendments to §§ 635.20(e), 635.22(c), and 635.27(b) which are effective on December 30, 2003.

**Fishing Season Opening and Closing Dates**

The fishery opening for large coastal sharks (LCS) in the North Atlantic region is effective January 1, 2004,

through 11:30 p.m., local time, April 15, 2004, and the closure is effective 11:30 p.m., local time, April 15, 2004, through June 30, 2004. The fishery opening for LCS in the South Atlantic region is effective January 1, 2004, through 11:30 p.m., local time, February 15, 2004, and the closure is effective 11:30 p.m., local time, February 15, 2004, through June 30, 2004. The fishery opening for LCS in the Gulf of Mexico region is effective January 1, 2004, through 11:30 p.m., local time, February 29, 2004, and the closure is effective 11:30 p.m., local time, February 29, 2004, through June 30, 2004. The fishery opening for small coastal sharks (SCS) in all regions, pelagic sharks, blue sharks, and porbeagle sharks is effective January 1, 2004, through June 30, 2004, unless otherwise modified or superseded through publication of a closure notification in the **Federal Register**.

**ADDRESSES:** For copies of Amendment 1 to the Fishery Management Plan for Atlantic Tunas, Swordfish, and Sharks (Amendment 1) and its Final Environmental Impact Statement/Regulatory Impact Review/Final Regulatory Flexibility Analysis (FEIS/RIR/FRFA), contact Karyl Brewster-Geisz at NMFS Highly Migratory Species Management Division, 1315 East-West Highway, Silver Spring, MD 20910 or at (301) 713-1917 (fax). Copies can also be obtained on the web at <http://www.nmfs.noaa.gov/sfa/hms/>. Comments regarding the collection-of-information requirements contained in this rule should be sent to the HMS Management Division at the address noted above and to the Office of Management and Budget (OMB) by e-mail to [David\\_Rostker@omb.eop.gov](mailto:David_Rostker@omb.eop.gov), or fax to (202) 395-7285.

**FOR FURTHER INFORMATION CONTACT:** Karyl Brewster-Geisz, Heather Stirratt, or Chris Rilling at 301-713-2347 or fax 301-713-1917 or Greg Fairclough at 727-570-5741 or fax 727-570-5656.

**SUPPLEMENTARY INFORMATION:** The Atlantic shark fisheries are managed under the authority of the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act). The Fishery Management Plan for Atlantic Tunas, Swordfish, and Sharks (HMS FMP), finalized in 1999, and Amendment 1 to the HMS FMP are implemented by regulations at 50 CFR part 635.

NMFS published a Notice of Intent to conduct an EIS and draft Amendment 1 to the HMS FMP on November 15, 2003 (67 FR 69180). On January 27, 2003, NMFS announced the availability of an Issues and Option paper and scheduled seven scoping meetings (68 FR 3853).

On August 1, 2003, NMFS published the proposed rule regarding Amendment 1 (68 FR 45196) and announced the availability of the Draft EIS (68 FR 45237). NMFS held six public hearings and one Advisory Panel meeting during the public comment period, which was extended to October 3, 2003, due to Hurricane Isabel (68 FR 47904, August 12, 2003; 68 FR 51560, August 27, 2003; 68 FR 54885, September 19, 2003). Additionally, NMFS attended several Fishery Management Council meetings regarding Amendment 1 and its proposed rule.

Information regarding the management history of Atlantic sharks, Exempted Fishing Permits (EFP), and EFH and the alternatives considered in Amendment 1 was provided in the preamble of the proposed rule and is not repeated here. Additional information can be found in the Final Amendment 1 available from NMFS (see **ADDRESSES**). A description of the changes to the proposed rule can be found after the response to comments, followed by information on the available quota and the length of the first 2004 fishing season.

Most of the measures in this rule, such as the requirement to carry and use linecutters and dipnets, the change in authorized gear in the recreational fishery, and the removal of deepwater and other sharks from the management unit, will be effective on February 1, 2004. However, some of the management measures that relieve restrictions, such as the changes to the commercial quotas (including the quota level for large coastal sharks (LCS), small coastal sharks (SCS), and establishment of regional quotas (§ 635.27(b))), changes to the recreational bag and size limit (§§ 635.22(c) and 635.20(e)), and changes to the commercial minimum size (§ 635.20(e)), will be effective on December 30, 2003. Additionally, in order to give fishermen time to adjust to the new regulations and, if necessary, revise their business plans, some of the final measures will be implemented after February 1, 2004. For instance, the Mid-Atlantic shark closure off of North Carolina (§ 635.21(d)(1)) and the trimester seasons for the commercial fisheries (§ 635.27(b)(1)(i)) will be effective on January 1, 2005. Furthermore, the requirements of installing and activating a vessel monitoring system (VMS) for bottom longline and gillnet vessels (§ 635.69(a)(2) and (3)) and possessing and using a dehooking device (§ 635.21(d)(3)(ii)) are delayed indefinitely pending type approval

notifications to be published at a later date in the **Federal Register**.

### Response to Comments

A number of individuals and groups provided both written and verbal comments during the public comment period. The comments are summarized below together with NMFS' responses. Additionally, several questions were raised during the waiting period for the FEIS. While not required, NMFS has, along with the other comments below, provided further clarification to respond to some of the questions raised. All comments are grouped in a layout similar to the layout of the preamble of the proposed rule.

#### 1. LCS Rebuilding Time Frame

*Comment 1:* The proposed rebuilding time frame is illegal and runs counter to the precautionary approach. The LCS complex can and must be rebuilt within the 10-year time limit envisioned by Congress.

*Response:* The National Standard 1 Guidelines, 50 CFR § 600.310, specify two strategies for determining the rebuilding time frame. First, if a stock can rebuild in less than 10 years, the rebuilding time frame can be no longer than 10 years. Second, if a stock will take 10 years or more to rebuild, the rebuilding time frame can be as long as the time to rebuild with no fishing plus a mean generation time. The HMS FMP specifies that, because of their slow growth and low reproductive potential, a 70-percent probability should be used for rebuilding the stock for sharks. The HMS FMP states that a 70-percent probability should be used as a guide to ensure that the intended results of management actions are realized and to assess the relative merits of one rebuilding time frame over another (see the HMS FMP at 3-61 and 3-289). The HMS FMP also uses a low probability of a negative outcome (less than 20-percent probability) as a guide for evaluating management measures.

Under the 70-percent probability, the amount of time required for rebuilding under no fishing is 10 years or greater. Thus, the second rebuilding strategy, discussed above, would apply. After taking into account the biology of the stocks, the results of the 2002 LCS stock assessment, the requirements of the Magnuson-Stevens Act and the National Standard Guidelines, the criteria in the HMS FMP, and the status of the fishing communities that rely on economic activities involving the capture of these fish, NMFS does not believe that a 10-year rebuilding period is appropriate for the LCS complex. The 26-year rebuilding period established in

Amendment 1 is consistent with the Magnuson-Stevens Act, the National Standard Guidelines at 50 CFR part 600, subpart D, and the HMS FMP.

*Comment 2:* If prohibiting fishing for 10 years does not quite give a 70-percent chance of rebuilding the LCS complex to MSY, then prohibit fishing for 20 years.

*Response:* As discussed above, the HMS FMP establishes a 70-percent probability as a guide for shark management measures. Eliminating fishing would not achieve a 70-percent probability of rebuilding within 10 years; therefore, NMFS has established a rebuilding period of 11 years (no fishing period) plus one mean generation time. Prohibiting shark fishing for 20 years would give an 86-percent chance of rebuilding the LCS complex to maximum sustainable yield (MSY). However, prohibiting shark fishing for 20 years is not required by the Magnuson-Stevens Act, which allows NMFS to consider a number of factors when determining the rebuilding time frame, including impacts on fishing communities. If NMFS were to prohibit fishing for 20 years, a number of businesses including fishermen, processors, and suppliers, could be forced out of business and a number of communities, including recreational fishing communities, would be adversely affected. Additionally, prohibiting fishing for 20 years would eliminate the fishery-dependent data that is needed to accurately assess the status of the stocks. Given these impacts, the objectives of the HMS FMP and Amendment 1, the requirements of the Magnuson-Stevens Act and other domestic law, and the results of the 2002 large and small coastal shark stock assessments, NMFS does not believe that shark fishing should be prohibited for 20 years.

*Comment 3:* Our confidence in the 70-percent chance to rebuild figure is low given the number of uncertainties and deficiencies in the plan particularly the fact that the quota is not reduced by 50 percent, the time/area closures to protect juveniles will not be implemented immediately, there is no size limit in place, and NMFS has not accounted for all sources of mortality such as state landings.

*Response:* While some uncertainty is inherent in developing any rebuilding plan, based on the best available scientific information, NMFS is confident that the combination of management measures in Amendment 1 should have a 70-percent chance of rebuilding the LCS complex. The 2002 LCS stock assessment found that reducing the catches by 50 percent

would have, on average, a 67-percent chance of rebuilding LCS in 30 years. While the rebuilding time frame in the amendment is shorter than 30 years and the commercial quota is reduced by 45 percent, not 50 percent, NMFS is implementing a number of other management measures that should reduce fishing mortality and increase the reproductive potential of several stocks in the LCS complex. For example, the time/area closure will protect juvenile sharks as recommended by the 2002 LCS stock assessment. Numerous studies have shown that protecting this life stage provides the greatest benefit to increasing the population size. Thus, the time/area closure will be more effective at protecting juvenile sharks and rebuilding the population than a commercial minimum size because a minimum size would force commercial fishermen to discard undersized sharks, which would not be counted against the commercial trip limit. This could result in more sharks being caught and potentially discarded. In the long-term, if dead discards were to increase as a result of a minimum size, then the commercial and recreational portions of the optimum yield would decrease and both the commercial quota level and recreational retention limit could be reduced. A minimum size in the recreational fishery does not raise the same concerns because the recreational fishery is believed to have low post-release mortality rates and has already been limited to one shark per trip, not including the exception for Atlantic sharpnose and bonnethead sharks.

NMFS is also implementing other management measures, such as the requirement for commercial fishermen to carry and use line cutters and dehooking devices, that should minimize the mortality of sharks that are caught and released. Together, these management measures, along with accounting for all sources of fishing mortality (including both Federal and State commercial landings, dead discards, and recreational catches), increasing and improving education and outreach, and increasing compliance with the recreational regulations, should give the LCS complex a 70-percent chance of rebuilding within the rebuilding time frame.

An additional significant aspect of the HMS FMP is the requirement that NMFS conduct periodic stock assessments for species or species-groups. If new information indicates that the LCS complex is not likely to be rebuilt within the required time frame, NMFS can adjust management measures, as necessary, to ensure the

70-percent probability of rebuilding the stock over the course of the 26-year rebuilding period. Additionally, as more species-specific information becomes available, NMFS will attempt to conduct species-specific assessments and evaluate possible management measures that could focus on those species that are the most vulnerable or that need the most protection.

*Comment 4:* In considering the management options and probability of rebuilding sharks, having an additional set of alternatives with a higher probability of success would have been useful for comparison purposes. As it stands, the most conservative alternatives are the ones chosen as the preferred alternatives and they may be insufficient to meet the management goals. As such, the preferred alternatives in the amendment should be considered the absolute minimum necessary to manage sharks consistent with the advice of the 2002 stock assessments.

*Response:* As required under NEPA, NMFS considered a wide range of alternatives designed to rebuild LCS. The range of alternatives included those that could be considered risk-prone (e.g., removing the retention and/or size limits in the recreational fishery) to risk-averse (e.g., allowing no retention in the recreational fishery). From all the alternatives considered, NMFS selected a group of alternatives that, consistent with the Magnuson-Stevens Act, is likely to rebuild the LCS complex within the revised rebuilding time frame while allowing for a viable shark fishery. If warranted based on the results of future stock assessments, NMFS can adjust the commercial quota or other management measures to ensure the 70-percent probability of rebuilding the stock over the course of the 26-year rebuilding period.

*Comment 5:* The proposed rebuilding time frame is the maximum allowed under the National Standard guidelines and is set using the entire complex rather than considering the biology of each individual species. We encourage NMFS to consider stratifying the time frame by considering the biology for individual species.

*Response:* NMFS would like to move toward more species-specific management in the future and will do so if fishermen can demonstrate a better ability to target and/or avoid certain species of sharks, species-identification among commercial and recreational fishermen and commercial dealers improves, and enough scientific data are collected that allows for more species-specific stock assessments. Thus, NMFS will consider revising the basis for calculating the commercial quota and

the classification scheme to consider a more species-specific approach to management when sufficient data are available to do so effectively.

*Comment 6:* The rebuilding time frame should be calculated from the time the fishery was declared overfished, in this case 1999. Restarting the clock based on new assessment information is not required by the Magnuson-Stevens Act.

*Response:* NMFS had originally finalized a rebuilding plan in the 1999 HMS FMP that was designed to rebuild ridgeback LCS in 39 years and non-ridgeback LCS in 30 years. This rebuilding plan was based on the projections from the 1998 LCS stock assessment. Based on a peer review of that stock assessment, NMFS determined that the projections from that stock assessment should not be used as the basis for management decisions. For this reason and as a result of the change in status of the two primary LCS species in the fishery, NMFS determined it was necessary to revise the rebuilding plan. Under National Standard 1, a rebuilding plan begins when the first measures to rebuild the stock are implemented. NMFS notes that under this revised rebuilding plan, the LCS complex will be rebuilt by 2030, which coincides with the time period projected for rebuilding non-ridgeback LCS sharks under the 1999 HMS FMP (2029) and is less than the 1999 HMS FMP rebuilding time period projected for ridgeback LCS sharks (2038).

*Comment 7:* Applying a 70-percent probability to the setting of a time frame does nothing to enhance conservation and increases risk to the sharks. Choosing the 27-year time frame over a 10-year time frame is, at best, conservation neutral because the management measures, at least for 2004, are the same regardless of the rebuilding end date. At worst, choosing the longer time frame is riskier because it allows shark stocks to linger longer at lower biomass levels and could allow for inappropriate increases in fishing effort in future years before the complex is rebuilt.

*Response:* The 70-percent probability of achieving the rebuilding target will enhance conservation, reduce risk, and facilitate rebuilding of LCS. NMFS disagrees that a 10-year time frame would be consistent with the same management measures applied under the revised 26-year time frame. In the HMS FMP, NMFS decided to use a higher probability standard for sharks because the biology of sharks is different than other HMS and fish in that they take a number of years to mature, have

few pups per brood, and generally only reproduce every other or every three years. This, combined with the fact that they are migratory and that some of their prey species are overfished, has led to the determination that a higher level of certainty is required when setting management actions for sharks. Under a 10-year rebuilding time frame, even with a closure of the fishery, NMFS still would not reach a 70-percent probability of rebuilding the LCS complex.

*Comment 8:* Probabilities of success should be applied only once a rebuilding time frame is set. The HMS FMP, other FMPs, and courts have all noted that management measures must have at least a 50-percent chance of success. The 2002 LCS stock assessment found that a 50-percent reduction in catch has a 50-percent chance of rebuilding the LCS complex within 10 years. Thus, the plan meets the minimum probability of success. Ironically, NMFS does not apply the 70-percent guide to the selected time frame, noting instead that 64 percent is close enough.

*Response:* By applying probabilities of success only once a rebuilding time frame is set, NMFS would have no basis for determining whether or not a stock could likely rebuild in less than 10 years or more than 10 years. This could result in unrealistic rebuilding time frames that could be so short as to leave no option other than closing the fishery or that could be so long as to never result in rebuilding the stock. Instead, NMFS uses the probability of success both in setting the rebuilding time frame and in selecting all the alternatives to ensure that, taken together, the suite of alternatives will meet the probability standard. Thus, in Amendment 1, while reducing the overall catch by 45 percent does not give a 70-percent probability of success, the combination of catch reductions with other management actions that will likely reduce mortality of released catch or protect juvenile sharks does have a 70-percent probability of success.

## 2. Commercial Management Measures

### A. LCS Classification

*Comment 1:* NMFS received a range of comments regarding the proposed classification. Comments received included: It is easier to comply with one closure date; violators can take advantage of two closure dates. We support the preferred alternative because it will simplify the regulations and reduce regulatory discards. We agree that species-specific quotas are not reasonable now and therefore support

the re-aggregating the LCS complex; however, NMFS should not abandon the goal of species-specific management. Because fishermen can actively target sandbar and blacktip sharks, we prefer the alternative that allows for species-specific shark groupings or, alternatively, the ridgeback/non-ridgeback species groupings. The stock assessment recommended that every effort be made to manage the LCS fishery on a species by species basis; thus, we support LCS groupings with different closure dates possible.

*Response:* NMFS considered five different LCS classifications in developing the proposed and final rule. The aggregate LCS classification with one closure date is preferred because, in combination with the other preferred alternatives, it is (1) expected to maintain historic fishing practices (since 1993) and food availability in the market place, (2) expected to reduce burden on fishermen for sorting, (3) expected to decrease, or at least not increase, the number of protected resource interactions; and (4) not expected to increase regulatory discards. During this rulemaking process NMFS heard that many fishery participants cannot accurately identify or effectively target individual shark species. As such, NMFS does not believe that a species-based classification is warranted at this time, but will reconsider this issue when the ability to identify and target shark species improves.

*Comment 2:* The preferred alternative is the same classification that was in place from 1993 through 2002 but is not consistent with the rebuilt status of sandbar and blacktip shark or the economic needs of shark fishermen.

*Response:* The final action for LCS classification (*i.e.*, aggregate LCS, one closure date) seeks to minimize bycatch (*i.e.*, regulatory discards) of both rebuilt and overfished species of LCS, which would otherwise occur under separate closure dates or partial closures of a mixed fishery. While sandbar and blacktip sharks are no longer overfished and, in the case of blacktip sharks, may be able to withstand an increase in harvest, NMFS also needs to rebuild overfished LCS. As noted above, species-specific management is not feasible at this time. This final action allows fishermen the opportunity to catch the entire quota without decreasing efficiency (*i.e.*, increased time to sort catch, increased time at sea to make up for lost catch resulting from regulatory discards, etc.), thus, maximizing economic benefits as compared with the other classification alternatives considered.

*Comment 3:* NMFS should increase research, survey, and monitoring efforts to acquire the critical information on individual life histories, ecological requirements, and stock conditions to enable more species-specific management. NMFS should develop a plan of action for moving towards species-specific management in the future.

*Response:* NMFS is supportive of increasing scientific research, surveys, and monitoring efforts of shark populations, provided that funding is available to do so. Currently, NMFS funds a number of shark focused research programs including, but not limited to: (1) Cooperative shark research (*i.e.*, between Southeast Fisheries Science Center and Mote Marine Laboratory), (2) reducing blue shark bycatch in pelagic longline fisheries, (3) delineation of winter nursery grounds, migratory patterns, and critical habitat of juvenile sandbar sharks in the western Atlantic Ocean, and (4) various observer programs in the shark fishery. NMFS will review species-specific information and incorporate such information into stock assessments, as appropriate, as it becomes available and intends to pursue workshops to improve species identification by fishermen and dealers in the future. As such, NMFS may consider implementation of species-based LCS classifications when the ability to accurately identify and effectively target shark species improves.

*Comment 4:* National Standard 1 requires NMFS to adopt alternatives that result in the lowest quotas for vulnerable and overfished species and minimize bycatch to the greatest extent possible. Therefore, NMFS should adopt the alternative that aggregates LCS and closes the fishery when the quota for the most vulnerable species is met.

*Response:* Of the LCS classification alternatives considered, the LCS classification final action best complies with National Standard 1 because it, in combination with the final action for the quota basis, prevents overfishing and facilitates rebuilding of LCS while achieving optimum yield on a continuous basis from the fishery. Additionally, the selected alternative is expected to decrease, or at least not increase, the number of protected resource interactions and not expected to increase regulatory discards, which is consistent with National Standard 9. Closing the fishery when the quota for the most vulnerable species is met is not a viable alternative at this time because to date there is limited data available on individual LCS species beyond that of

sandbar and blacktip. Without species-specific assessments, it is difficult to say which LCS species have highest vulnerability or even what the quota should be for any individual species. NMFS may consider this alternative as more information becomes available in the future.

#### B. Shark Quota Administration

*Comment 1:* NMFS received a range of comments regarding the combination of regional quotas and trimester seasons (*i.e.*, three four-month periods). Comments included: We support the proposed administration of regional and trimester seasons. We cannot support the proposed administration of regional and trimester seasons. Regional and trimester seasons will provide for more flexible management and improve quotas as a management tool. The regional quotas and trimester seasons will force vessels down to Florida for the January opening and will force them to fish for a shorter amount of time.

*Response:* NMFS considered three separate alternatives regarding seasons and two alternatives pertaining to regional quotas. NMFS is implementing trimester seasons with regional quotas because this combination will (1) aggregate the majority of shark pupping into one fishing season (*i.e.*, second trimester) as opposed to divide it into two or more seasons, which is possible with either the semi-annual or quarterly season approaches, (2) provide managers with flexibility to adjust regional quotas, where necessary, to prevent mortality on juveniles and reproductive female sharks, (3) provide a higher degree of resolution on which to manage seasonal fisheries, (4) minimize the social and economic costs associated with switching gear more often (*i.e.*, only three times as opposed to four per year), (5) give a higher percentage of the quota to each open season than would occur under a quarterly season approach, and (6) will increase the number of open seasons (*i.e.*, three as opposed to two) and spread them across the calendar year, thereby promoting greater economic stability of fishery participants.

*Comment 2:* NMFS received a range of comments regarding the proposed trimester approach. Comments included: The entire season, from January through November, should be closed to protect fish. The second semi-annual season closes too early. The trimester seasons will spread out the landings and avoid current price drops. The trimester approach will allow fishermen to catch sharks when grouper prices are lower and helps sharks be available year-round. Trimester seasons

appear to have the greatest potential to accommodate shark pupping activities. The second trimester season should be closed to all shark fishing to reduce the catch of juveniles.

*Response:* NMFS considered three different seasons for the shark fishery in the development of the proposed and final rule. Trimester seasons (*i.e.*, three four-month fishing seasons) are preferred because they will allow managers the flexibility to open and close seasons to match species requirements such as aggregating shark pupping seasons into one fishing season, as opposed to spreading pupping time-frames over multiple open seasons. Trimesters will also avoid undesirable dates (*i.e.*, July 1st) for market openings. Additionally, trimester seasons will give fishermen a greater chance to build new markets for sharks, given that there will be more open seasons (*i.e.*, three as opposed to two) spread across the calendar year. Increasing the number of open seasons and effectively spreading open seasons out more evenly over the calendar year will, in the long-term, result in greater economic stability for fishermen and associated communities.

*Comment 3:* NMFS should keep the semi-annual seasons and open the second season on July 15th each year.

*Response:* Maintaining semi-annual seasons could have negative ecological, social, and/or economic impacts should semi-annual seasons continue to extend into pupping seasons. Given that LCS are overfished and overfishing is occurring, continued mortality levels on juvenile and reproductive females could cause the complex to decline further over time. Further declines in LCS stock status could result in additional reductions in available quota and/or other management measures, which could impact fishermen and fishing communities both economically and socially. Trimester seasons will aggregate the majority of shark pupping into one fishing season (*i.e.*, second trimester) and simultaneously avoid market problems associated with a July 1st opening by providing for openings on January 1, May 1, and September 1 of each year.

*Comment 4:* NMFS should start each season at the same time to help disperse fishing effort and promote equitable distribution of the allowable quota.

*Response:* While opening shark seasons at the same time for all regions may help to disperse fishing effort and promote equitable distribution of the allowable quota, allowing managers flexibility to determine alternative season opening dates (*i.e.*, by region) will promote further consideration of

safety at sea and give greater fishing opportunities based upon fish availability in each region.

*Comment 5:* August and September are not good times for shark fishing. Most of the effort should be in October through December. Therefore, the quota should be reapportioned from the first two trimesters to the last trimester.

*Response:* NMFS recognizes that there are temporal differences in catch-per-unit-effort as well as catch composition in the shark fishery. As such, annual quotas need not be split equally between trimester seasons. Instead, trimester seasons will allow managers to establish quotas for each open season based on markets, pupping season, effort concerns, and other relevant factors. Initially, NMFS will split the available quota equally between trimesters for the first year or two and will re-evaluate this approach via rulemaking, if necessary, based upon observed catch rates and other factors, such as stock status.

*Comment 6:* NMFS received a range of comments specific to the proposed percentages for regional quotas. The comments included: The historical percentage of small coastal sharks in the Gulf of Mexico is incorrect due to improper identification and reporting. The regional quota proposed for the North Atlantic is below the actual take and would be filled quickly between the vessels fishing in the region. The North Atlantic proposed portion of the LCS quota is too large and should be reduced; the percentage was probably inflated due to misidentification of sandbar sharks. The South Atlantic proposed portion for SCS is too large due to misinformation and misidentification; there are just as many LCS reported in that region as SCS. We can only support regional quotas if one region does not prevent another region from having a fair shot at the fishery.

*Response:* NMFS combined information from two separate databases containing regional landings information as reported by dealers and states to NMFS over several years. These landings data represent the best available information pertaining to regional data. Given that the regional quotas seek to maintain historical landings, as opposed to reducing landings, NMFS does not expect this alternative to change previous fishing practices or result in any significant economic impact. Fishery participants will be allowed to fish in any region, provided that the season for the region in question is open and that the quota for that region has not been taken. Over time, this alternative may allow NMFS the flexibility to manage quotas to each

region's maximum economic advantage. Additionally, if reporting indicates that participation in one region increases or decreases, NMFS may, through another rulemaking, modify the percentages available to each region to ensure that fishermen in all regions have a reasonable opportunity to fish for sharks. NMFS recognizes the need for more accurate species identification and as such, the agency will pursue mandatory workshops through a future rulemaking that will focus on improving species identification by fishery participants and possibly dealers and enforcement agents.

*Comment 7:* How will NMFS enforce the regional quota approach? Will there be three separate permits for vessels fishing within the regions or can a vessel fish in an open region and land catch in a closed region? We are only supportive of the regional quota approach if permitted vessels can fish in any region.

*Response:* Federal fishery participants will be allowed to fish in any region, provided that the season for the region in question is open and that the quota for that region has not been taken. As such, NMFS will not be issuing regional permits to vessels authorizing them to fish in a given region. Rather, each regional quota will be enforced by monitoring illegal fishing activity in each region, as is done in the Atlantic bluefin tuna fishery. As is current practice, the closure date for each region will be announced before the start of the season. Additionally, state agencies may have different permit and closure requirements. As such, fishery participants are encouraged to check with state agencies, where state permit and/or closure requirements are in question.

*Comment 8:* NMFS should not use data from 1999 to 2001 to establish the regional quotas. Instead, NMFS should use data from the 1980s (*i.e.*, before management) in order to get an idea of where the fishery historically operated. If this is done, the North Atlantic will account for over half the landings.

*Response:* Calendar years 1999–2001 were used as the basis for establishing regional quotas because they (1) represent the period of time following the last major change in management of the shark fishery, (2) fall after implementation of limited access permits, and (3) represent the time-frame for which the best regional data are available. Using a longer timeframe or only data from the past may not provide an accurate representation of the current fishery. Over time, NMFS may, if warranted, decide to adjust the

regional quotas via rulemaking to ensure each region has an opportunity to fish.

*Comment 9:* NMFS should pay particular attention to regional differences in shark pupping activity and use its discretion in allocating quotas and setting seasons so as to best prevent mortality of congregating pregnant females, pups, and juveniles.

*Response:* Spatial differences in fishery practices and catches warrant further consideration, and regional quotas provide a means of preventing mortality of congregating reproductive females, pups, and juvenile sharks. Shark pupping data indicate that spatial differences exist between species utilization of various shark pupping grounds. For example, species within the SCS complex utilize pupping grounds between South Carolina and the Gulf of Mexico, whereas some species within the LCS complex utilize only the Atlantic coast for pupping grounds. NMFS will periodically assess regional differences in shark pupping activity and should changes be required, quota adjustments will be carried out via framework action.

### C. Shark Quota Basis

*Comment 1:* We support the preferred alternative of an MSY basis. In the future, NMFS should estimate MSY on a species-specific basis for all LCS. NMFS should establish a similar approach for pelagic sharks when a validated assessment is available.

*Response:* Amendment 1 uses MSY as a basis for establishing commercial quotas. NMFS must determine MSY as well as optimum yield (OY) and specify status determination criteria to determine the status of the stock. As such, the 1999 HMS FMP defined fishing mortality and biomass levels necessary to produce MSY and OY on a continuing basis. Given that these definitions are not subject to change in this final rule, MSY-based quotas provide a direct means for determining appropriate fishery management action. MSY and OY estimates are readily available from stock assessment outputs and can be updated annually if necessary. NMFS is currently limited in its ability to estimate MSY for all shark species within each of the management units. However, as new information becomes available, NMFS will strive to integrate more species-specific information into stock assessments, where MSY could be calculated. Once the international stock assessment for pelagic sharks is complete, NMFS will re-evaluate the appropriateness of existing pelagic shark quotas and the basis for calculating commercial quotas for these species.

*Comment 2:* NMFS received several comments regarding the reduction in LCS quota by 40 percent instead of the recommended 50 percent. Comments included: Because the proposed alternative reduces MSY by only 40 percent instead of the recommended 50 percent, NMFS should adopt other conservation methods such as gear restrictions and time/area closures whose effects can be quantified to show that they achieve the mortality goal of rebuilding with a 70-percent probability. The 40-percent reduction is not reasonable; there is no reliable basis to stray from the scientific advice. The assessment recommendation is based on a 50-percent probability of successful rebuilding; if NMFS were to apply the 70-percent guide, the proposed reduction would be larger not smaller than 50 percent. Therefore, NMFS should reduce the quota by a minimum of 50 percent.

*Response:* The preferred quota alternatives will implement an LCS aggregate quota based upon a 45-percent reduction of average maximum sustainable catch (MSC) for LCS, multiplied by the percentage of commercial catch attributable to the LCS complex. NMFS reduced the 50 percent recommended reduction by five percent after considering the following factors: (1) While the stock assessment did say that the LCS complex should be reduced by 50 percent, it also said that the reductions should be on species other than sandbar and blacktip; (2) observer data indicates that sandbar and blacktip sharks comprise approximately 67 percent of the LCS catch, indicating that a quota reduction would mostly apply to those species; (3) peer reviews of the 2002 LCS stock assessment indicated that the complex assessment may not be as accurate as individual species because of biological differences between species; (4) catch per unit effort (CPUE) data for silky, tiger, and scalloped hammerhead do not indicate a decline; and (5) the other preferred measures such as the time/area closure will reduce mortality and/or dead discards. Furthermore, the percent reduction has been revised upward from the 40-percent reduction originally proposed in the draft Amendment based upon public comment received during public hearings. The Southeast Fisheries Science Center has indicated that the combination of the preferred alternatives, namely the 45-percent quota reduction and time/area closure, would increase compliance in the fishery and allow for the LCS complex to rebuild within the specified time-frame. As such, further reductions in the

LCS commercial quota are not necessary at this time. However, NMFS will adjust the quota over time based upon future stock assessments to ensure that the LCS complex rebuilds within the 26-year rebuilding time frame.

*Comment 3:* NMFS must also account for state fisheries mortality estimates when setting quotas.

*Response:* State landings are included as part of the commercial landings percentage used to calculate the commercial quotas. Thus, the commercial quota is established to include landings by Federal and state fishermen. Any overharvests or underharvests will be accounted for in the same season of the following year.

*Comment 4:* We support the preferred alternative but the draft amendment is unclear on how information from future stock assessments will be used in setting quotas. Would the same percent of MSY always be used regardless of the population level?

*Response:* The LCS aggregate quota is based upon a 45-percent reduction of average MSC for LCS, multiplied by the percentage of commercial catch attributable to the LCS complex. As such, this percent reduction may not be used when setting future quotas. Instead, NMFS will assess the appropriateness of percent reductions and/or increases as new information becomes available in future stock assessments in order to ensure that the LCS complex rebuilds within the rebuilding timeframe.

*Comment 5:* We support the proposed MSY basis as long as that calculation continues to incorporate a target fishing mortality rate at 75 percent of the fishing mortality at MSY ( $F_{MSY}$ ). We would also support expanding this precautionary buffer by lowering the percent of F but not increasing the rate toward  $F_{MSY}$ .

*Response:* The 1999 HMS FMP defined fishing mortality and biomass levels necessary to produce MSY and OY on a continuing basis. In summary, a species is considered overfished when the current biomass (B) is less than the minimum stock size threshold. The minimum stock size threshold is determined based on the natural mortality of the stock and the biomass at Maximum Sustainable Yield ( $B_{MSY}$ ). The MSY is the maximum long-term average yield that can be produced by a stock on a continuing basis. Overfishing is occurring on a species if the current fishing mortality (F) is greater than  $F_{MSY}$ . When one or both of these measures occur, a species is declared overfished and action to rebuild the stock and/or prevent overfishing is needed within one year.

A species is considered rebuilt when  $B$  is greater than  $B_{MSY}$  and  $F$  is less than  $F_{MSY}$ . A species is considered healthy when  $B$  is greater than or equal to the biomass at optimum yield ( $B_{OY}$ ) and  $F$  is less than or equal to the fishing mortality at optimum yield ( $F_{OY}$ ). NMFS is not changing these definitions in this rule, thus the target control rule for managing healthy stocks continues to be 75 percent of  $F_{MSY}$ . This definition is consistent with the National Standard guidelines.

#### D. Minimum Size Restrictions

*Comment 1:* NMFS received a range of comments regarding what the commercial minimum size should be. Comments included: We support the no commercial minimum size alternative. The minimum size in the HMS FMP was based on sandbar sharks but does not fit for all ridgeback LCS species. We support the proposed no minimum size because the minimum size was established for sandbar sharks which is no longer overfished and because it will help reduce regulatory discards. We support a minimum size for sharks. The minimum size of any shark should be 15 feet. If recreational fishermen have a minimum size to protect juveniles, commercial fishermen should have a minimum size as well. We could support no commercial minimum size if juveniles of all species were protected by time/area closures; the proposed time/area closure does not do this.

*Response:* NMFS considered six different minimum size alternatives in the commercial fishery. Not implementing a commercial minimum size is preferred because, in combination with the other preferred alternatives, it will minimize regulatory discards and economic and social impacts to commercial fishermen, while providing adequate protection for juvenile and neonate sharks through the time/area closure off of North Carolina. Furthermore, commercial gear, unlike recreational gear, can have high post-release mortality rates. Therefore commercial management measures, which are aimed at reducing (*i.e.*, quota reductions) or preventing (*i.e.*, via time/area closures) catch are better for protecting juvenile and neonate sharks.

*Comment 2:* NMFS made a strong case in the HMS FMP for a minimum size based on protecting the age classes with the highest reproductive potential, demographic information, and the proportion of sharks brought to the boat dead. Now that NMFS is backing away from a ridgeback LCS quota, this measure is needed to protect the most sensitive life stages of ridgeback LCS (sandbar and dusky sharks in

particular). NMFS should maintain the minimum size, show quantitative analyses that indicate a minimum size is not needed, or replace it with more effective species-specific measures to protect juvenile dusky and sandbar sharks.

*Response:* Maintaining the commercial minimum size is not warranted at this time. This rule finalizes several commercial management measures including, but not limited to, trimester seasons, regional quotas, reductions in the LCS quota, bycatch reduction measures, and a time/area closure to protect juvenile dusky and sandbar sharks, which will facilitate rebuilding of LCS.

*Comment 3:* If NMFS does not adopt a minimum size, it must adopt a time/area closure to reduce bycatch of juvenile and neonate sharks to levels at least as great as would be achieved with minimum sizes.

*Response:* Implementation of a time/area closure would reduce bycatch of juvenile and neonate sharks, but alone, it would not be sufficient to meet the rebuilding target for the LCS complex. As such, NMFS is implementing multiple management measures including, but not limited to reductions in the LCS quota, bycatch reduction measures, and the time/area closure, which are intended reduce bycatch of juvenile and neonate sharks.

*Comment 4:* NMFS should establish sub-group or species-specific minimum sizes within the LCS, SCS, and/or pelagic shark species groups as justified by new or updated research.

*Response:* Minimum sizes for sub-groups or individual species within each management unit are not necessarily the most effective management measures. While a commercial minimum size would seek to protect and reduce fishing mortality on juvenile sharks, any conservation benefits gained may be offset by increases in regulatory discards and associated post-release mortality if commercial fishermen are unable to avoid mixed-size aggregations of some shark species. For instance, while sandbar sharks tend to segregate by size, blacktip sharks and other species do not. Regulatory discards may also result in effort increases by fishermen in order to make up for lost catches, which could also result in increased interactions with protected (*i.e.*, sea turtles and marine mammals) and non-targeted (*i.e.* prohibited sharks and other finfish) species. Additionally, regulatory discards of LCS are not counted against the 4,000 pound trip limit. Thus, if a fisherman should catch a set full of undersized sharks, those sharks would

be discarded and the fisherman could set the gear again, possibly in another school of small sharks. If the ability of fishermen to target certain species of sharks improves, then NMFS may reconsider minimum sizes in the commercial fishery.

*Comment 5:* Commercial fishermen have long claimed that most sharks come in alive. Therefore, there does not seem to be any rationale for a recreational minimum size while similar commercial measures are eliminated. A commercial minimum size for mako sharks is overdue. Longliners are willing to compromise for a minimum size on mako sharks.

*Response:* Commercial fishery observer data indicate that a number of LCS exhibit low survivability following longline capture. These species include spinner (63 percent dead when brought to the vessel), dusky (81 percent), scalloped hammerhead (87 percent), blacktip (88 percent), silky (90 percent), and great hammerhead (95 percent). As such, NMFS believes that implementation of a minimum size in the commercial fishery would result in significant increases in regulatory dead discards of LCS. However, sharks caught on recreational gear are thought to have low post-release mortality rates and, as such, a minimum size in the recreational fishery would contribute to LCS rebuilding by protecting juvenile and subadult sharks.

#### E. Commercial Shark Quota: General

*Comment 1:* NMFS received a range of comments regarding what the commercial quota level should be, including: Commercial quota levels should be reduced or even eliminated until the complex recovers. Quotas should be reduced by 700 percent. We support the quota alternatives (classification, administration, and basis) insofar as that together they result in the lowest overall quotas to ensure sustainable levels for all species and protect juveniles.

*Response:* NMFS did not propose a specific quota level. Instead, NMFS considered a wide range of quotas that resulted from the combination of classification and quota basis alternatives, specifically seven different commercial quotas for LCS and three different commercial quotas for SCS. Each quota alternative carefully considered the results of the 2002 stock assessments for LCS and SCS. The preferred quota alternatives will implement commercial quota levels of 1,017 mt dw for the LCS aggregate and 454 mt dw for the SCS aggregate. These quota levels are expected to rebuild the LCS complex within the necessary time

frame and prevent overfishing of SCS. If future stock assessments indicate adjustments are necessary to meet these goals, then the preferred quota basis alternative will allow NMFS the flexibility to address such adjustments.

*Comment 2:* The most recent stock assessment called for a 50-percent reduction in catches for the LCS complex but the preferred alternatives combined result in a 34-percent reduction in commercial catch from recent years (1,692.7 mt dw to 1,109 mt dw). While the additional measures may result in further reductions in mortality, the other proposed measures could increase the quotas and undermine management.

*Response:* The combination of preferred alternatives including, but not limited to, a commercial quota with a 45-percent reduction in catches and a time/area closure aimed at protecting juvenile and neonate sharks will rebuild the LCS complex. Analyses by the Southeast Fisheries Science Center indicate that the combination of the preferred alternatives in the draft Amendment would allow for the LCS complex to rebuild within the rebuilding time frame. Furthermore, the other final actions (*i.e.*, trimester seasons and regional quotas) will not result in an increase in quotas, but will allow for more flexibility in management to better refine management measures to protect juvenile sharks and rebuild overfished LCS.

*Comment 3:* NMFS received several comments regarding the apparent increase in quota from the total of 816 mt dw in the HMS FMP to the proposed 1,109 mt dw. Comments included: Even though LCS are overfished and overfishing is occurring, NMFS is proposing to increase the LCS quota by 35 percent; this is hard to understand. NMFS should move forward with the MSY quota basis but maintain the 816 mt dw quota level until a new, validated stock assessment can be carried out.

*Response:* The no action alternative would implement commercial quota levels for LCS (*i.e.*, 620 mt dw for ridgeback LCS and 196 mt dw for non-ridgeback LCS) totaling 816 mt dw, which were approved in the 1999 HMS FMP based on projection models in the 1998 LCS stock assessment. These quota levels were never implemented due to litigation. Taking into consideration the court-approved settlement agreement, the results of the 1998 stock assessment peer reviews, and other information, NMFS maintained the 1997 commercial quotas for LCS (*i.e.*, 1,285 mt dw) as an interim measure pending completion of Amendment 1. As such, except for 2003,

commercial fishermen have been fishing under the LCS quota of 1,285 mt dw, since 1997. The preferred alternatives, which would implement a LCS quota of 1,017, represent a 21-percent reduction in available quota compared to the 1,285 mt dw baseline.

*Comment 4:* The LCS quota component of the species-specific quota alternatives is too low and should be doubled in order to reduce the potential for regulatory discards.

*Response:* The species-specific quota alternatives (*i.e.*, MSY and average landings) incorporated an appropriate percent reduction for each species or species group, as recommended in the 2002 LCS stock assessment. Additionally, the 2002 stock assessment clearly indicated that LCS reductions should focus on species other than sandbar and blacktip. Because regulatory discards will occur as a result of implementing species-specific quotas in the LCS fishery, NMFS selected alternatives, which in combination with one another will aggregate LCS species and establish one commercial quota for the complex.

*Comment 5:* Fishing pressure on all LCS species except sandbar and blacktip has been abated since the HMS FMP. Any need to reduce the potential for bycatch of the other species via the use of an aggregate quota at a low quota level is inconsistent with the status and biomass levels of the principal commercial species and subject to the practicability standard of National Standard 9. It is not practicable to reduce the commercial fishery now that the primary commercial species are rebuilt.

*Response:* Amendment 1 seeks to rebuild the LCS complex, which is overfished. Consistent with National Standard 9, the preferred alternatives, which would aggregate LCS species and establish one commercial quota for the complex, will, to the extent practicable, minimize bycatch (*i.e.*, regulatory discards of shark) resulting from partial closures (*i.e.*, multiple closure dates by LCS grouping or individual species as a result of quotas being taken) of a mixed fishery and allow fishermen the opportunity to catch the entire quota. Additionally, the number of protected resource interactions may decrease, or at least not increase, because fishermen would not have to increase effort in order to make up for lost catch during partial closures and the LCS quota will be lower as a result of the preferred alternatives.

*Comment 6:* Mexican fishermen catch huge amounts of sharks. Why are U.S. fishermen limited? These limitations on U.S. fishermen has kept prices down.

*Response:* NMFS has regulatory jurisdiction over the exclusive economic zone (*i.e.*, from generally 3 nautical miles seaward to the 200 nautical mile limit) in U.S. waters but cannot regulate the fishing activities of other countries. However, consistent with the National Plan of Action and the Shark Finning Prohibition Act, NMFS is continuing cooperative research efforts with other countries (*e.g.*, Canada and Mexico) and engaging in deeper dialogues with international fishery management organizations such as the International Commission for the Conservation of Atlantic Tunas (ICCAT), the United Nations General Assembly, Food and Agriculture Organization (FAO), and others as appropriate for shark management.

*Comment 7:* We need an adequate incidental quota to reduce/eliminate regulatory discards and cover the inevitable secondary catches in many fisheries.

*Response:* An incidental quota or similar alternatives could be a viable alternative for reducing regulatory discards. NMFS will investigate this issue in a future rulemaking.

### 3. Recreational Management Measures

#### A. Retention Limit

*Comment 1:* NMFS received a range of comments regarding the appropriate recreational retention limit, including: We support the preferred alternative and suggest that anglers also be allowed one additional blacktip shark because the stock is rebuilt. Only one shark of any species per vessel per trip should be allowed because most recreational anglers cannot identify individual shark species. The proposed alternative is appropriate and precautionary because the recreational sector has been fishing under regulations based on a stock assessment that was overturned and, therefore, contributed more to rebuilding. We do not oppose the proposed addition of bonnethead, but urge NMFS to monitor this species to prevent overexploitation; South Carolina has already taken the proposed action based on the same stock assessment results. Any additional catch reductions that may be required to meet management goals should come from the commercial sector before considering further cuts to the recreational sector. Recreational fishermen kill sharks for no reason and cause numerous dead discards to wash up on the beach. Recreational take levels should be reduced.

*Response:* One shark per vessel per trip plus one Atlantic sharpnose and one bonnethead shark per person per

trip is appropriate for the recreational shark fishery. This alternative could reduce recreational harvest levels by the 80–85 percent required under the rebuilding plan in Amendment 1 if angler compliance increases. NMFS analyzed other alternatives in Amendment 1 that would have allowed the retention of additional LCS, SCS, and pelagic sharks. However, because the 2002 LCS stock assessment indicates that the LCS complex needs a reduction in fishing mortality and many recreational anglers cannot correctly identify sharks, those alternatives would not achieve the level of reduction needed to rebuild LCS. With regard to discards and mortality in the recreational fishery, NMFS urges anglers to comply with size and retention limits and release sharks in a manner that maximizes their survival. NMFS may adjust size and retention limits in the future based on the results of future stock assessments.

*Comment 2:* NMFS received several comments regarding methods of increasing compliance within the recreational fishery, including: Any non-compliance by the recreational sector is due to confusion with the current regulations and, to a lesser extent, the proper identification of different shark species. NMFS can solve these problems by increasing angler education and outreach. Compliance and enforcement is not strong in Federal waters. NMFS should increase outreach by using the internet, linking the HMS regulations to the NOAA weather page, and printing flyers for marinas, Sea Grant, port agents, and states.

*Response:* Compliance in the recreational fishery, outreach, and the availability of educational materials needs to be increased. NMFS will distribute a revised Atlantic shark recreational fishery brochure after the final rule for Amendment 1 is published. It will contain information regarding HMS Angling category permits, HMS Charter/Headboat permits, bag limits and minimum sizes, release information, landing restrictions, the no sale provision, HMS tournament registration, tagging information, as well as species that may be retained, and species that must be released. Additional brochures on other HMS fisheries are available. NMFS is also currently producing an identification guide for sharks, tunas, and billfishes of the Atlantic and Gulf of Mexico that should be available shortly. Further, NMFS received public comment in favor of mandatory educational workshops for anglers and commercial fishermen discussing species identification, release techniques, and

regulations. NMFS intends to move forward with requiring participation in mandatory workshops in a future rulemaking and will attempt to make voluntary workshops available to the public in the interim.

*Comment 3:* The one-shark per boat limit is not a problem except in tournaments where anglers may be forced to decide between keeping an eligible shark or taking a chance on catching a larger one. The difference between allowing one or two recreationally caught sharks would be minuscule on an annual basis, in comparison with what a longliner could kill during the same time period.

*Response:* Allowing recreational anglers an additional shark each would not have minor impacts compared to the commercial fleet. Currently, recreational fishermen take more sharks than commercial fishermen (142,000 LCS in 2001 versus 99,200 LCS in the commercial fishery). Additionally, recreational fishermen catch smaller sharks than commercial fishermen (average size of approximately 10 pounds versus 36 pounds in the commercial fishery). This information, combined with the facts that most anglers cannot correctly identify sharks and the LCS stock assessment recommended protecting juvenile LCS, provides support for the one shark limit. Further, the vast numbers of recreational anglers could lead to large numbers of LCS being taken. NMFS analyzed an alternative that would have allowed vessels with HMS Angling category permits participating in registered tournaments, or HMS CHB permit holders on for hire trips, to retain one shark per person, up to two sharks per vessel, per trip, as well as one Atlantic sharpnose and one bonnethead per person per trip. This alternative would have resulted in mortality levels greater than those expected from some of the other alternatives considered and is not consistent with the 2002 LCS stock assessment which indicates that the LCS complex needs a reduction in fishing mortality. Additionally, without more information regarding the status of pelagic sharks, this alternative could have been detrimental to pelagic sharks. However, this alternative could be combined with other fishing controls (e.g., increased minimum sizes) so that overall mortality is not increased. NMFS may consider this approach in the future.

*Comment 4:* Many tournaments have restricted eligible species only to makos and threshers in order to avoid the waste of sharks not normally taken for food.

*Response:* NMFS appreciates and encourages conservation efforts by anglers and tournament organizers.

#### B. Minimum Size Restrictions

*Comment 1:* NMFS received a range of comments regarding the recreational minimum size, including: We support the proposed alternative because a minimum size helps to promote the live release of young sharks. The number of recreational fishermen who fish for sharks from Maine to Texas could number in the millions, which could significantly affect the mortality of juvenile sharks especially if there is no minimum size. South Carolina has already taken this proposed measure; most recreational anglers support a minimum size larger than is being proposed. Because many fish are killed before they are measured, particularly if they are dangerous, we cannot support a recreational minimum size. An exception to the minimum size for blacknose sharks should be added, because they are not overfished and do not reach the proposed minimum size.

*Response:* A 4.5 foot fork length for all sharks and no size limit for Atlantic sharpnose and bonnethead sharks is appropriate for the recreational shark fishery. Sharks caught in recreational fisheries are thought to have low post-release mortality rates and the preferred 4.5 foot fork length minimum size limit should minimize fishing mortality on the stages that contribute the most to population growth by maintaining catch-and-release fishing on juvenile and subadult sharks. The allowances for the retention of Atlantic sharpnose and bonnethead sharks without a minimum size were preferred because these species are easily identified, not overfished or experiencing overfishing, do not commonly reach the current 4.5 foot fork length minimum size limit, and are important recreational catches in some regions. Exceptions for other SCS species were not analyzed in Amendment 1 because of difficulties with identification (e.g., blacknose sharks) or because they are currently experiencing overfishing (e.g., finetooth sharks).

Concerning the safety of anglers who are required to measure live sharks in order to retain them, NMFS recommends that anglers mark areas on the outside of fishing vessel hulls (e.g., at the waterline or boot stripe) with the minimum size. If a shark is smaller than this measurement or if it is a prohibited species, it should be released.

*Comment 2:* Information on proper release techniques and equipment should be made available to the recreational sector.

*Response:* Workshops demonstrating proper handling and release techniques for finfish, sharks, and protected resources, and discussing regulations and species identification could reduce bycatch mortality, improve compliance with current regulations, and improve accuracy of reported data. NMFS intends to move forward with requiring participation in mandatory workshops in a future rulemaking and will attempt to make voluntary workshops available to the public in the interim.

#### C. Authorized Gears

*Comment 1:* NMFS received a range of comments regarding authorized gears, including: We support the preferred alternative. Recreational fishing techniques should be limited to rod and reel and handlines. Spearfishing gear should also be added to the list of allowable recreational fishing gears. Bandit gear is not appropriate for the recreational fishery. Bandit gear should be an allowable gear. Harpoon gear should be added to the list because many fishermen feel it is easier and safer to use harpoons than gaffs.

*Response:* Rod and reel and handline gear are appropriate gears for the recreational shark fishery, because they have lower bycatch and bycatch mortality of sharks, finfish, and protected species, and are being used in other recreational HMS fisheries. Bandit gear was not selected because it has traditionally been considered a commercial fishing gear and because the vast majority of recreational fishermen use rod and reel or handline gear. Spearfishing gear has not been an allowable gear in the recreational shark fishery and therefore was not included. However, implements used to secure rod and reel or handline catches alongside a vessel (e.g., gaffs and harpoons) are being allowed.

*Comment 2:* Limiting the recreational fishery to handline and rod and reel would prohibit landings by recreational gillnet fishermen.

*Response:* This is correct. All sharks caught recreationally with gears other than rod and reel and handline in Federal waters must be released. NMFS does not believe that this measure will increase discards substantially, because the vast majority of recreational fishermen already use rod and reel or handline gear and recreational fishermen, including those using gillnets, have been limited to one shark per vessel per trip since 1999.

*Comment 3:* NMFS should provide a provision that would allow disabled anglers who cannot hold the gear to fish.

*Response:* NMFS will continue to allow fishermen who are unable to

operate rod and reel or handline gear to apply for an EFP that would allow them to fish for sharks recreationally with alternative gear.

#### 4. Bycatch Reduction Management Measures

##### A. Gear Restrictions

###### i. Authorized gear.

*Comment 1:* NMFS received a range of comments regarding the proposed regulation to ban drift gillnet fishing and allow strikenet fishing only, including: Strikenetting and drift gillnetting should be stopped. No observations of these gear types is accurate. Because of bycatch problems, many states have passed regulations banning drift gillnets; therefore, NMFS should as well. Gillnets should not be allowed because, in addition to unacceptable levels of bycatch of sea turtles, marine mammals, red drum, tarpon, and other game fish, the small shark gillnet fishery in Federal waters off Georgia drains limited law enforcement resources that are needed elsewhere. We support the preferred alternative allowing strikenets only if observer coverage is maintained to document a reduction in bycatch. If there is no reduction, this gear type should be removed from the list of authorized gear types. There is no reason to close the shark gillnet fishery because bycatch of protected resources is within the allowance for those species. NMFS should not eliminate a viable fishery that has reliable observer science behind it. There are only five vessels remaining in the fishery, which is down from the historic twelve vessels that used to participate.

*Response:* The intent of the proposed bycatch alternatives were to minimize bycatch and bycatch mortality to the extent practicable. The strikenet only alternative minimizes interactions with protected resources and reduces the bycatch of non-target species, while allowing the commercial shark gillnet fishery to operate. However, NMFS received public comment that allowing the use of strikenets only would not accomplish this objective because strikenet gear cannot target SCS. Therefore, the final regulations permit the use of drift gillnets with possible gear modifications or other measures being implemented through a future rulemaking, based upon further study.

*Comment 2:* The State of Georgia has requested a ban on gillnets since 1992 and continues to request this ban. Because Georgia has banned gillnets, the presence of a gillnet fishery in adjacent Federal waters compromises State management and regulatory statutes and

does not meet the standards for consistency required under Georgia's Coastal Zone Management Act (CZMA) program. Using Global Positioning System (GPS) technology, it may be possible for NMFS to close the Exclusive Economic Zone (EEZ) to gillnets adjacent to Georgia to alleviate ongoing consistency and enforcement problems.

*Response:* The CZMA (1972, reauthorized 1996) requires that Federal actions be consistent with the enforceable policies of all state coastal zone management programs. NMFS has determined that the final actions in Amendment 1 and this rule, which seek to rebuild the LCS complex, prevent overfishing of the LCS complex, and prevent overfishing of other species of sharks, will be implemented in a manner consistent to the maximum extent practicable with the enforceable policies of the coastal states in the Atlantic, Gulf of Mexico, and Caribbean that have federally approved coastal zone management programs.

The State of Georgia objects to the consistency determination due to the continuing operation of the shark gillnet fishery in Federal waters. NMFS has analyzed several bycatch alternatives in Amendment 1, including elimination of the shark gillnet fishery. However, data currently available indicate relatively low rates of bycatch and bycatch mortality of protected species and other finfish in this fishery. In the Biological Opinion (BiOp) conducted for this rulemaking, NMFS determined that the continued operation of the shark gillnet fishery would not jeopardize any endangered or threatened resources and issued a new incidental take statement for the fishery. Therefore, NMFS is not prohibiting the use of this gear at this time, consistent with National Standard 2 which requires that management measures be based on the best scientific information available. NMFS is finalizing a measure that will require all shark gillnet vessels to install and activate a VMS during right whale calving season, and will examine gear modifications or other alternatives to reduce bycatch and bycatch mortality in future rulemakings. NMFS will also work with existing take reduction teams and relevant Fishery Management Councils to examine methods of reducing bycatch. Thus, NMFS finds that the final regulations implemented in Amendment 1 are consistent with Georgia's Coastal Zone Management Program to the maximum extent practicable.

*Comment 3:* If only strikenetting is allowed, the State of Georgia would continue to ask for 100 percent observer

coverage because the reduction of bycatch using strikenet gear in or near Georgia waters has not been adequately investigated. Unlike the waters off Florida, the waters off Georgia are highly turbid. Without adequate observer data, allowing strikenetting for sharks is not a risk-averse strategy to reduce bycatch.

*Response:* This rule does not remove gillnet gear from the list of authorized gears in the commercial shark fishery. The Agency understands the concerns about the need for adequate observer data documenting gillnet operations and catch near Georgia waters and will continue to monitor catch and bycatch, protected species interactions, and fishery characteristics through continued observer coverage.

*Comment 4:* Many states ban both longling and gillnetting without adequate data. If longlines are allowed in Federal waters, then gillnets should similarly be allowed.

*Response:* NMFS has banned gear types (e.g., gillnets in the swordfish fishery) and restricted the use of other gear types (e.g., area closures in the pelagic longline fishery) for a variety of reasons including reducing bycatch and bycatch mortality. In this case, NMFS is not removing gillnet gear from the list of authorized gears at this time.

*Comment 5:* Blacktip and Atlantic sharpnose sharks make up the majority of our drift gillnet landings and are not overfished or experiencing overfishing according to the latest stock assessments. Our biggest discard species in the LCS fishery are rays. In the small coastal shark fishery, our biggest discard species is king mackerel and we have petitioned the South Atlantic Fishery Management Council to allow us to retain more of this catch per trip.

*Response:* The latest LCS and SCS stock assessments indicate that Atlantic sharpnose and blacktip sharks are not overfished and overfishing is not occurring. In regard to the reduction of bycatch and discards, NMFS supports the reduction of bycatch, including regulatory discards, in HMS fisheries. According to 2002 shark gillnet fishery observer data, king mackerel was observed to be the species most commonly discarded from drift gillnet sets, with approximately 248 fish discarded; however, great barracuda (approximately 4 fish) and cownose rays (one fish) were observed to be the most commonly discarded species from strikenet sets. Little tunny, king mackerel, and great barracuda were the three non-target species most commonly observed caught in the shark gillnet fishery in 2002. In a future rulemaking, NMFS will consider additional

alternatives such as gear modifications to reduce bycatch of all species in the gillnet fishery.

*Comment 6:* The preferred alternative allowing only strikenet gear appears as if the Agency is trying to supercede the actions of both the Atlantic Large Whale Take Reduction Plan and the Bottlenose Dolphin Take Reduction Plan. Negotiated actions with members working on these plans are about to become final. If NMFS eliminates the use of gillnet gear, it would be wrong and set a dangerous precedent. Instead, NMFS should start a buyout program for these vessels and regularly attend take reduction plan meetings. There is no support from either take reduction team to ban drift gillnetting.

*Response:* As part of this rulemaking, NMFS analyzed the impacts of various bycatch alternatives on bycatch species and protected resources in an attempt to minimize bycatch and bycatch mortality in HMS fisheries to the extent practicable. In this final action, NMFS is not implementing measures to limit or remove gillnet gear from the list of authorized gears. A buyout program is beyond the scope of this rulemaking, but could be considered in the future should funding become available.

*Comment 7:* The only way to fish for small sharpnose sharks is with a drift gillnet in deep water. Strikenet gear will not work because it only catches large coastal sharks.

*Response:* NMFS has reviewed available shark gillnet fishery observer data and agrees that strikenet gear does not appear to be effective at catching Atlantic sharpnose sharks. For this reason, and reasons discussed above, drift gillnet gear will not be banned in this rulemaking.

*Comment 8:* Enforcement efforts in the EEZ could be complicated due to similarities between drift gillnet and strikenet gear.

*Response:* NMFS agrees that enforcement efforts could be complicated due to similarities between drift gillnet and strikenet gear. For this reason, and reasons discussed above, drift gillnet gear will not be banned in this rulemaking.

*Comment 9:* The five vessels actively using drift gillnet should be given gillnet endorsements on their directed shark permits to limit entry into the fishery. NMFS should consider allowing the five fishing vessels currently in the fishery to continue and prevent any new vessels from entering the fishery.

*Response:* NMFS did not consider specific permit endorsements in this rulemaking, but may consider options to limit vessel participation in the shark gillnet fishery in the future.

*Comment 10:* NMFS received several comments regarding the modification of shark gillnet gear to reduce protected resources interactions. The comments include: Instead of banning the gear, NMFS should reduce the allowable length of the gear. NMFS should consider gear modifications to reduce bycatch. My vessel accounted for a large number of interactions between marine mammals and sea turtles until I replaced a large section of my gear; while I still have some interactions with them, they swim away unharmed and are observed to be healthy. I used new gear this past summer with tighter mesh and this increased my sharpnose catch and decreased my interactions with protected species. Fishermen who use shark drift gillnet gear have adapted their gear using corks to keep the gear high in the water and allow any entangled turtles to get to the surface and survive. Fishermen who do not usually fish in the fishery or who use stab nets are the fishermen who catch dead turtles. Instead of banning drift gillnets, NMFS should consider the use of pingers to reduce interactions with protected species.

*Response:* Gear modifications have been shown to be effective in other fisheries; however, some modification measures can be difficult to enforce or can be circumvented by altering fishing patterns, resulting in no bycatch reduction. NMFS continues to support research projects regarding effectiveness of gear modifications, to the extent that funding allows, and will consider the possibility gear modifications in a future rulemaking.

*Comment 11:* NMFS received several comments regarding sea turtle interactions in the shark gillnet fishery. The comments include: In terms of actual numbers, relatively few sea turtles have been captured in the shark gillnet fisheries. While this fishery is supposed to have high levels of observer coverage, this is not always the case. As noted in the June 2001 BiOp, this fishery can have a large impact on leatherback sea turtles at a time when reproductive females are in the area. I have been fishing 18 years and carried an observer for 10 years; in those 10 years, I have only caught one sea turtle.

*Response:* The best available information indicates that relatively few sea turtles have been captured in the shark gillnet fishery. The October 2003 BiOp estimated that over a five-year period the expected take of sea turtles in the shark gillnet fishery would be 10 total loggerhead sea turtle captures with one mortality, and 22 total leatherback sea turtles captures with three mortalities. The BiOp concluded that

the continued operation of the shark fisheries, including the shark gillnet fishery, are not likely to jeopardize the continued existence of the endangered Kemp's Ridley, green, hawksbill, and leatherback sea turtles, and the threatened loggerhead sea turtle. Although there were multiple interactions with leatherback turtles during 2001, NMFS believes this was an anomalous event, possibly associated with changes in environmental conditions. NMFS believes that events such as this can be mitigated through observer coverage, gear modifications, and enforcement.

*Comment 12:* I can strike at sharks without "striking" as you define it. I do not use the second vessel.

*Response:* NMFS is aware that some vessels have experimented with setting strikenet without using a second vessel. To the extent that these methods are more economical for fishermen, NMFS supports these methods. However, the use of shark strikenet gear in a method inconsistent with the current definitions inside the restricted area could constitute a violation. Requirements for strikenet vessels operating in the restricted area are described in the Atlantic Large Whale Take Reduction Plan regulations.

*Comment 13:* NMFS says that only six vessels are in the drift gillnet fishery. There are actually about a dozen that would be affected.

*Response:* The best available information indicates that there are five vessels that actively target sharks in the shark gillnet fishery. NMFS believes that there are a number of fishermen who land sharks incidental to their target species in other gillnet fisheries (e.g. bluefish, croaker, mackerel). All of these fishermen are affected by the general management measures such as changes in the commercial quota and the establishment of regional quotas. However, only those fishermen who actively targeted sharks would have been affected by the proposed measure to prohibit drift gillnet gear. NMFS is not finalizing that prohibition in this rule.

*Comment 14:* The bycatch of red drum in the shark gillnet fishery is of serious concern, given interstate effort to reduce bycatch of this species. Red drum is an overfished species whose harvest is strictly regulated with slot limits to promote its recovery.

*Response:* Red drum is caught incidentally in the shark gillnet fishery. However, the limited amounts of observed bycatch of this species in the shark gillnet fishery is not expected to impede recovery of the stock. Observer data indicate that the shark gillnet

fishery does not catch large numbers of red drum. In 2002, 28 red drum were observed caught, of which, 50 percent were released alive.

*Comment 15:* Finetooth sharks are rare in trawl catches off Georgia. However, significant numbers are taken by the shark drift gillnet fishery. Elimination of the shark drift gillnet fishery would contribute towards reducing the overfishing of finetooth sharks.

*Response:* The shark gillnet fishery has been observed to target Atlantic sharpnose and blacktip sharks. Elimination of the shark drift gillnet fishery would not be expected to reduce significantly overfishing of finetooth sharks, because they are not a target species. In 2002, 21,978 sharks were observed caught in the shark gillnet fishery. Of those sharks observed caught, 1,615 (7.3 percent) were finetooth sharks.

*Comment 16:* The Atlantic sharpnose I catch have stomachs full of juvenile sea turtles. NMFS should calculate how many sea turtles are saved by allowing the drift gillnet fishery to continue.

*Response:* NMFS is concerned with all sources of mortality for protected resources and realizes that the ecosystem as a whole needs to be considered when rebuilding species. However, NMFS' can only influence and mitigate anthropogenic sources of mortality, specifically, those due to interactions with fishing gear within NMFS' jurisdiction.

*ii. VMS.*

*Comment 1:* The use of VMS on bottom longline and gillnet vessels, combined with time/area closures to protect juveniles, may help reduce mortality of vulnerable shark stocks beyond what the quota cuts will achieve.

*Response:* The preferred time/area closure is designed to reduce bycatch and mortality of neonate and juvenile dusky and sandbar sharks in a known pupping and nursery area. The preferred time/area closure could reduce fishing mortality on the stages that contribute the most to population growth. The use of VMS on shark bottom longline and gillnet vessels will contribute to the enforcement of time/area closures and may enhance the rebuilding of LCS to maximum sustainable yield.

*Comment 2:* As a gillnet fisherman, I prefer observers over VMS.

*Response:* While NMFS understands that individual fishermen may prefer using observers over VMS, the VMS alternative is preferred as an aid in enforcing time/area closures. Fishery observers are used to monitor catch and bycatch, protected species interactions,

and fishery characteristics, and not used specifically for enforcement purposes.

*Comment 3:* One commenter was concerned with the utilization of VMS to monitor activities when vessels are engaged in normal fishing operations and not operating illegally.

*Response:* Currently, VMS is used in many fisheries managed by NMFS. VMS is the best technology at this time for monitoring vessel locations. It can be used by NMFS to reduce observer program costs, improve the enforcement of time/area closures, to deter illegal fishing, and to increase the efficiency of surveillance patrols. With respect to the shark gillnet and bottom longline time/area closures in particular, the size of the closed areas significantly diminishes the likelihood of detection through conventional means. Traditional methods of surveillance in these areas would be cost prohibitive. Other possible benefits of the VMS include increased safety at sea and dependable and confidential communications.

*Comment 4:* If VMS is implemented, NMFS should hold operators, not vessel owners, responsible for violations because the owner has little control over what the operator does with the vessel once it leaves the dock.

*Response:* NMFS is aware of vessel owners' concerns, however, for enforcement purposes, both vessel owners and operators will continue to be subject to liability for violations. Vessel owners can employ or terminate operators based on their compliance with fishery regulations.

*Comment 5:* VMS should be phased in to reduce negative economic impacts and blended with a communication adaptation that the U.S. Coast Guard uses as a homeland security technique.

*Response:* The VMS requirement will only be required for five shark gillnet vessels and any shark bottom longline vessels operating near the time/area closure (approximately 14 vessels). Because this measure will be required for only a select few vessels, it can be implemented with minimal economic impacts and will not affect the vast majority of the shark fishing fleet. To minimize impacts and to give time to NMFS to issue a type approval notice, NMFS is delaying the effective date of VMS in the shark fishery. In regards to communications adaptations and uses of VMS for homeland security, NMFS supports these uses.

*Comment 6:* NMFS received several comments regarding the number of vessels required to install and activate a VMS unit. The comments include: VMS is required for all pelagic longline vessels, why would it only be required for a portion of the bottom longline

fleet? VMS should be expanded to all vessels all-year round.

*Response:* VMS is required for all pelagic longline vessels to aid in the enforcement of multiple large scale closed areas in a highly mobile fishery. In addition to approximately five shark gillnet vessels, the VMS requirement analyzed in this rule would require vessels located near the time/area closure (approximately 14 vessels) to install and activate a VMS unit.

Analyses indicate that while vessels in the pelagic longline fleet are highly mobile, vessels in the bottom longline fleet rarely fish far from their reported homeport. Thus, NMFS believes that requiring VMS for only that sub-population of the shark fishing fleet that fishes in the vicinity of the time/area closures is appropriate because the intent of the measure is to monitor vessel activity to ensure that time/area closures are effective.

*Comment 7:* If gillnet gear remains authorized for use in the shark fishery, VMS must be mandatory to ensure compliance during right whale calving season and to facilitate cooperative state/Federal enforcement efforts to monitor this fishery.

*Response:* The final action requires shark gillnet vessels to install and activate VMS units during the right whale calving season (November 15–March 31). This measure is expected to facilitate enforcement efforts.

### iii. Other Gear Restrictions.

*Comment 1:* We support all of the alternatives being considered including limited soak times, reducing the length of the gear, and, especially requiring circle hooks. Reducing soak time and requiring the use of circle hooks could be an effective means of protecting juvenile sharks. These measures could reduce discard mortality of dusky sharks, which remains a candidate for listing under ESA, and other bycatch species.

*Response:* NMFS considered multiple gear restriction alternatives in Amendment 1. The preferred alternatives that require VMS on a sub population of commercial shark fishing vessels as well as require shark bottom longline vessels to use corrodible hooks, possess release equipment, and move one nautical mile after an interaction with a protected species.

*Comment 2:* It is unclear from the analyses presented in the draft amendment whether the most effective measure to reduce mortality of small sharks would be a series of time/area closures, a minimum size combined with measures to reduce bycatch, or some other plan. Therefore, we express support for measures that seem likely to

reduce juvenile shark mortality, especially area closures. However, we encourage NMFS to do a more thorough analysis of the effectiveness of each bycatch reduction measure and to develop a comprehensive bycatch reduction plan.

*Response:* NMFS believes that a combination of measures will be most effective in reducing bycatch and bycatch mortality of protected species and small sharks in the shark fishery. Thus, NMFS is implementing a time/area closure, a requirement to possess and use release equipment, and a minimum size in the recreational fishery. NMFS has also issued an implementation plan to enhance current bycatch reduction efforts in HMS fisheries under the guidance of the 1998 NMFS Report, *Managing the Nation's Bycatch*. This report, which is posted on the NMFS website, contains the Agency's national bycatch goal, which is "to implement conservation and management measures for living marine resources that will minimize, the extent practicable, bycatch and the mortality of bycatch that cannot be avoided." The NMFS National Bycatch Strategy and the HMS Bycatch Implementation Plan are discussed in Amendment 1.

*Comment 3:* The requirement of non-stainless steel corrodible hooks should be readily accepted by the industry and, because most vessels already use these hooks, there will be little or no economic hardships or changes in fishing practices. These hooks corrode in a much shorter period of time and would decrease impairment of feeding and wounding of sea turtles and thus, increase post-release survival.

*Response:* NMFS agrees and is implementing a requirement for their use on shark bottom longline vessels.

*Comment 4:* NMFS received several comments regarding the requirement for shark bottom longline vessels to move one nautical mile after an interaction with a marine mammal or sea turtle. The comments include: Requiring vessels to move one nautical mile after an interaction with a sea turtle or marine mammal should not significantly affect normal fishing operations because most vessels already move more than one mile after hauling their gear particularly if the set caught sea turtles or a lot of juvenile sharks. Some vessels travel substantially further to dump carcasses from dressed fish in order to prevent contamination of the fishing grounds. Requiring a vessel to move after an interaction with a protected species can be difficult to enforce unless enforcement personnel are on the scene when the gear is retrieved. If sea turtles are caught in

gear, the vessel should move 20 nautical miles away, not one.

*Response:* NMFS believes that the requirement for shark bottom longline vessels to move one nautical mile after an interaction with a protected species is appropriate for the shark bottom longline fishery. This requirement would reduce the probability of another interaction with a protected species because marine mammals, sawfish, and sea turtles often aggregate in clusters. By requiring vessels to move after an interaction, the vessel would increase the likelihood of avoiding additional animals in a cluster when setting subsequent gear. This requirement could increase fuel costs due to increased the time transiting to another fishing area and increase time needed to fish if alternate fishing grounds are not as productive for target species. However, because few marine mammals, sawfish, or sea turtles have been observed caught, NMFS does not believe that this requirement would affect more than a few trips for all vessels combined, each year. Moreover, NMFS expects that vessels will comply with the requirement because, during normal fishing practices, vessels may already move more than one mile after hauling their gear. Moving more than one mile increases the chance of a vessel encountering another cluster of protected species.

*Comment 5:* NMFS received several comments regarding the possession of release equipment on shark bottom longline vessels. The comments include: The safe removal of hooks and line before release can dramatically increase the chances of survival of the released bycatch and has been endorsed by the U.S. pelagic longline fleet, ICCAT, Inter-American Tropical Tuna Commission (IATTC), and various non-governmental organizations (NGOs). The Southeast Fisheries Science Center has developed a line cutter that is safe and effective in removing line from entangled marine mammals and sea turtles in the pelagic longline fishery. Vessels that can boat smaller sea turtles should boat them in order to better control their gear removal procedures. Dehooking devices, line cutters, and dip nets are relatively simple to use and techniques can easily be transferred from fishery to fishery and nation to nation.

*Response:* NMFS agrees that there are benefits of using release equipment and is implementing an alternative that will require the possession of release equipment on shark bottom longline vessels.

*Comment 6:* Requiring workshops to certify that a permit holder has passed a training course on the proper use of

release equipment would aid enforcement and be more cost effective as a whole. These workshops could also serve as an educational forum for fishermen to learn the latest research and regulations, share concepts for their fishery that could be transferred to other fisheries (e.g., recreational to commercial), gain a feeling of stewardship of the environment and their fishery, learn release techniques in a controlled environment, and develop and promote educational video tapes or literature. The workshops would also give fishermen a chance to talk to, and receive answers from, people in NMFS about regulations they do not understand. This could lead to a better working relationship over time.

*Response:* NMFS intends to move forward with this measure in a future rulemaking that will evaluate alternatives and implementation issues. In the interim, NMFS will attempt to make voluntary workshops available to the public.

*Comment 7:* We remain deeply concerned that NMFS has failed to offer options for increasing compliance in the recreational fishery after repeatedly acknowledging that anglers do not adhere to the shark regulations and that this non-compliance may be inhibiting stock rebuilding. We urge NMFS to develop programs for angler education in species identification and other efforts to improve compliance. Angler training should be a pre-requisite for obtaining an HMS Angling category permit.

*Response:* NMFS agrees that angler education could significantly improve compliance in the recreational shark fishery. In Amendment 1, NMFS analyzed an alternative that would require commercial and recreational fishermen to attend mandatory workshops discussing shark (and possibly other) species identification, marine mammal, sawfish, and sea turtle release techniques, and current regulations. NMFS received public comment in favor of mandatory workshops, and while it appears that mandatory workshops would be beneficial, outstanding implementation and operational issues remain that need to be addressed. Based on these issues, NMFS intends to move forward with this measure in a future rulemaking, and will attempt to make voluntary workshops, informational pamphlets, and an identification guide available in the interim.

*Comment 8:* At this time, we cannot support mandatory workshops. Rather, increased fiscal and other agency resources need to be expanded to significantly increase the distribution

and availability of educational materials such as improved printed materials, electronic media, and more. Specific instructional/training workshops should be developed to focus on commercial fishing fleets/organizations, charter fishermen, tournament organizers, Marine Recreational Fisheries Statistics Survey (MRFSS)/other survey clerks, state/federal enforcement agencies, and more. Partnerships with other federal and state agencies to distribute this material should be explored.

*Response:* NMFS is working to increase outreach and available educational materials. Currently, NMFS is distributing Atlantic shark recreational fishery brochures containing information regarding HMS Angling category permits, HMS Charter/Headboat permits, bag limits and minimum sizes, release information, landing restrictions, the no sale provision, HMS tournament registration, tagging information, as well as species that may be retained, and species that must be released. NMFS is also currently producing an identification guide for sharks, tunas, and billfishes of the Atlantic and Gulf of Mexico. As discussed above, NMFS will explore mandatory workshops in a future rulemaking.

*Comment 9:* While the United States is trying to protect sea turtles, fishermen in Florida watch fishermen just outside the U.S. EEZ in Cuba and the Bahamas kill them. I recently watched one vessel in the Bahamas kill 39 sea turtles.

*Response:* Sea turtles are classified as endangered or threatened species in the United States and NMFS has implemented many measures to conserve these species. NMFS does not have the authority to determine how neighboring countries manage their resources, but will continue to pursue improvements in international sea turtle conservation measures.

*Comment 10:* Amendment 1 does not adequately address the incidental capture of threatened and endangered sea turtles in shark fisheries, especially shark bottom longlines. Reducing the rate of bycatch and reducing the mortality of sea turtles needs to be a primary priority. The impact of shark fisheries on sea turtles appears to be purposefully masked by key omissions in Amendment 1 about the level of sea turtle take and associated post-hooking mortality. The June 2001 BiOp estimates that 207 to 517 loggerheads are caught in the shark bottom longline fishery annually. Many of these animals probably die after release. Significantly more observer coverage is needed to improve confidence intervals.

Amendment 1 fails to estimate and

discuss the implications of post-hooking mortality of sea turtles. The June 2001 BiOp provides estimates of post-hooking mortality on pelagic longlines. This mortality rate in bottom longlines is expected to be higher because the turtles are trapped on the bottom unable to breathe. Because effort in shark fisheries has increased since 2001, many hundreds of sea turtles are being killed annually in shark longline fisheries.

*Response:* NMFS Protected Resources Division has prepared a new BiOp for this rulemaking that analyzes the incidental capture of protected resources in the shark fisheries. An estimated 222 loggerhead sea turtles were incidentally caught in the shark bottom longline fishery from 1994 through 2002. Based on observer data and the reported effort in the shark bottom longline fishery, it is estimated that 51 loggerhead turtles will be killed as a result of an interaction with a bottom longline. The highest estimate of post release mortality for sea turtles interacting with pelagic longlines is 42 percent for turtles ingesting hooks. Assuming all loggerhead turtles that ingest a hook are subject to this mortality rate, results in another 72 loggerhead turtles will be killed. This gives a total of 123 loggerhead turtles killed per year as a result of an interaction with a bottom longline. An estimate of 30 leatherback sea turtles were incidentally caught from 1994 through 2002 in the shark bottom longline fishery. Using the same methodology for leatherback sea turtle interactions results in an estimate of 17 leatherback turtles killed each year in this fishery. The leatherback mortality is very conservative because it is known that leatherback turtles rarely ingest or bite hooks, most are usually foul hooked on their flippers or carapaces, reducing the likelihood of post-hooking release mortality. However, leatherback-specific data for this fishery are not available and therefore the most conservative estimate was used. NMFS agrees that the precision of the estimates is likely to improve with greater observer coverage. One of the conditions of the BiOp is that NMFS must continue to implement an observer program at current or higher levels to monitor incidental takes of protected resources in Atlantic (including Gulf of Mexico) shark fisheries. NMFS disagrees that effort in shark fisheries has increased since 2001. Based on reported effort in the logbook data and the observer programs, the total number of hooks set in the shark bottom longline fishery in 2000–2002, ranged from 2.5 to 2.7 million hooks per year. This level of

effort is approximately 62 percent less than the reported effort in 1996. In addition, based on current and historical participation, implementation of limited access in the shark fisheries reduced the number of shark permit holders from over 2,200 before limited access to 584 in October of 2003.

*Comment 11:* Only one alternative addresses sea turtle bycatch by recommending that fishing vessels move one nautical mile after an interaction with a sea turtle. Dip nets and line cutters should also be required.

*Response:* To reduce sea turtle mortality, NMFS is implementing an alternative that will require vessels with shark bottom longline gear to use corrodible hooks, possess release equipment (line cutters, dip nets, and when approved, dehooking devices), as well as move one nautical mile after an interaction with a marine mammal or sea turtle.

*Comment 12:* NMFS needs to conduct experiments to determine if circle hooks are effective in reducing the number of turtles caught and the position of the hooks in captured animals.

*Response:* The June 14, 2001, BiOp included a recommendation that NMFS conduct a three-year experimental fishery in the northeast distant statistical reporting area (NED) to attempt to reduce the interactions between pelagic longline gear and sea turtles. In the summer and fall of 2002, tested the use of circle hooks, mackerel bait, and shortened daylight soak time to examine their usefulness in reducing the capture of sea turtles. Although NMFS did not specifically investigate the use of circle hooks to reduce interactions with sea turtles in the shark bottom longline fishery, information from the NED experiments could be transferable to or provide helpful information for other fisheries.

*Comment 13:* We support the preferred alternatives of line cutters, dip nets, and dehooking devices and feel they would reduce mortality by recreational fishermen as well.

*Response:* Release gear may be beneficial in recreational fisheries; however, requiring this equipment for anglers who generally do not use heavy monofilament line and rarely encounter protected species is not practical at this time. NMFS does support the voluntary use of release gear in recreational shark fisheries.

*Comment 14:* NMFS should consider a variation of the no discard alternative (retention of all sharks with no discards allowed) in order to encourage reducing regulatory discards. This is possible but not practicable in today's marketplace and would be tough to enforce. Other

portions of the regulations, such as no filleting at sea or the current trip limit, would need to be changed.

*Response:* NMFS analyzed the no-discard alternative and determined that it could virtually eliminate the bycatch of sharks in the commercial shark fishery and reduce fishing effort needed to reach trip limits and fill quotas, thereby reducing potential interactions with prohibited species. However, this alternative could also increase the mortality of juvenile sharks, prohibited species, and other sharks not normally retained. Fishermen may also illegally high-grade and discard less marketable species to avoid reaching the trip limit, increasing waste. If no discards were allowed, trip limits and quotas could be reached more quickly, resulting in derby fishing conditions. Derby conditions may result in depressed ex-vessel prices, reduced revenues, market gluts, and concerns for the safety of fishermen at sea. Due to ecological, social, and economic concerns, NMFS does not believe this alternative is appropriate for the commercial shark fishery at this time. NMFS may consider a variation of this alternative in a future rulemaking.

*Comment 15:* NMFS received several comments regarding bycatch of sharks and non-target species. The comments include: Amendment 1 does not contain a comprehensive strategy to avoid and reduce shark bycatch, as mandated by law. For years NMFS has highlighted the shrimp trawl and menhaden purse seine fisheries as problem fisheries for shark bycatch, yet NMFS has not offered any suggestion on how to address these bycatch sources. NMFS must take action to address these continual problems. The non-targeted species and sub-legal bycatch that are routinely discarded as a result of indiscriminate gillnets and longlines is disturbing and a waste of our marine resources.

*Response:* Bycatch of sharks in trawl, set-net, and hook and line fisheries is discussed in Amendment 1. In this rule, NMFS specifically addresses shark bycatch in HMS fisheries by implementing several measures designed to reduce bycatch and bycatch mortality including: a time/area closure, VMS requirements for shark bottom longline and gillnet vessels, requiring the use of corrodible hooks, and requiring the possession of release equipment (line cutters, dipnets, and, when approved, dehooking devices). As described above, NMFS has also issued a bycatch implementation plan.

*Comment 16:* NMFS needs to examine the bycatch of sharks in monk fishing gear.

*Response:* NMFS will investigate the bycatch of sharks in a number of

fisheries to determine if measures are needed to minimize shark bycatch and bycatch mortality.

## B. Time/Area Closure

*Comment 1:* NMFS received several comments regarding the use of time/area closures in general. These included: NMFS should establish sanctuaries for all fish species. The entire fishery should be closed from January through July to protect pupping females and pups. NMFS should implement seasonal closures to longlines and gillnets in coastal nursery grounds to protect all shark species.

*Response:* The time/area closure is based on specific information from the shark bottom longline observer program that indicates a high proportion of prohibited dusky shark and juvenile sandbar sharks being caught off North Carolina from January through July. Closing the entire shark fishery from January through July is not warranted. The closure will afford some protection to all species that are caught on bottom longline gear during that time of year.

*Comment 2:* One commenter noted that NMFS should implement the time/area closure alternative that would close all shark nursing and pupping grounds based on EFH for neonate and juvenile sharks, in order to protect juvenile sharks from indiscriminate commercial gears. Alternatively, another commenter noted that they cannot support the blanket alternative for closing all pupping and nursery grounds because each proposal needs to be fully evaluated and based on acceptable understanding of stock status, life histories, and defined EFH for each species.

*Response:* NMFS considered an alternative that would close all pupping and nursery grounds, *i.e.*, nearly all coastal waters off the U.S. Atlantic coast and the Gulf of Mexico, but this final rule would implement a targeted time/area closure for a specific time period. Currently, there are insufficient data to support a closure of all EFH pupping and nursery areas. Moreover, a closure of all coastal waters would have had a severe economic impact on fishing communities.

*Comment 3:* Any delay in implementation of closures may undermine management objectives.

*Response:* Delayed effectiveness of time/area closures has been used in the past, and is a reasonable approach to allow fishermen to adjust to the regulations that affect fishing areas and to the potential economic changes incurred by a time/area closure.

*Comment 4:* NMFS should consider time/area closures to protect adult dusky sharks as well as juveniles.

*Response:* The time/area closure is based on information relating to all life stages of dusky sharks, including adults. The time/area closure is expected to reduce the catch of all dusky sharks by approximately 79 percent and adult dusky sharks by 65 percent.

*Comment 5:* Any closure that is considered should be imposed on all commercial and recreational shark gear.

*Response:* Recreational gears have the capability to release sharks alive, whereas many sharks, and dusky sharks in particular, have low survival rates when caught with commercial gear. This is due in part to the longer soak times required in the commercial fishery. Dusky sharks, for example, have an at-vessel mortality rate of 82 percent. If data in the future indicate adverse impacts from other gears, NMFS will consider closures for other gear types, including recreational.

*Comment 6:* The Environmental Protection Agency (EPA) recommends marine protected areas (MPAs) for overfished stocks; marine protected areas for sharks that exhibit territorial behavior in breeding would likely benefit.

*Response:* NMFS has selected an alternative that implements a targeted time/area closure to protect prohibited dusky sharks and juvenile sandbar sharks which are currently experiencing overfishing. This time/area closure is a type of MPA and is also an effective means to reduce fishing mortality and help rebuild stocks. Based on the best available scientific data, NMFS has taken steps to identify and protect EFH and Habitat Areas of Particular Concern (HAPCs) for both dusky and sandbar sharks. The time/area closure will prevent the catch of both pregnant females and neonates during the critical pupping stage.

*Comment 7:* Any regulations imposing a closure should have a clear scientific exit strategy to reduce and/or eliminate the closure when scientifically justified.

*Response:* NMFS agrees that closed areas should be re-opened when scientifically justified and will thus be reviewing the status of both dusky and sandbar sharks, the two species most affected by the time/area closure, in the near future. Based on the status of those stock assessments and other information regarding the effectiveness of the closure, NMFS may consider revising the size and scope of the closure, the duration of the closure, and potentially elimination of the closure.

*Comment 8:* NMFS received several comments specific to the proposed time/area closure. These comments included: Closing nursery areas has always been seen as one of the most beneficial management measures possible for sharks and has been recommended by nearly every shark stock assessment group assembled; thus we support the proposed time/area closure and NMFS efforts to work with the two Fishery Management Councils to protect important state nursery waters. NMFS should close the proposed mid-Atlantic region to bottom longline fishing from January through July to protect nursery and pupping areas.

*Response:* Time/area closures are an important tool in reducing mortality of prohibited species and juvenile life stages of sharks, and the current time/area closure will help to protect dusky sharks and rebuild sandbar sharks.

*Comment 9:* NMFS should look at the fish being sold; this will show that the fishermen are not selling small sharks. NMFS should look at the average carcass weight, not length.

*Response:* One of the principal reasons for the time/area closure was to protect prohibited dusky sharks, which are illegal to sell. Additionally, because dusky sharks do not mature until approximately 10 ft (3 m) fork length (FL), even large dusky sharks are considered juveniles. For years, the shark observer program and many other researchers have been collecting length data for sharks because many sharks are released without being landed and weights would be difficult if not impossible to collect. The length-to-weight relationship is used by scientists to determine the life stage and sexual maturity of most fish species, including sharks. Shark bottom longline observer data show high rates of neonate and juvenile sandbar sharks less than 137 cm FL being caught and landed in the winter fishery off of North Carolina. The 137 cm FL corresponds to the recreational minimum size limit for sharks which is 4.5 feet FL. It also corresponds to the female smallest size at maturity. For instance, one data series for the winter fishery off North Carolina in 2001 shows approximately 83 percent of 1,188 sandbar sharks observed caught were less than 137 cm FL, with an average length of approximately 120 cm FL. Sandbar shark pups are born from March to early August and measure about 60 cm FL at birth.

*Comment 10:* The information used to support the time/area closure is flawed because shark observers are mis-identifying dusky sharks.

*Response:* The commercial shark bottom longline fishery observers are trained to identify all species of sharks, including dusky sharks. NMFS acknowledges that some misidentification of sharks may occur, however, the preponderance of the data, including fishery independent data collected by researchers and trained biologists who participate in tagging efforts indicates that the area off North Carolina is a pupping and nursery area for dusky as well as sandbar sharks. NMFS did not rely solely on information from the shark observer program to make its determination for a time/area closure, but relies on many other data sources as well.

*Comment 11:* Dusky shark catches before 1999 should not be considered because we could not land them then; since 1999, our catch of dusky sharks has decreased.

*Response:* Since dusky sharks were prohibited in June 2000, the data from that point forward has been analyzed separately from earlier data in the final Amendment. However, it is also important to examine data prior to 2000 because it helps to establish the high rate of historical bycatch and the importance of the area as a pupping and nursery ground for both dusky and sandbar sharks. In analyzing the shorter time period, NMFS found that the number of dusky sharks being caught off North Carolina and elsewhere has declined since June 2000, but that a much higher percentage of dusky shark are observed caught in the time/area closure than in other areas, particularly when the relatively small size of the time/area closure is compared to all other open areas of the Atlantic and Gulf of Mexico.

*Comment 12:* We do not support the time/area closure at this time because of the significant economic and social impacts that would result in the affected fishing communities and the fact that the document does not sufficiently analyze the closure or enforcement of the closure. If done properly, a time/area closure can benefit all concerned; however, the proposed time/area closure is not reasonable. The decision to close the area seems to be driving the science.

*Response:* The original time/area closure proposed in the draft Amendment would have closed a large area (31,487 square nautical miles) and may have had severe economic and social impacts. Based on public comments, NMFS re-analyzed the data and proposed a revised time/area closure of 4,490 square nautical miles in part to mitigate social and economic impacts on fishing communities in

North Carolina. The revised time/area closure will still be effective at reducing dusky catch by 79 percent, and neonate and juvenile sandbar catch by 55 percent.

*Comment 13:* It is not clear if other measures are sufficient to rebuild sandbar and dusky sharks without the addition of time/area closures.

*Response:* Rebuilding of dusky and sandbar sharks is based on the combination of management measures including the reduction in quota, the time/area closure, gear restrictions that should reduce post-release mortality, and a minimum size on recreationally caught sharks. Without the time/area closure, NMFS would need to implement other reductions or restrictions in order to ensure that LCS are rebuilt within the necessary time frame.

*Comment 14:* NMFS received a number of comments regarding the depth of the closures. Comments included: most nursery grounds are in nearshore areas; closing areas 20 fathoms in depth to the shore should be suitable to protect neonates and juveniles. NMFS does not need to close areas out to the 200 mile limit unless the desire is to fiercely impact these shark fishing entities. Regions outside of 20 fathoms should remain open. We question any justification for closing anything other than state waters during pupping seasons. We cannot support closures inside of 10, 20, or any other fathom mark at this time.

*Response:* NMFS examined catches based on depth and found that both dusky sharks and juvenile sandbar sharks are caught at depths of up to 50 fathoms. Since large numbers of sharks appear to be caught in a line along the 50 fathom contour, a buffer of approximately two miles was included to extend the seaward boundary of the time/area closure to approximately 60 to 80 fathoms. The time/area closure is one of the few known areas where shark pupping and nursery grounds extend into Federal waters. It is also one of the only areas designated as a HAPC (for sandbar sharks) in Federal waters.

*Comment 15:* NMFS received several comments regarding the proposed time/area closure and the burden being placed on North Carolina fishermen. Comments included: Juvenile sharks are caught all along the coast and North Carolina fishermen are being targeted unfairly. If closures are needed to rebuild sharks, then fishermen in all states need to share the task, not just North Carolina fishermen. The time/area closure is payback for previous lawsuits by the commercial industry.

*Response:* Juvenile sharks are caught along much of the U.S. Atlantic and Gulf of Mexico coasts; however, the proportion of juvenile and neonate dusky and sandbar sharks being caught off North Carolina is substantially higher than in other areas. This is because the waters off North Carolina are pupping and nursery areas for these two species, and pregnant females, pups and juveniles aggregate in the area. EFH areas for both sandbar and dusky sharks, and HAPC areas for sandbar sharks have been designated off North Carolina. Data indicate that from 1994–2002, 1,099 or 79 percent of all dusky sharks were caught in the time/area closure from January through July. Of these, 1,016 or 92 percent were neonates or juveniles. Of the 12,445 sandbar sharks observed caught in the Atlantic from 1994–2002, 6,755 or 54 percent were caught in the time/area closure between January and July, of which 61 percent were juveniles and neonates. While there may be other nursery and pupping areas in coastal waters, this is one of the only areas where such a high proportion of neonate and juvenile sharks have been documented being caught in Federal waters.

*Comment 16:* The proposed time/area closure is absurd; the period should be April 1 through June 30 or maybe July 15. NMFS should not close the area for the entire time from January through July because most fishermen do not see any pregnant females in the area after mid-July.

*Response:* Data from the commercial shark observer program indicates that there are substantial numbers of juvenile and neonate sharks being caught in all months from January through July, not just from April through July. This is because in addition to being a primary pupping area from May to August, the area is also a secondary nursery and overwintering ground for young-of-the-year and juvenile sharks.

*Comment 17:* The five vessels with a history of landing most of the juvenile sandbar sharks should be given some options on how to catch bigger sharks.

*Response:* NMFS has not analyzed specific information regarding which vessels are catching small or large sharks, but has relied instead upon analysis of all data gathered in the time/area closure over various time periods to form the basis for the closure. Even if information were available to indicate that certain vessels were responsible for the majority of juvenile landings, options to remedy the problem would have to be made available to the entire fleet, not just selected vessels. Commercial shark fishery participants

who fish in the area are encouraged to share information on fishing gears, methods, and locations that might reduce the catch of juvenile sharks. The intent of the closure is to reduce all interactions between commercial fishing operations and pupping and nursery grounds and hence reduce both the catch and mortality of dusky and juvenile sandbar sharks.

*Comment 18:* Shrimp nets catch more small sharks than the directed shark fishery in North Carolina.

*Response:* NMFS agrees that the shrimp fishery is responsible for large catches of SCS. The bycatch of SCS in the shrimp trawl fishery in the Gulf of Mexico has been documented and was taken into account during the latest 2002 SCS stock assessment which indicates that SCS are not overfished and overfishing is not occurring. While there may be benefits to the SCS stock as a result of the closure, the intent of the closure was to reduce the catch of juvenile sandbar sharks and prohibited dusky sharks.

*Comment 19:* If an area is closed, landings should not be allowed in states adjacent to the area no matter where the fish are harvested.

*Response:* NMFS does not agree that adjacent states should be closed as well, or that landings should not be allowed in adjacent states. The time/area closure is based on specific information about catches off North Carolina in a known pupping and nursery area. Although there are pupping and nursery areas in state waters, most notably Chesapeake Bay, Maryland, and Delaware Bay, Delaware, fishing effort there has historically been low. Additionally, most other areas adjacent to the closure off North Carolina are not known pupping and nursery areas and have a much higher proportion of adult sandbar sharks, and far fewer dusky sharks. NMFS is implementing VMS to aid in enforcement of the time/area closure. VMS will benefit fishermen by allowing them to traverse the closed area to offload.

*Comment 20:* The time/area closure will push more vessels into other areas such as the Florida East Coast. This combined with the regional quotas and trimester seasons will mean that all the vessels will be working for one sixth of the normal January opening quota. There is only a small area off of Florida where you can shark fish. If more vessels go to that area, there will not be enough room to set gear.

*Response:* The original time/area closure proposed in the draft Amendment would have closed all waters off North Carolina, and portions of Virginia and South Carolina to

commercial bottom longline fishing. Based on public comments that the catch of dusky sharks has declined in recent years, and that the time/area closure would have severe economic impacts on commercial fishing entities in those states, NMFS re-examined the data for the time/area closure, specifically by looking at a shorter time period of catches from 2001–2002. Based on an analysis of the data, NMFS revised the time/area closure to close the portion of the original time/area closure which had the highest catch rate of dusky and juvenile sandbar sharks. NMFS believes that the revised time/area closure will reduce the catch of dusky and juvenile sandbar sharks, while also mitigating the economic impact of the closure by allowing vessels to continue fishing in waters north and south of the time/area closure off North Carolina from January through July. This should prevent vessels from having to fish in Florida, and will allow the quota to be harvested over a larger area.

*Comment 21:* NMFS received several comments regarding how the proposed boundaries were established. Comments included: NMFS needs to improve the transparency in how the time/area boundaries were established and include maps of all observed trips and research cruises, not just observed takes of sandbar and dusky sharks.

*Response:* The final Amendment provides a more thorough explanation and justification for the boundaries established for the revised time/area closure. The seaward boundary of the revised area follows the 60 to 80 fathom contour, and was selected to include all observed catches of dusky sharks and sandbar sharks. No dusky or sandbar sharks were observed caught east of approximately 50 fathoms. Since large numbers of sharks appear to be caught in a line along the 50 fathom contour, a buffer of approximately two miles was included thus extending the boundary to 60 to 80 fathoms. The northern boundary was selected to include the HAPC for sandbar sharks off Cape Hatteras, and because areas north of Cape Hatteras have historically had low catches of both dusky and sandbar sharks. The southern boundary was selected based on low numbers of dusky sharks that have been observed caught there in recent years, and because the proportion of juvenile and neonate sandbar sharks is much lower there than in the time/area closure. In summary, the revised time/area closure will reduce the catch of dusky sharks by 79 percent versus 85 percent under the original proposal, and will reduce the catch of sandbar sharks by 51 percent

versus 66 percent under the original proposal. Detailed maps of the revised time/area closure, all observed trips, and research cruises are provided in the final Amendment.

*Comment 22:* Why is Virginia closed? The marginal benefit of extending the closed area into Virginia does not appear as great as it would be off of Cape Canaveral, Florida. There appears to be another area of high sandbar and dusky abundance off central Atlantic Florida; NMFS should have proposed a similar closed area in that region.

*Response:* Based on public comments received, NMFS re-examined the data and concluded that the waters off Virginia did not warrant being closed at this time. The time/area closure boundary has been revised to include only waters south of the HAPC off Cape Hatteras. For the area near Cape Canaveral, Florida, NMFS found that the area accounted for only 8 percent of the observed dusky shark catch from 1994–2002, and less than 14 percent of sandbar sharks, of which a very high proportion were adults. Given the low percentage of catch of prohibited dusky sharks from this area, and the high proportion of adult sandbar sharks, NMFS did not feel it was appropriate to close the area at this time.

*Comment 23:* NMFS must adopt the alternative that would establish a time/area closure for smalltooth sawfish critical habitat. The smalltooth sawfish is the first marine fish to be listed under ESA, and although critical habitat has not yet been designated, NMFS should act immediately.

*Response:* NMFS does not have the basis for implementing a time/area closure for smalltooth sawfish at this time. Without information about smalltooth sawfish critical habitat, NMFS does not have sufficient information to identify an appropriate time/area closure. Once a recovery plan is developed and critical habitat identified, NMFS will reconsider a closure to protect smalltooth sawfish.

*Comment 24:* The depths on the maps depicting the time/area closure are incorrect.

*Response:* NMFS has provided updated maps showing the correct bathymetry in the final Amendment.

*Comment 25:* NMFS needs to compare the number of dusky shark takes in the commercial and recreational fisheries. MRFSS data are not credible.

*Response:* NMFS has provided estimates of the number of dusky sharks caught in the commercial and recreational fisheries in the final Amendment. The estimates show that the number of dusky sharks caught in the commercial fishery was

considerably higher (18,867) than in the recreational fishery (5,570) in 1999, but that the recreational fishery may have caught more dusky sharks in 2000–2001 (8,100 vs. 6,063). MRFSS data are not the only data used in calculating recreational catch estimates. Other data are obtained from the NMFS Headboat Survey (HBOAT) and the Texas Parks and Wildlife Recreational Fishing Survey (TXPWD).

*Comment 26:* The proposed time/area closure splits South Carolina. How will enforcement enforce the regulation?

*Response:* The revised time area closure is located entirely off the coast of North Carolina and enforcement should no longer be an issue off South Carolina. Other time/area closures have been implemented that did not fully encompass a state's waters, and NMFS utilized VMS to ensure the effectiveness and enforcement of the closures. NMFS intends to implement VMS for the current time/area closure as well. VMS will have the added benefit of allowing vessels to transit the closed area.

## 5. Other Management Measures

### A. Deepwater and Other Sharks

*Comment 1:* NMFS received a range of comments regarding the alternatives for the deepwater and other species group. The comments include: Deepwater sharks should be protected. Because there is little practical effect of leaving or removing them from the management unit, deepwater and other sharks should be left in the management unit. Leaving the deepwater and other sharks in the management unit could decrease the time needed to act, if necessary. Deepwater and other sharks should remain in the management unit because if any fishery should develop, it could take years to create an FMP following section 305(a) of the Magnuson-Stevens Act in terms of gear evaluation and notification of entry. We support the preferred alternative. NMFS should continue to collect data on these species until such a time that they can be assessed or until a potential fishery develops. If needed, NMFS should move to put them back in the management unit to protect them.

*Response:* Maintaining data collection only on the deepwater and other sharks is sufficient because there are not significant landings of the species in this group and no known fishermen target these species. If directed fisheries were to start, NMFS would evaluate data available at that time to see if an FMP amendment or other regulatory measures would be warranted.

*Comment 2:* Fishing for deepwater and other sharks should be prohibited

because they are more likely to be overfished than coastal sharks.

*Response:* At this time, there are no known fishermen targeting deepwater and other sharks. Prohibiting these species would be precautionary, but it may not significantly reduce mortality because these species are only caught rarely in non-HMS fisheries. Further, prohibiting landings of these species in HMS fisheries could reduce the availability of important data on them.

*Comment 3:* To the extent that deepwater sharks are a target of fisheries in the Caribbean, the complex should be assessed and managed.

*Response:* NMFS will assess this species group when more biological and fishery information becomes available.

*Comment 4:* Deepwater and other sharks were added to the management unit not only to ban their finning, but also to preclude possession of species that may be vulnerable to overfishing and to help prevent development of directed fisheries or markets for uncommon or seriously depleted species.

*Response:* The species added to the prohibited species group in the HMS FMP were added because they were known to be vulnerable to overfishing, uncommon, or seriously depleted. The deepwater and other group was included in the management unit only to prohibit finning of these species. No other regulations were placed on this group (e.g., no permitting or reporting requirements). Presently, the only protection afforded under the HMS FMP, a ban on finning, is now afforded nationally under the Shark Finning Prohibition Act (February 11, 2002, 67 FR 6194). Given the national protection, maintaining data collection only on these species is sufficient at this time.

#### B. Prohibited Species

*Comment 1:* Fishermen should be fined \$10,000 for every prohibited species they capture.

*Response:* Currently, the possession and landing of prohibited species is illegal. Penalties and fines vary with the severity of the infraction. At this time, NMFS does not believe a \$10,000 fine for capturing a prohibited species would be appropriate under all circumstances.

*Comment 2:* NMFS received a range of comments stating that dusky sharks should be removed from the prohibited species list in order to determine where and how many are caught. Alternatively, some commenters stated that NMFS should not remove dusky sharks because they have suffered a severe population decline and all measures to reduce mortality should be imposed.

*Response:* Dusky shark catch rate data indicate large population declines since the early 1970s. Dusky sharks have a high bycatch mortality, approximately 80 percent, and are usually dead when gear is retrieved. Although commercial shark fishery observer data shows that dusky sharks comprise approximately one percent of total catch in recent years, removing dusky sharks from the prohibited species list could result in increased mortality of this overfished species by allowing the retention of individuals that may otherwise be released alive. NMFS determined that removing dusky sharks from the current prohibited species group would likely have significant ecological impacts.

*Comment 3:* NMFS received several comments regarding the addition of the deepwater and other species to the prohibited species group. The comments include: Because they are slow growing and because new fisheries can spring up and deplete populations before action can be taken, deepwater and other sharks should be added to the prohibited species list. Removing deepwater and other sharks reduces the chances for conserving slow growing deepwater sharks. NMFS continues to assert the lack of a fishery for deepwater sharks and yet has failed to reconcile their previous finding in the National Plan of Action for Reducing Fishing Capacity that deepwater sharks are overcapitalized.

*Response:* NMFS determined that adding the deepwater and other species to the prohibited species group would likely have only minor positive ecological impacts. Prohibiting these species takes a precautionary approach, but may not significantly reduce mortality because these species are only caught rarely in non-HMS fisheries. Further, prohibiting the landing of these species in HMS fisheries may limit the availability of data pertaining to them. If directed fisheries started, NMFS would evaluate data available at that time to see if an FMP amendment or other regulatory measures would be warranted. The draft National Plan of Action for Reducing Fishing Capacity stated that deepwater sharks are overcapitalized. NMFS believes the deepwater and other species were given this designation because the management group was included along with other shark management groups which are overcapitalized. The Highly Migratory Species Management Division has recommended that this finding for the deepwater and other species be amended because there are no known fishermen who target these species.

*Comment 4:* We support adding finetooth sharks to the prohibited

species list. Possession should be prohibited until effective management measures to stop overfishing are implemented.

*Response:* NMFS analyzed an alternative that would add the finetooth sharks to the prohibited species group, but determined that this alternative would likely have limited positive ecological impacts as finetooth sharks are common bycatch in non-HMS fisheries and prohibiting them in HMS fisheries will not prevent their capture. Additionally, finetooth sharks are not overfished and are commonly caught in HMS fisheries. As such, finetooth sharks do not appear to meet the criteria established in the selected alternative. As described in Amendment 1, NMFS will take a long-term approach of identifying where finetooth sharks are caught and work with the appropriate Fishery Management Council to reduce fishing effort, as appropriate.

*Comment 5:* NMFS received several comments regarding the preferred alternative for prohibited species. The comments include: We support the proposed alternative for prohibited species. We support the proposed alternative but recommend removing the criterion of rarity in LCS catch. If a species is commonly caught in the LCS fishery, but is depleted and warrants protection according to the biological criteria, then the species should be prohibited. We support the proposed mechanism but note that the criteria and procedures in the draft Amendment 1 require further investigation and clarification regarding appropriateness before finalization. We support the proposed mechanism but suggest that the criterion for adding and removing species be separated because the action may be contrary.

*Response:* NMFS believes the mechanism for adding and removing species to and from the prohibited species list and the associated criteria are appropriate for addressing the biological needs of individual shark species. In regard to concern over the second criterion, a species may be rarely caught in HMS fisheries but stock assessments show few signs of depletion (e.g. HMS gear types are not efficient at catching the shark species or the species is caught in areas not fished by HMS fishermen). Before any species is added or removed from the list, NMFS would issue a proposed and final rule that fully describes how and if the species meets the criteria. If adjustments to the criteria are found to be needed in the future, NMFS can modify the criteria in a future rulemaking.

*Comment 6:* NMFS should return to the original five prohibited species. All

LCS should be assessed. If they remain on the prohibited species list, NMFS will not have the data they need to assess them. Similarly, we support the proposed mechanism but NMFS should also remove any species that are logically not likely to be overfished (e.g., rarely caught species).

*Response:* The 1997 prohibition on the possession of whale, basking, sand tiger, bigeye sand tiger, and white sharks within Federal waters was a precautionary measure developed to ensure that directed fisheries did not develop for these species. These five species were identified as highly susceptible to over exploitation. In 1999, the HMS FMP prohibited the retention of the remainder of the prohibited species because they were known to be vulnerable to overfishing, uncommon, or seriously depleted. Although the preferred alternative includes a mechanism and lays out criteria for the inclusion and removal of species from the prohibited species group, NMFS does not believe any changes to this group are warranted at this time. Each species will be considered on a case by case basis in future rulemakings. In the 2002 LCS stock assessment, there was sufficient information to assess the LCS complex as a whole, and sandbar and blacktip sharks individually. NMFS will assess individual species as more biological and fishery information become available.

*Comment 7:* If the proposed mechanism is finalized, what type of request would we be required for NMFS to start rulemaking to remove species?

*Response:* NMFS would require a petition for rulemaking to alter the prohibited species list. A petition for rulemaking should contain sufficient information for NMFS to consider the substance of the petition. For a petition regarding changes to the prohibited species list, the petition should, at a minimum: (1) Indicate what species are requested to be added to or removed from the list; (2) identify how the criteria warrant the addition or removal of the species; (3) provide data and other information relevant to those identified criteria; (4) state if additional research may be necessary to develop the requested change; (5) explain the interest of the petitioner or other stakeholders regarding the requested change; and (6) explain the importance of the action requested to promoting established NMFS' priorities and policies.

*Comment 8:* If the proposed mechanism is finalized, will NMFS conduct an annual assessment regarding

which species will be placed on the prohibited species list?

*Response:* NMFS will assess individual species as additional data becomes available and not necessarily on an annual basis.

#### C. EFPs

*Comment 1:* We support the preferred alternative as long as NMFS maintains some accountability on how the sharks are used, particularly the prohibited species. Any demographic information for age, growth, and offspring that evolves from aquarium use should be provided to NMFS annually for use as a comparative database for life history analyses versus wild stocks.

*Response:* NMFS maintains an EFP database which accounts for each highly migratory species requested, authorized, taken/collected, and/or tagged under an approved EFP. As for data reporting, each permitted individual is required to submit interim reports throughout the calendar as well as submit an annual report documenting the amount, composition, and disposition of the catch as well as information pertaining to fishing activities. Additionally, NMFS has finalized a rule that amends HMS reporting requirements under EFPs (68 FR 63738, November 10, 2003). Additional issues regarding EFPs and Display permits may be addressed in a future rulemaking.

*Comment 2:* We support a separate display permitting system, apart from research or EFPs. NMFS should overhaul the EFP system and establish separate classifications of permits for each specific use (e.g., public display, research, and other exempted activities).

*Response:* NMFS agrees and is establishing display permits in this rule. Other purpose classifications of exempted fishing permits may be addressed in future rulemakings.

*Comment 3:* NMFS received several comments regarding the issuance of permits. Comments included: NMFS should not issue any more permits for scientific research. Background checks should be made of all permit holders; anyone with previous violations of any kind should be denied a permit. Requests for EFPs and SRPs need to be fully evaluated, taking into consideration past performance and other background, particularly for species that are already critically overfished.

*Response:* Valuable information is gathered from activities under scientific research permits (SRPs) that would otherwise be prohibited. For example, SRPs have facilitated the collection of life history, migration, and age and growth information from prohibited

shark species. As noted above, NMFS recently amended the reporting regulations for EFPs and SRPs and will be investigating additional improvements in the permitting processes.

*Comment 4:* Fishermen catching sharks for display purposes should be required to have a purchase order from an aquarium in hand before going out. Annual follow-up investigations to the aquarium should be made to ensure that the shark is cared for properly. If someone is caught without a purchase order, the fine should be \$10,000 per shark.

*Response:* NMFS will be investigating these issues further in a future rulemaking.

*Comment 5:* Several changes are needed to the EFP process including incorporating more public comment into the EFP allocation process and letting the public know what the final decision is and what the environmental impacts are of its decision.

*Response:* NMFS will be investigating alternatives to improve the process in a future rulemaking and notes that information on the types of and number of permits issued are presented in the annual Stock Assessment and Fishery Evaluation (SAFE) reports.

*Comment 6:* Efforts should continue with the Atlantic States Marine Fisheries Commission (ASMFC) regarding coordination between state and federal permits. There often appears to be too many permits and too little oversight.

*Response:* NMFS supports continuing dialogues with the ASMFC regarding coordination between state and federal permits and has been working on improving its own database and collection methods, in part, to improve communication between NMFS and state agencies.

*Comment 7:* While criteria for each EFP may vary, there should be uniform standards of performance, reporting, and accountability that are equally applicable to fishermen, aquariums, researchers, and educational institutions. Implementation of measures to ascertain the educational need justifying the harvest of these animals and improving reporting should be investigated.

*Response:* NMFS will be investigating these issues further in a future rulemaking.

#### 6. Essential Fish Habitat Update

*Comment 1:* EPA recommends including a discussion on whether shark EFH is being affected by other fishery practices. For example, if shark EFH is protected by limiting clamming or

trawling in coastal bays, then the fishery may support higher quotas.

*Response:* Because sharks use both estuarine and coastal inshore habitats, their EFH may be negatively impacted by fisheries that target species other than sharks. These fisheries may be either state or Federally managed. In particular, shark pupping and nursery habitats may be subjected to fishing impacts from gears of other fisheries, e.g., shrimp trawling, but the degree of overlap between the various trawl fisheries and shark EFH, the extent to which habitat is altered by these gears, and the resulting impact on EFH are currently not known. Further research would be required to determine habitat-related production rates for sharks (the highest, most refined level of information available with which to identify EFH, and which is currently not available for sharks) and the potential impact of other fisheries on these production rates. Even if clamming or trawling were limited in some way to reduce impacts on shark EFH, the decision to raise quotas would only be made after appropriate stock assessments were conducted to determine whether the status of the stock had improved as a result of the conservation and enhancement actions.

*Comment 2:* NMFS should identify EFH based on the entire geographic range of the species.

*Response:* The EFH final rule recommends distinguishing EFH from all habitats potentially used by a species (50 CFR 600.815(a)(1)(iv)(A)). NMFS considered identifying EFH based on the entire geographic range of the species, but because specific information from scientists, observers, and tagging programs was available, decided to identify EFH more precisely based on observed distributions and knowledge about habitat requirements of individual species. The final action identifies EFH based on an initial analysis of 100 percent of the observed distribution, which may then either be expanded or reduced based on the status of the stock. If new information is not available, the existing EFH identifications would be maintained. The basis for this alternative is to provide flexibility to increase or decrease the extent of EFH based on the status of the stock. Since overfished resources are considered to be at greater risk, the percentage of habitat identified as EFH for overfished species would be greater than that of fully fished or not overfished species. Identifying the entire range could potentially have resulted in inclusion of the entire EEZ for certain species, which would include more than the range of areas

necessary for spawning, feeding, breeding and growth to maturity as defined in the EFH regulations. Areas currently identified as EFH in Amendment 1 are based upon the best available science and represent the most accurate identification of EFH.

*Comment 3:* We support the use of the preferred alternatives to identify EFH as specifically as possible and the use of data to increase or decrease the identifications for each species.

*Response:* The final action provides an objective way of identifying EFH, and allows for the expansion or contraction of EFH based on the status of a particular species or life stage. For example, for overfished species, 90 percent of the range of distribution could hypothetically be identified as EFH, and for a species that is not overfished, 75 percent of the range of distribution might be identified as EFH.

*Comment 4:* Sandbar shark EFH should include areas in the northern Gulf of Mexico.

*Response:* Current sandbar shark EFH for all life stages includes areas in the northeastern Gulf of Mexico from Key West, Florida, as far west as Cape San Blas, Florida, on the Florida Gulf coast at 80° 15' North, including Apalachicola Bay, Florida. NMFS did not have sufficient information to include areas farther west at this time.

*Comment 5:* NMFS should work with Mexico and Cuba to include their waters as EFH. Twenty percent of all dusky shark tags are returned from Mexico after having been tagged in the mid-Atlantic region. Expanding EFH would help present all information possible about EFH throughout the immediate range.

*Response:* Habitats that satisfy the criteria in the Magnuson-Stevens Act and the EFH regulations have been identified and described as EFH; some additional habitats may lie outside the U.S. EEZ, and therefore cannot be identified as EFH under the Magnuson-Stevens Act. Instead, these areas may be highlighted as particularly important habitats and actions that may adversely affect the habitat may be addressed through international agreements as recommended in the EFH regulations (50 CFR 600.805(b)(2)). The U.S. has engaged in discussions with Mexico regarding fisheries issues in the past, and met again October 22–24, 2003, for U.S. Mexico Bilateral Consultations in Mazatlan, Mexico. Currently the U.S. does not have diplomatic relations with Cuba, and working cooperatively to determine shark habitat in Cuban waters would be difficult.

*Comment 6:* The Amendment discusses changes to EFH based on

human impacts but does not discuss natural impacts such as red tide or rising temperatures.

*Response:* Both red tide and rising temperatures may influence EFH. Red tides may have a short term impact by altering distribution of organisms, and temperature rise may have a long term influence by changing the distribution and abundance of predators and prey, benthic and water column habitat characteristics, and a host of other related issues. Red tides and rising temperatures have been linked to human activities, and as such, the final Amendment includes conservation measures that could reduce the runoff of coastal pollution which may influence or exacerbate red tides, and discusses many other influencing factors that are land-based and may have an impact on coastal waters and EFH.

#### 7. The Stock Assessments and the Status of the Sharks

*Comment 1:* NMFS received a range of comments regarding the current abundance of sharks. One commenter noted that a research scientist told him that there are plenty of sharks and that the scientist has seen more in his research this year than in other years. Another commenter noted that he no longer sees as many large coastal sharks as he used to and that shark harvesting should be stopped.

*Response:* Because of a number of factors including, but not limited to, environmental changes, the gear used, the random sampling scheme used, and past experience of the fisherman, the number of sharks seen by one person or in one year of a time series compared to other years or other people can vary. The models used in the 2002 large and small coastal shark stock assessments take this variation into account when examining the data provided by fishermen and scientists and are considered to be the best available science and an appropriate basis for management action.

*Comment 2:* How could blacktip sharks be overfished in 1998 and now be rebuilt?

*Response:* As a result of a settlement agreement with commercial fishermen, NMFS had the 1998 LCS stock assessment peer reviewed. Those reviews found that the scientific conclusions and recommendations in the 1998 stock assessment were not based on scientifically reasonable uses of appropriate stock assessment techniques. As a result of these peer reviews, NMFS went back to the 1998 stock assessment and conducted a number of sensitivity analyses on the data and the models used at that time.

These analyses found that the data and models used for blacktip sharks were particularly sensitive to a number of factors and that changing some of the factors could lead to results that indicated the stock was either rebuilt or was well below sustainable levels. The sensitivity of the results (to computational issues) was largely attributed to the CPUE series within the analyses, which showed contradictory trends. As a result of these sensitivity analyses, before the actual 2002 stock assessment was conducted, scientists and other stakeholders examined each time series and model available and determined which ones were the most appropriate for use. Given these decisions on data inputs and modeling approaches, the condition of blacktip sharks was determined to be rebuilt. The peer review of the 2002 LCS stock assessment found that the models and data used were appropriate.

*Comment 3:* Given the short period of shark management and the long time required for sandbars to attain maturity, the assertion that sandbar sharks are restored is something of a scientific miracle. Sandbar sharks used to be so common in the mid-Atlantic that they could be counted upon to save almost every summer shark trip. After a few years of intense commercial shark fishing, that species was practically wiped out. We still do not see them.

*Response:* The latest LCS stock assessment constitutes the best scientific information available. It was conducted by some of the most respected shark and stock assessment scientists in the United States and, as is attested by the results of the peer review, used state-of-the-art models. Additionally, the data and models used in the stock assessment were examined and debated by scientists, environmentalists, and fishermen in a stock evaluation workshop before the stock assessment itself. The assessment found that sandbar sharks are no longer overfished but are experiencing overfishing. It is important to note that a change in status from overfished to rebuilt does not mean that the population is restored to levels of an unexploited or lightly exploited population. In general, a fish population that is capable of producing MSY on a continuous level (*i.e.*, a population that is not overfished) is roughly half that of an unexploited population. Thus, NMFS would not expect sandbar shark catch rates to return to the catch rates that occurred at the start-up phases of either the recreational or commercial fisheries.

*Comment 4:* How can a species have overfishing occurring but not be overfished?

*Response:* Overfishing relates to the rate of fishing mortality and indicates that the standing stock is being reduced because removals exceed the capacity of the stock to replace itself. Fishing pressure or fishing mortality needs to be reduced on a species that is experiencing overfishing or the species will become overfished. A species is overfished if the biomass or the number of fish in the population is too low to produce the desired level of harvest on a continuing basis. In the case of an overfished species, fishing mortality must be reduced in order to keep more individuals in the population and contributing to reproduction. An overfished population cannot rebuild unless overfishing is stopped.

*Comment 5:* NMFS received several comments regarding the accuracy of species identification and its impact on data quality and the accuracy of stock assessments. Comments included: NMFS needs to improve species identification and reporting by shark dealers. The data you are using is wrong because fishermen have normally listed everything as a "sandbar shark." NMFS should work within the Atlantic Coastal Cooperative Statistics Program (ACCSP) to better standardize fishery-dependent survey data collection and address the tendency of dealers to simply categorize shark landings as "sharks."

*Response:* Since 1993, species-specific reporting has been required. However, some fishermen and dealers still report sharks as "shark" or as "large coastal." Both the small and large coastal shark stock assessments use a variety of data including fishery-dependent (*e.g.*, self-reported data such as logbooks) and fishery-independent data (*e.g.*, research cruises with a set sampling scheme). While some fishermen or dealers may report the incorrect species on logbooks, other fishermen and dealers do report the correct species, as is required by the regulations, and observers or scientists trained in species-identification report the correct species level data. Both stock assessments conducted numerous sensitivity analyses to examine what happens to the results of the models if only relative abundance data reported by fishermen or only data reported by scientists are used. The overall results of the stock assessments consider these sensitivity analyses and constitute the best scientific information available at this time. Recognizing that the accuracy of stock assessments and management can be improved with correct species-identification, NMFS will be releasing a species-identification guide shortly and will be examining, in a future rulemaking, methods of requiring

mandatory workshops for both commercial and recreational fishermen in order to improve, among other things, species-identification. NMFS continues to work within the ACCSP and other relevant forums to improve the reporting process of shark data.

*Comment 6:* How independent were the peer reviews?

*Response:* For the 1998 and 2002 LCS stock assessments, Natural Resources Consultants, Inc. (NRC) hired several non-NMFS scientists to conduct the peer review. These non-NMFS scientists provided information to show they had no conflict of interest. NMFS provided NRC with all the supporting documentation the scientists required such as copies of the stock assessment and the related documents. However, pursuant to a court-approved settlement agreement, NRC did not disclose the identities of the peer reviewers to fisheries management staff at NMFS until after the reviews were complete.

*Comment 7:* All shark fishing should be stopped. The PEW Report and other reports by independent, unbiased scientists indicate that overfishing is occurring. NMFS is not accurate when it says "sandbar sharks are no longer overfished."

*Response:* As explained above, the current LCS stock assessment underwent an independent peer review and is the best available science on the status of the stocks.

*Comment 8:* NMFS received a range of comments regarding the menhaden fishery and shark bycatch. These comments included: The menhaden fishery catches a lot of sharks. Does NMFS incorporate bycatch information from the menhaden fishery in the stock assessment? NMFS should monitor and control the bycatch in the menhaden fishery.

*Response:* The Gulf of Mexico menhaden purse seine fishery does have some bycatch of sharks. It is estimated that approximately 75 percent of the sharks encountered in the fishery die, and 97 percent of the sharks encountered are LCS while 3 percent are SCS. The 2002 LCS stock assessment included these discard estimates for LCS, blacktip, and sandbar in the Gulf of Mexico menhaden purse seine fishery from 1981 to 2001. Additionally, different sensitivity analyses were conducted to determine how much the results would change if data extended back to 1964. Results from those sensitivity analyses indicated that extending the series of menhaden discard estimates back in time had almost no effect. NMFS will continue to work with the Gulf States Marine Fisheries Commission and the Gulf of

Mexico Fishery Management Council to monitor the situation and, as needed, examine methods of reducing bycatch of sharks in this fishery.

*Comment 9:* The two species that have been assessed outside the LCS complex have been shown to be not overfished; NMFS needs to assess the other 20 LCS species to find out what their status is. All LCS, except sandbar and blacktip sharks, are considered overfished. Some of these species are rare event animals in the ecosystem; they have never, nor will ever be, overfished because they cannot be targeted in U.S. waters. These species should not be considered overfished. Despite 10 years of management, NMFS has failed to conduct species-specific assessments for all LCS. Similarly, some of the prohibited LCS, such as bigeye sand tiger and narrowtooth sharks, are listed as overfished but should not be. These animals are rarely caught or found in U.S. waters.

*Response:* NMFS continues to collect species-specific data in support of species-specific stock assessments. To date, NMFS has conducted individual stock assessments for sandbar, blacktip, Atlantic sharpnose, finetooth, blacknose, and bonnethead sharks. As additional biological and fishery-related data become available, NMFS will conduct other species-specific stock assessments. As noted in the 2002 LCS stock assessment, NMFS plans to conduct a dusky shark stock assessment in the near future. Until that time, NMFS must use the best available data to conduct stock assessments. For many species of sharks, this means conducting group stock assessments of the entire complex. These results indicate that some species in the LCS complex are in apparent decline while other species are not. Until stock assessments can be conducted on individual shark species, NMFS is implementing a mechanism that uses a number of criteria to determine if the species should be on the prohibited species list. If a species, such as narrowtooth sharks, is rarely caught but does not meet the other criteria, such as sufficient biological data to indicate a decline, then the species can be removed. However, if the species is rarely caught because its stock is depleted, the species would be added to, or maintained on, the prohibited species list.

*Comment 10:* NMFS' dusky data is incorrect and is not a true indicator of what is being caught. Juvenile dusky sharks are not caught off the east coast of Florida. Only giant dusky sharks were reported in logbooks in the past.

*Response:* The data collected on dusky sharks is from a variety of sources

including fishermen, dealers, observers, and scientists. While there may be some problems with species identification on the part of those individuals not trained, observers and scientists who have been trained to identify sharks do provide species level data. These data indicate that juvenile dusky sharks (dusky sharks do not mature until they are approximately 10 ft (3 m) FL) are caught off the east coast of Florida.

*Comment 11:* NMFS received several comments regarding the assessment results for finetooth sharks. Comments include: The data on finetooth sharks is flawed; I only land a few and there is only a small area where they are caught. Assessments for finetooth sharks can be improved with better landings and bycatch information. NMFS states that overfishing is occurring for finetooth sharks because of excessive bycatch, yet according to the SCS stock assessment, no bycatch numbers were used in the model; NMFS should improve the data on finetooth sharks.

*Response:* Results for finetooth sharks are uncertain, possibly due to limited catch and CPUE series, lack of bycatch estimates, and no catches reported in some years. NMFS is also examining which fisheries are actually landing the majority of the finetooth sharks. The majority of finetooth shark landings come from gillnets in the South Atlantic fishery; however, observer data indicate that the gillnet vessels that are known to be targeting small coastal sharks, including finetooth sharks, do not land as many finetooth sharks as are reported. Given the uncertainty of the results of the models and the need to collect information on these non-HMS fisheries that are landing finetooth sharks, NMFS intends to prevent overfishing of finetooth sharks by improving species-identification, particularly by recreational fishermen, and working with the Fishery Management Councils to identify and improve monitoring of fisheries that land finetooth sharks.

*Comment 12:* NMFS received several comments regarding future assessments. Comments included: NMFS should use an assessment protocol similar to the South Atlantic Fishery Management Council's Southeast Data and Assessment Review (SEDAR) process for future stock assessments. Species level assessments for several of the primary LCS species need to be developed as soon as possible. NMFS needs to schedule LCS and SCS stock assessments for 2004 to prepare plans for future shark issues of importance. An assessment for the pelagic shark group needs to be completed as soon as possible.

*Response:* The process for conducting shark stock assessments continues to evolve and improve over time. As new data and techniques become available, NMFS makes every effort to examine the possibility of using those data and techniques for assessing the status of sharks. Additionally, NMFS considers and will continue to consider the process of other fisheries stock assessments and the needs of the fishing communities to improve the overall stock assessment process. Under the HMS FMP, NMFS committed to hold stock assessments for each complex every two to three years. At this time, NMFS has not yet decided when the next SCS or LCS stock assessments will be conducted. However, NMFS will make every effort to ensure interested parties can attend the shark evaluation workshop. As for pelagic sharks, because of their migratory nature, NMFS is working with ICCAT to collect data and conduct an international stock assessment of several species of pelagic sharks. That stock assessment should occur in 2004.

*Comment 13:* NMFS should make efforts to document fully landings in Mexican waters and to work with that country in coordinating shark management.

*Response:* NMFS agrees and is working through international means and with Mexican scientists to improve communication and facilitate the exchange of data.

#### 8. Economic Impacts

*Comment 1:* NMFS received several comments regarding the range of economic impacts that should be analyzed. Comments included: NMFS should focus on the probability of extinction of sharks instead of the economic impacts on commercial fishermen. NMFS should not focus on the economic impacts on commercial fishermen but on U.S. citizens as a whole.

*Response:* In this rulemaking, NMFS considered the status and biology of the stock, the ecological impacts of management measures, and social and economic impacts, as required under the National Environmental Policy Act, 1969 (42 U.S.C. 4321 *et seq.*), Regulatory Flexibility Act, 1980 (5 U.S.C. 601 *et seq.*), Small Business Regulatory Enforcement Fairness Act, 1996 (5 U.S.C. 801 *et seq.*), Regulatory Planning and Review, 1993 (Executive Order 12866), and Proper Consideration of Small Entities in Agency Rulemaking, 2002 (Executive Order 13272). NMFS conducted economic and ecological analyses in an EIS, Initial Regulatory Flexibility Analysis (IRFA), Final

Regulatory Flexibility Analysis (FRFA), and a Regulatory Impact Review (RIR), which document economic impacts on the affected fishery, small entities, and the nation as a whole.

*Comment 2:* The revised quotas will put fishermen out of business. The current quotas are good and the overall fishery is improving.

*Response:* According to the 2002 LCS stock assessment, the LCS complex is overfished and overfishing is occurring (Cortes, 2002). As such, the 2002 stock assessment recommends that adjustments to quotas be made in the form of percent reductions in catch. Economic analyses indicate that the LCS quota was worth \$2,895,521 in 2001 under the baseline for comparison (*i.e.*, 1,285 mt dw). Implementation of the preferred alternatives will result in a 21-percent reduction in total gross revenues for both the fishery as a whole as well as small entities. If NMFS did not act, the quotas from the 1999 HMS FMP, which are 20-percent lower than the LCS quotas finalized in this rule, would go automatically into place and result in a 24-percent reduction in total gross revenues for both the fishery as a whole and small entities.

*Comment 3:* The combination of the classification for LCS and quota basis would stabilize some of the economic impacts that have unfolded upon the directed shark participants since 1997 due to regulations and inadequate science.

*Response:* While the combination of the final actions would increase total gross revenues by 33 percent to both the fishery as a whole as well as small entities, this economic benefit may be short-lived if the fishery continues to decline as a result of substantial increases of regulatory discards that are anticipated with multiple closures in a mixed LCS fishery. Fishermen would likely need to increase effort in order to make up for lost catches during partial closures, which may result in increased protected resource interactions and mortality on non-targeted species. Moreover, longer sorting times per set are likely to increase opportunity costs to fishery participants. Additionally, lengthening of trips may occur in order for fishermen to compensate for lost catches during a partial closure. Increased time at sea reduces the profits fishermen gain due to increased costs for fuel, bait and ice, and could raise safety at sea concerns if fishermen fish longer or harder to counteract for lost revenues.

*Comment 4:* The regional quotas and estimates of catches by region are flawed and will put North Atlantic fishermen out of business. This regional

quota and a trimester approach will give the North Atlantic 1.3 percent of the quota or 14.4 mt dw for each season. This is not sufficient to maintain a crew.

*Response:* NMFS combined information from two separate databases containing regional landings information as reported by dealers and states to NMFS. The landings information represent the best available information pertaining to regional data. Given that regional quotas seek to maintain historical landings, as opposed to reducing landings, NMFS does not expect that regional quotas would change previous fishing practices or result in any significant economic impact. To the extent that the LCS quota itself is being reduced, fishermen in all regions will likely have reduced landings. However, NMFS believes that having more open seasons (*i.e.*, three as opposed to two) and spreading the open seasons out more evenly, will result in greater economic stability for fishery participants, including crew members. Additionally, over time, regional quotas may allow NMFS the flexibility to manage quotas to each region's maximum economic advantage.

*Comment 5:* NMFS received a range of comments regarding the economic impact of a trimester approach. Comments include: We cannot support the trimester season approach because it would hurt the market and because it could have economic costs for fishermen who would need to switch their gear types three times a year instead of two times. Grocers need at least a month to develop their advertising and know their potential supply and price; a trimester approach would not give enough time for grocers to advertise. I like the trimester approach because it would allow for more advertising and therefore a higher price. I do not need to switch my gear because I use the same gear for grouper, sharks, and tuna. NMFS, as part of the Department of Commerce, should be more sensitive to seafood markets and should know that changing the seasons from biannual to trimesters will cause extreme harm to the established market routine for sharks.

*Response:* NMFS recognizes that trimesters may take time for fishermen and associated communities (*e.g.*, dealers, processors, retail agents) to adapt to, given that new markets will need to be established at different times of the year. Fishery participants will need time (*i.e.*, between two weeks and a month) to work with grocers to advertise shark products and under trimester seasons the time available for such advertisements may be further limited, as compared with the no action

alternative. Additionally, since fishermen may be able to land sharks at the same time as other fish, there could be fluctuations in markets for other fisheries. Spreading open seasons out more evenly over the calendar year could, in the long-term, result in greater economic stability for fishermen and associated communities because the amount of time between open and closed seasons would be reduced and sharks would be available in the market more frequently throughout the year. In order to reduce the economic impacts associated with trimesters, NMFS will implement a delay in effectiveness to give fishery participants an opportunity to work with dealers and grocers to enhance markets and advertising solutions in advance of season openings. NMFS also recognizes that variation in open seasons could result in short-term social and economic burdens, given that fishermen will need to adjust fishing practices, including but not limited to, re-rigging gear more often to fish for shark, as opposed to other species, during what would otherwise be a closed season. Social and economic costs associated with switching gear more often may be minimized, if shark fishery participants use the same gear in other fisheries (*e.g.* similar gear is used to fish for shark, grouper, and tuna). Trimester seasons are preferred to quarterly seasons because trimesters will minimize the costs of switching gear (*i.e.*, only three times as opposed to four per year) and give a higher percentage of the quota to each open season than would occur under a quarterly season approach.

*Comment 6:* I want a buyout if you are going to set the regional quotas and trimester seasons. My vessel is worth more than \$200,000 to me.

*Response:* NMFS has the authority to reduce capacity under the Magnuson-Stevens Act (Section 312(b)-(e)) and may investigate options to reduce capacity during a future rulemaking.

*Comment 7:* If NMFS bans drift gillnet, all shark gillnet fishermen, including those already using strikenet gear, will go out of business because you can only use strikenet from January through April when the LCS are schooling and the season is open. You cannot use strikenet to target SCS which is what shark gillnet fishermen rely on when the LCS season is closed. You also cannot use strikenet gear in the summer because the sharks in this area are not schooling. Shark gillnet fishermen cannot fish for Mackerel due to the Florida net ban; therefore, most of their money comes from shark fishing. Strikenet fishing requires two large vessels to retrieve the gear, two small

vessels to deploy the gear, and an airplane. Buying new gear itself costs at least \$70 K. That is a large amount of capital investment and because it captures a large amount of blacktip sharks at a time, the gear can only support two vessels.

*Response:* As explained above, NMFS no longer prefers the alternative that would allow only strikenet method in the shark gillnet fishery. Based on public comment, NMFS re-examined available data. These data indicate that allowing the use of strikenets only would not accomplish the objective of allowing the gillnet fishery to continue while minimizing interactions with protected resources as well as reducing bycatch of non-target species because strikenet fishermen do not target SCS. Therefore, the final regulations will permit the use of drift gillnets with possible gear modifications or other measures designed to reduce interactions and mortality of bycatch being implemented through a future rulemaking, based upon further study.

*Comment 8:* The complete prohibition of a gear in a fishery is not unusual in fisheries management, especially in regards to entanglement gear. Gillnets have been disallowed in other fisheries that are considerably larger and with more socioeconomic impact than the six to eight gillnet vessels in this fishery. Beside protected species, gillnets kill gamefish species such as tarpon and large red drum that support recreational and charter fisheries that contribute over \$500 million to Georgia's economy. The kill of these premier gamefish in this gear presents a clear threat to Georgia's growing recreational and charter fishing fleets, with distinct economic implications to the State.

*Response:* While it may be true that prohibitions of gear types exist in other fisheries and that those actions may have resulted in economic impact to the concerned fishery as well as small entities, it is likely that the decision-making associated with why those prohibitions were originally considered and ultimately approved differs. In this instance, NMFS proposed the strikenet method only to minimize interactions with protected resources and reduce bycatch of non-target species to the extent practicable while allowing the commercial shark gillnet fishery to continue. Through public comment it has been brought to the attention of NMFS that allowing the use of strikenets only would not accomplish this objective. Therefore, the final regulations will permit the use of drift gillnets with possible gear modifications or other measures being implemented through a future rulemaking.

*Comment 9:* I use small mesh monofilament stab nets to fish for whiting, bluefish, Spanish mackerel, and croakers. I normally land more than the incidental limit of sharks. If you allow only strikenets, I will go out of business.

*Response:* NMFS originally proposed allowing the strikenet method only in the shark gillnet fishery in order to reduce bycatch of protected species. This alternative would have allowed incidental shark landings from vessels participating in other gillnet fisheries, such as those mentioned in the comment above. However, as explained above, NMFS is not implementing this alternative at this time.

*Comment 10:* The time/area closure off of North Carolina will put many fishermen out of business.

*Response:* NMFS acknowledges that some fishermen may go out of business as a result of the time/area closure. Original economic analyses in the draft Amendment indicated that the time/area closure offshore of South Carolina, North Carolina, and Virginia could have a direct economic impact on a total of 34 vessels (out of 251 total directed permits issued in 2002 ~ 14 percent) with directed shark permits. In response to comments, NMFS revised the time/area closure. Economic analyses, based on revisions to the time/area closure, indicate that 23 vessels (out of 256 total directed permits issued in 2003 ~ 9 percent) with directed shark permits may experience direct economic impacts. Additionally, original analyses pointed toward a total of 13 vessels with home ports located in South Carolina, North Carolina, and Virginia as having reported shark landings during 2001. These vessels reported gross revenues totaling \$351,600 during that year. Revised economic analyses indicate that only 8 vessels with home ports located in North Carolina reported shark landings during 2001. This revised analysis indicates that the time/area closure off of North Carolina will result in a 15-percent reduction in total gross revenues for the fishery as a whole and in a three-percent reduction of revenues for the small entities directly affected by the proposed closure. As such, the revised time/area closure mitigates the economic impacts by \$17,956 in total gross revenues for the small entities directly affected by the closure as compared with the original preferred alternative as outlined in the draft Amendment.

*Comment 11:* NMFS received several comments regarding VMS. Comments included statements that the proposed VMS is not as expensive as the program run out of the Northeast; therefore, we

encourage your program. VMS is expensive and a violation of privacy. A VMS requirement would put bottom longline fishermen out of business.

*Response:* Economic analyses of the impacts associated with the VMS requirements indicate that only five percent of the fleet would be affected and that this will result in a eight-percent reduction in total gross revenues for the fishery as a whole and a 26-percent reduction in total gross revenues for the 12 vessels directly affected by this proposed requirement during the first year of implementation. For every year thereafter, economic analyses indicate that annual costs will result in a seven-percent reduction in total gross revenues for the fishery as a whole and a seven-percent reduction in total gross revenues for the 12 vessels directly affected by this proposed requirement.

*Comment 12:* Will the agency pay for VMS for this fishery?

*Response:* Implementation of the VMS requirement in this final rule will result in five gillnet vessel owners and seven bottom long-line vessel owners having to pay for VMS units and all associated costs. Specifically, the costs associated with implementing a VMS program in the Atlantic shark gillnet fishery include an initial average cost per vessel of approximately \$2,275 (not including postage costs for returning certification statement), an average annual maintenance cost of approximately \$500/year, and approximately \$197.28/year for communications during the right whale calving season. Costs associated with implementing a VMS program in the directed shark bottom longline fishery include an initial average cost per vessel of approximately \$2,275 (not including postage costs for returning certification statement), an average annual maintenance cost of approximately \$500/year, and approximately \$305.28/year for communications during the 212 day shark bottom longline time/area closure.

*Comment 13:* The fuel that it takes to move one nautical mile after an interaction with a protected species is not significant and should not have a large economic impact.

*Response:* NMFS believes that most fishing vessels will move at least one nautical mile during the course of normal operations. As such, fuel costs associated with a requirement to move one nautical mile after an interaction with a protected species are insignificant and would have minimal, if any, economic impacts.

*Comment 14:* The retrieval of fishing gear (*i.e.*, hooks, leaders, and crimps) saves the fisherman money replacing

the lost gear and time and effort. Dehooking and disentanglement techniques would speed up, in most cases, their fishing operation and reduce CPUE. Additionally, line cutters and dehooking devices are relatively inexpensive and are a one-time cost that could be paid back with the savings from retrieved hooks from one or two trips.

*Response:* NMFS agrees that costs associated with purchasing release equipment are minimal and that retrieval of fishing gear will reduce some of the costs associated with replacement of lost gear.

*Comment 15:* If HMS fishermen properly use release equipment, they would have the ability to call their target species "sea turtle friendly" at the marketplace. This would allow for a market edge for US-caught fish over imports.

*Response:* NMFS agrees that economic costs associated with purchase of release equipment could be minimized if consumers perceive the shark fishery as conservation minded and correspondingly begin to support the sale of shark products in the marketplace. Examples of eco-labeling programs, such as those supported by the Marine Stewardship Council, illustrate this effect.

*Comment 16:* Private sector gear technologists, NGOs, educational grants, and other interested parties may be willing to help pay for educational workshops. Trainers could donate their time. Fishermen and anglers could absorb the costs of travel and time and contribute assistance in funding if necessary.

*Response:* NMFS will pursue the requirement of mandatory workshops during a future rulemaking and intends to investigate these funding options at that time.

*Comment 17:* NMFS is proposing a number of measures that may change the allocation methodology of potential future quotas and cause expensive and unnecessary negative impacts to the current commercial shark fleet. NMFS should be patient with the shark fishing community and minimize the potential for socioeconomic impacts until further efforts to stabilize the fleet through better analysis, sufficient quotas, buyback program, *etc.*, become more progressed. NMFS should not be in a hurry to put fishermen out of business.

*Response:* The 2002 stock assessment for LCS documents that the complex is overfished and that overfishing is occurring. Under the Magnuson-Stevens Act, NMFS must take action to prevent overfishing and rebuild overfished stocks. However, to the extent

practicable, NMFS is delaying implementation of certain measures such as VMS and the time/area closure to give fishermen time to adjust and will implement relief restrictions such as the quota and commercial minimum size immediately. This delay in implementation is aimed at minimizing some of the economic impacts associated with VMS and the time/area closure.

*Comment 18:* NMFS should consider some type of individual quota evolved from the current directed shark limited access permit holders. These quotas could reduce derby effects and seasonal market gluts.

*Response:* Individual transferable quotas (ITQs) may be a viable alternative and NMFS may investigate this and other alternatives in a future rulemaking.

*Comment 19:* NMFS should consider restricting imports of shark products to help boost the domestic market.

*Response:* The Magnuson-Stevens Act authorizes use of import prohibitions under certain circumstances, most notably where another country is not complying with an applicable international fishery agreement. To date, no such agreement has been reached with regard to Atlantic sharks. As such, NMFS cannot impose importation restrictions on other countries. However, NMFS is supportive of continuing dialogues with international fishery management organizations such as ICCAT, FAO, and others as appropriate for developing international fishery agreements aimed at shark management.

*Comment 20:* NMFS shark management has been both an ecological disaster and a knife in the backs of recreational shark fishermen. While NMFS spends millions of taxpayer's money to buy out commercial fishermen who destroyed the stocks with overfishing, there is no offer to compensate those in the recreational fishing business who have been bankrupted by NMFS policies.

*Response:* There are a variety of Federal programs, which provide economic relief to fishermen and other businesses affected by fishery management measures. A summary of these programs can be found in Chapter 8 of the FEIS. As such, NMFS believes that equal opportunities are given to all members of the affected environment, where fishing regulations and economic relief are concerned.

*Comment 21:* Amendment 1 claims that shark fishermen are paid \$0.91 per pound for LCS. This is quite an achievement given that dealers are

selling meat for \$0.70 to \$1.20 per pound to seafood chains.

*Response:* The average price used in this rulemaking comes from the data submitted to NMFS on weigh-out slips submitted by dealers. The average ex-vessel price changes based on which gear was used and which area the fish was sold in. For example, LCS caught on pelagic longline and sold in the states bordering the Gulf of Mexico had an average ex-vessel price of \$0.45 per pound while pelagic longline-caught LCS sold in the South Atlantic had an average ex-vessel price of \$1.69 per pound. The average of the average prices by gear and region equals the \$0.91 used in this rulemaking to estimate the gross revenues of Federally-permitted fishermen. NMFS does not collect information regarding wholesale prices; however, some information from the Fulton Fish Market indicates that the average wholesale price also varies depending on the species, the state sold, and the month sold.

In 2003, NMFS began collecting mandatory cost-earnings trip level information from 20 percent of all Federal shark permit holders. The information collected via this mandatory system should allow NMFS to more accurately estimate gross and net revenues of shark fishermen. Additionally, the information collected in that system will allow NMFS to verify the weigh-out data submitted by dealers.

*Comment 22:* In the 2003 SAFE Report produced by the Highly Migratory Species Management Division, NMFS reported that over 3 million pounds dw of LCS had been landed in 2001. In the economic analyses of Amendment 1, NMFS reports that only 1.5 million pounds dw of LCS had been landed in 2001. These numbers should match.

*Response:* The numbers in the SAFE Report include all sharks that were reported landed from all available data including landings by state fishermen. The SAFE Report numbers are the actual tally of sharks landed and are the numbers used in the stock assessment and throughout most of Amendment 1. The numbers in the economic analyses in Amendment 1 are limited in scope and include only those sharks reported landed in 2001 by fishermen who hold a current Federal shark permit. Thus, the numbers in the SAFE Report and the economic analyses of Amendment 1 should not match.

Some fishermen who held a permit in 2001 and reported landings, may not currently hold a permit, may have let their permit lapse during the time NMFS queried the permit database, or

may have transferred their permit onto another vessel. Thus, their landings would not be included in the economic analyses of Amendment 1. Similarly, some fishermen fish for sharks only in state waters and do not hold a Federal permit. Those landings were not included in the economic analyses for Amendment 1. In terms of the economic analyses for Amendment 1, this approach is appropriate because any management action will have a direct impact on those fishermen who currently have Federal permits.

#### 9. General

*Comment 1:* The EPA stated that in some cases it is unclear how the No Action alternative is assessed for impacts and recommended including further information. As an example, EPA refers back to the statement on page 4–10 of the draft environmental impact statement that semi-annual seasons would not have any ecological impacts because the fishery had been managed that way since 1993.

*Response:* In the final environmental impact statement, NMFS has clarified the No Action alternatives, particularly the explanation of any impacts of continuing a particular course of action. In the specific example cited by EPA, NMFS does not agree that semi-annual seasons have caused adverse ecological impacts. Semi-annual seasons can have some ecological impacts if they extend into pupping seasons; however, it is unlikely that providing fishermen two fishing seasons caused the decline of the stock. Rather, it is likely that the overall level of fishing mortality, combined with environmental factors, led to the decline of the stock.

*Comment 2:* The EPA states that it would be useful for a baseline comparison if NMFS could explain why a No Fishing alternative would be reasonable or unreasonable.

*Response:* In the case of Atlantic sharks, NMFS does not believe that a No Fishing alternative is reasonable nor would such an alternative be consistent with the Magnuson-Stevens Act. The latest stock assessments indicate that the SCS complex is not overfished and overfishing is not occurring and that while the LCS complex is overfished, the two primary LCS species are not. Given the status of the SCS complex, there is no reason why NMFS would consider a No Fishing alternative. For the LCS complex, alternatives are available that would allow fishing to continue while still allowing the stock to rebuild. As described in the Amendment, NMFS feels a No Fishing alternative is not consistent with the Magnuson-Stevens Act in that it would

not minimize social and economic impacts, to the extent practicable, nor would it be based on the best available science.

*Comment 3:* EPA notes that summary tables that provide clear and relevant background information and recommends including a glossary of terms, a list of acronyms, and other visual diagrams such as pie charts.

*Response:* In the final environmental impact statement, NMFS has included a list of acronyms and several more diagrams and figures. Many of the tables presented in Amendment 1 come straight from the stock assessments or other supporting documents, and NMFS feels it would be best to rely on the information as it was first presented rather than to convert it to an unfamiliar format. Throughout the FEIS, NMFS provided definitions for fishing-related terms, such as MSY, in the text.

*Comment 4:* EPA comments that NMFS should clarify the effects of other fisheries on the stocks of sharks and clearly connect relevant information throughout the document. As an example, EPA refers to a quote regarding the amount of commercial landings of SCS compared to bycatch (page 3–13 of the draft Amendment) and compares this quote to other quotes regarding the amount of LCS bycatch in the menhaden fishery (page 3–75 of the draft Amendment). EPA also mentioned the need to clarify and expand upon the discussion of collection of sharks for public display.

*Response:* NMFS has tried to clarify and connect relevant information throughout the final Amendment in order to provide a context for any related analyses. Regarding the specific example given by EPA, NMFS notes that the SCS and LCS fisheries are two different fisheries with different species of sharks and that bycatch of SCS is not necessarily related to bycatch of LCS. For example, while the menhaden fishery catches both SCS and LCS, 97 percent of the catch of sharks are LCS and only 3 percent are SCS. Regarding the example of public display, NMFS has added details regarding the number of sharks taken for public display each year and the impact on the stocks.

*Comment 5:* EPA comments that NMFS should clarify the impact of other fishery practices on sharks. If sharks are being significantly diminished by other fishery practices, the FEIS should contain a short discussion of what other FMPs are doing to minimize impacts on sharks and provide a webpage link to that other FMP.

*Response:* NMFS agrees that knowledge regarding the relationship between shark catches in other fisheries

and their impact on shark stocks needs to be examined and improved. For several years, NMFS has been working on including this type of information in the stock assessments. For example, the 1998 LCS stock assessment included Mexican catches for the first time and the 2002 LCS stock assessment expanded upon the Mexican catches and included information regarding shark bycatch in the menhaden fishery. However, while the total number of sharks taken as bycatch in other fisheries might be large, most fishery managers consider the bycatch in individual fisheries under their purview to be a low priority, particularly compared to the target catch and bycatch of other managed or protected species. Thus, many FMPs do not analyze in detail the impacts of the specific target fisheries on sharks. Additionally, as described above, NMFS recently released National Bycatch Implementation Plans for different fisheries. Several of the implementation plans for other fisheries outline recommendations for improving monitoring of bycatch in these fisheries. As information on shark bycatch in these fisheries becomes available, it will be incorporated in future stock assessments.

*Comment 6:* Draft Amendment 1 was too large. The document needs to be condensed to be easily understood.

*Response:* Legal requirements dictate the content of fishery management plans and plan amendments, the analyses that are required, and the need to respond to public comments. However, to enhance the public's ability to understand the final Amendment, NMFS has provided an executive summary in the final Amendment, an updated one-page chart that outlines the regulations and highlights major changes from the draft Amendment, and summary and explanatory tables and figures throughout the document. As required by the Regulatory Flexibility Act, NMFS will also be providing a small entity compliance guide for the final rule. Additionally, NMFS will be updating and revising the current recreational and commercial brochures based on the changes to the regulations.

*Comment 7:* NMFS should accept comments via e-mail.

*Response:* NMFS is working towards a system that would allow the public to submit comments electronically over the web. In 2001, NMFS issued the first "e-comment" pilot program for a proposed rule regarding issues in HMS charter/headboat fisheries. Based on the results from this pilot, NMFS made a number of improvements and continues to test the program on other rules in

order to ensure that the final e-comment program is user-friendly and provides an adequate method of providing comments. A link to regulations that are accepting comments via the web can be found off the main NMFS Web page at: <http://www.nmfs.noaa.gov>. NMFS is also working on a system that would allow commenters to submit comments via e-mail. This system may be available for use in 2004.

*Comment 8:* NMFS received a range of comments on the rule and Amendment as a whole. Comments included: NMFS should be commended for adhering to the scientific recommendations from recent stock assessments and proposing conservation measures that have a reasonable chance to protect all shark species. This proposed rule is an encouraging step forward in the long process of rebuilding; management is on the correct path to rebuilding and sustaining this fishery. The continued communication and cooperation between various stakeholders and the inclusion of interested parties and user groups from the inception of the process has helped to ensure the success of these management measures. NMFS has proposed a rule that walks down the middle to allow for a viable commercial fishery while protecting the most vulnerable species; all the alternatives are linked to account for the 50-percent reduction that is needed. The proposed measures will not be enough catalyst to regain a healthy population across the whole spectrum of the shark species; the "collective impact of humanity" on the total population has to be addressed as well as the simplistic concept of the population being overfished.

*Response:* Management measures in this document are a step forward towards rebuilding and are a result of the participation and cooperation of various stakeholders and user groups. Consistent with the Magnuson-Stevens Act, the measures in the final Amendment and this rule are based on the best available science, will rebuild the LCS complex, prevent overfishing of Atlantic sharks, provide for commercial and recreational fisheries, and will clarify other shark-related management measures. Without these management measures, some management measures that are not based on the best available science, such as the 1999 commercial quotas, will go in place, contrary to the Magnuson-Stevens Act. NMFS will continue to work with stakeholders on issues not addressed in this rulemaking during a future rulemaking process.

*Comment 9:* NMFS received a range of comments regarding who is influencing agency decisions. One commenter noted that NMFS settled with the commercial

fishing industry but is fighting the environmental groups tooth and nail in order to protect commercial fish profits. Another commenter was concerned that NMFS is being overly influenced by environmentalists.

*Response:* Environmental groups, recreational fishermen, and commercial fishermen all had the chance to participate in the process and submit comments on the scoping documents and the Draft Amendment 1 and proposed rule. While NMFS considers these comments in selecting the alternatives, the Agency follows the mandates of the Magnuson-Stevens Act and other domestic law when finalizing actions, not the influence of particular stakeholders.

*Comment 10:* While state waters are outside of NMFS' jurisdiction, ensuring rebuilding of overfished sharks is not. NMFS must develop a strategy for working with states and state commissions to implement cooperative shark management in nearshore waters.

*Response:* NMFS will continue to work with states and the Fishery Management Councils with a goal of consistent management in mind. At the time of finalization of the HMS FMP, several states indicated their intent to develop more consistent regulations but decided to postpone their efforts due to the unstable legal environment for Federal shark management. Upon completion of this rule and during the scoping processes for future rulemakings, NMFS hopes to work with those and other states, possibly through the implementation of Memorandum of Understandings, to ensure that, at the minimum, NMFS can have access to all state shark landings and catches from all fisheries for use in future stock assessments.

*Comment 11:* NMFS must reduce bycatch and mortality of sharks in both directed and non-directed fisheries; establish a standardized bycatch reporting methodology; account for all sources of mortality when determining shark quotas and closures; and allocate levels of observer coverage that are adequate to provide statistically significant estimates of catch and bycatch.

*Response:* As described above, NMFS recently issued National Bycatch Implementation Plans for various fisheries, including HMS fisheries. Sources of shark mortality other than the directed fishery landings are included as part of the stock assessments from which the quotas were developed. Levels of observer coverage are generally set at five percent of the total effort in each fishery unless there is a concern that more coverage would

be beneficial, as is the case for the shark gillnet fishery where 100 percent observer coverage is required during the right whale calving season.

*Comment 12:* NMFS should identify and quantify the potential impacts of any HMS fisheries on seabirds so that appropriate protocols can be developed to alleviate potential chronic mortalities associated with the fishery or gear. This will be especially important in future actions associated with pelagic sharks and other components with the HMS FMP.

*Response:* Potential impacts to seabird populations should continue to be monitored and where appropriate, protocols developed to alleviate bycatch problems. Relatively few seabird interactions have been identified in the Atlantic shark fisheries. If a potential problem is identified with the pelagic longline fishery this can be addressed in a future rulemaking.

*Comment 13:* Draft documents need to ensure that detailed effort data is incorporated into the text and tables, especially regarding the bycatch of sea turtles, marine mammals, and sea birds. For example, draft Amendment 1 does not properly quantify the level of observer effort involved in documenting seabird bycatch in the Atlantic pelagic longline fishery (Table 3.38). Therefore, the conclusion that seabird interactions are relatively low holds little merit.

*Response:* The Final Amendment 1 provides an overview of the types of seabird interactions in the shark fishery. The conclusion regarding the level of seabird interactions in Amendment 1 is based on the take of a single seabird in nine years of observer data from the shark bottom longline fishery.

*Comment 14:* NMFS should increase boat and catch monitoring efforts.

*Response:* NMFS already requires 100 percent observer coverage for shark gillnet vessels operating during the right whale calving season and approximately 50 percent outside of the calving season. Observer coverage in the shark bottom longline fishery is targeted as five percent while pelagic longline vessels operating in the NED experimental area are required to carry an observer at all times. A target of five percent observer coverage for pelagic longline vessels fishing outside of the NED is in place. Additional resources would need to be identified in order to increase observer coverage.

*Comment 15:* I need time to prepare for other fisheries and hire crew between notice of the final rule and implementation.

*Response:* For a number of regulations, such as implementation of the time/area closure and VMS

requirement, NMFS is providing time for fishermen to adjust to and prepare for the changes. The commercial quotas, elimination of the commercial minimum size, and certain other measures will be effective at the start of the 2004 fishing year to ensure that more restrictive measures do not go into effect. NMFS provided the approximate dates of effectiveness for the requirements in the Executive Summary of Amendment 1 and before the Response to Comments section of this rule.

*Comment 16:* Are you leaving the 4,000 lb LCS trip limit alone? NMFS should consider some type of trip limit tolerance because the trip limit is not working well now that sandbar and blacktip sharks are not overfished.

*Response:* This rule will not change the 4,000 lb LCS directed trip limit. In the Issues and Options paper released during the public scoping phase of Amendment 1, NMFS indicated that changing the 4,000 lb LCS directed trip limit could be one of the management measures addressed in Amendment 1. However, given the possible changes as a result of Amendment 1, NMFS felt some of the items in the Issues and Options paper, including the 4,000 lb LCS trip limit were beyond the scope of this rulemaking. NMFS may consider those issues in a future rule.

*Comment 17:* NMFS should allow fishermen to fish until the quota is caught instead of scheduling closure dates. I am afraid that if we have a couple of years where we do not catch the quota because of weather, that the quota will be taken away from us. NMFS should monitor landings and allow the season to remain open until the quota is filled.

*Response:* Before the HMS FMP, NMFS monitored the landings and gave five days notice before closing the fishery. This technique led to the quota being exceeded, derby fishing, and unreliable markets because no one knew when the fishery would be closing. Additionally, some dealers and fishermen delayed sending in their reports in an effort to keep the fishery open longer. To address these concerns, in the HMS FMP, NMFS decided to announce, based on previous catch rates, the closing date of the fishery before the fishery opened. Additionally, any over-or underharvest would come off of or be added to the same season's quota of the following year (e.g., first semi-annual season to first semi-annual season). This technique appears to be working (e.g., fewer seasonal quotas have been exceeded and fishing seasons have lengthened) and during scoping few fishermen wanted to change the

current system. With the transition to trimester and regional quotas, there may be some adjustment needed in terms of calculating catch rates and estimating the length of the seasons in each region; however, NMFS does not intend to "take quota away" because of underharvests. In the future, NMFS might adjust the percent of quota available in each fishing season (e.g., if one season is always exceeded while another season always has quota left, some of the quota may be moved to the first season from the second) or might adjust the percent of quota available to each region (e.g., if one region always exceeds its quota while another region does not land its full portion, some of the quota from the second region might be transferred to the first region).

However, any such adjustment would require a rulemaking and would not change the overall total quota available.

*Comment 18:* NMFS should be relying on an observer report from 1994 through 2002, not a report from recent years.

*Response:* NMFS is using the best available science which includes several observer reports that cover only one or two years each.

*Comment 19:* NMFS should re-examine the five percent fin ratio rule. The legal percentage does not work accurately unless the sandbar shark catch is blended down by other LCS with smaller fins.

*Response:* NMFS first implemented the five percent fin ratio in the 1993 Shark FMP. This ratio was based on research that indicated that the average ratio of fin weight (including first dorsal, pectorals, and lower caudal fins) to dressed weight of the carcass was 3.6 percent and the sandbar fin ratio was 5.1 percent. Observer data indicate that, except for a couple of years, the fin ratio for all observed sharks has been under five percent. In December 2000, the Shark Finning Prohibition Act was signed. This Act, which implements the five percent finning ratio for all shark fisheries in the United States, was fully implemented through a final rule released in February 2002. Thus, any changes to the five percent fin ratio would have to be the result of Congress modifying the Act.

*Comment 20:* Because porbeagle sharks are often caught while pursuing cod, mackerel, and other New England finfish, northeast groundfish commercial fishermen should be allowed to keep one porbeagle shark per day per trip without a commercial shark fishing permit.

*Response:* Since 1993, fishermen who have caught and sold sharks in Federal waters have been required to have a Federal shark permit. In 1999, NMFS

implemented a limited access program for the Atlantic shark fisheries. Under this program, any fisherman who had a Federal shark permit and reported landing a limited number of sharks could qualify for either a directed or incidental Federal shark limited access permit. This program was implemented to reduce latent effort in the shark fishery and reduce overcapitalization in order to rebuild the LCS complex and prevent overfishing on other shark species. From past experience, NMFS knows that porbeagle sharks are highly susceptible to overfishing. Until a stock assessment on porbeagle sharks indicates that the porbeagle shark is not overfished and is not experiencing overfishing, NMFS does not want to reopen that sector of the shark fishery. However, those fishermen wishing to land porbeagle sharks can either obtain a commercial permit from someone leaving the fishery or obtain a recreational permit. Any porbeagle sharks that are landed would have to be caught with an authorized gear type.

*Comment 21:* NMFS has not done one iota to protect mako sharks except limit recreational fishermen. While the proposed rule does have some positive proposals that limit commercial fishing, conservation of the most important recreational sharks left, pelagic sharks, continues to be ignored.

*Response:* NMFS is working with ICCAT to collect data in order to conduct an international stock assessment of pelagic sharks. Because pelagic sharks traverse the Atlantic Ocean, NMFS is not able to conduct an accurate stock assessment without data from other countries. The international stock assessment is expected to occur in 2004. Once the international stock assessment is complete, NMFS will consider the results and will modify the management measures for pelagic sharks, as appropriate.

*Comment 22:* NMFS should consider converting directed shark permits that have been inactive since July 1999 to incidental permits. This could help reduce latent effort from becoming active during the rebuilding period.

*Response:* NMFS is considering several options that could lead to changes in the current limited access program in a future rule. NMFS will consider comments such as this one at that time.

*Comment 23:* The number of shark permits should be reduced to 10.

*Response:* In 1999, NMFS implemented a limited access program in the commercial shark fishery to reduce latent effort and capitalization in the fishery. This program established two types of commercial shark permits: directed and incidental. The directed

permits allow fishermen to target sharks while the incidental permits were designed to allow fishermen who target other species to land a limited number of sharks, thus reducing regulatory discards. At this time, NMFS recently approved a Saltonstall-Kennedy Grant to researchers who are examining the feasibility of a buyout program for commercial shark fishermen. Additionally, NMFS will consider other options, such as conversion of directed to incidental permits or individual transferable quotas, to revise and refine the current limited access program in a future rule.

*Comment 24:* Enforcement personnel should be hired and trained to catch fishermen who illegally take and kill any fish species. The budget for enforcement is too small and should be increased by 800 percent.

*Response:* Enforcement personnel are trained to catch fishermen who illegally take and kill any fish species. With a budget increase, more enforcement personnel could be hired and additional resources could be obtained to enhance enforcement efforts throughout the Atlantic Ocean, Gulf of Mexico, and Caribbean Sea.

*Comment 25:* The more information NMFS has, the more money fishermen lose.

*Response:* Improved information ensures that NMFS can better address economic, social, and ecological impacts of proposed management measures. For example, in the 1999 HMS FMP, NMFS finalized commercial shark quotas that are lower than those quotas selected in Amendment 1. However, based on new information and analyses, the latest stock assessment indicates that two species of LCS are no longer overfished. Thus, NMFS is able to select the higher quotas in Amendment 1 than those finalized in 1999. Ideally, as the status of LCS improves, the commercial quota should be able to increase. However, without data from the fishermen, NMFS will not know if the status is improving and therefore would not be able to increase the quota. Indeed, with less data, NMFS may decide that the best, most risk-averse, course of action would be to lower the quotas.

*Comment 26:* NMFS should integrate the Large Pelagic Survey (LPS) within the MRFSS in order to expand and improve the acquisition of recreational landings data for sharks and other HMS.

*Response:* NMFS continues to explore improvements to the design of the LPS and has implemented some of these for the 2003 fishing year. The biggest change was integrating the charterboat and headboat sectors of the LPS and

MRFSS into a single For-Hire Survey for the Atlantic Coast. A separate For-Hire Survey was implemented in 2001 for the Gulf of Mexico. Both of these efforts should provide improved estimates of recreational catch and landings of HMS as well as non-HMS. Evaluation of other modifications already implemented for the LPS are ongoing and may lead to additional changes to survey design and estimation procedures.

*Comment 27:* NMFS received several comments regarding where public hearings should have been held because there are a lot of fishermen who could be affected by the proposed regulations. These areas included New Jersey, Virginia, and Fort Pierce, Florida. NMFS also heard that Montauk, New York should not have had a public hearing because there are no fishermen in the area and it is too far to drive.

*Response:* NMFS tries to schedule a number of public hearings along the Atlantic and Gulf of Mexico coasts in areas where there are a number of fishermen but understands that some areas with many fishermen will likely be unintentionally missed. For Amendment 1, NMFS tried to coordinate public hearings with Fishery Management Council meetings in order to reduce travel for stakeholders who were interested in attending both meetings. In other cases, NMFS scheduled hearings at areas where attendance at previous hearings has been large. People who are unable to attend a public hearing are always welcome to submit written comments or to call NMFS and speak to someone directly. Comments provided over the phone during the comment period are considered part of the public record.

*Comment 28:* NMFS needs to mail fishermen information about public hearings to notify permit holders. While we were mailed information about the hearings for the proposed rule, we did not hear about the scoping meetings.

*Response:* NMFS announces its intentions in a variety of methods including automated infolines, the HMS Fax network, the HMS web page, the weekly electronic newsletter *FishNews*, and through mailings. Because some permit holders have told NMFS that they feel many of the mailings sent are equivalent to junk mail, in this case NMFS limited the mailing to information regarding the actual proposed rule and not the scoping meetings. However, for both the scoping and proposed rules, NMFS used all other methods to announce relevant information. If you would like to be included on any of these automatic distributions (e.g., the HMS Fax network or *FishNews*) please call the HMS

Management Division at (301) 713-2347 or visit the NMFS home page at <http://www.nmfs.noaa.gov> for more information.

### Changes From the Proposed Rule

NMFS has made several changes to the proposed rule. These changes are outlined below.

(1) In the proposed rule, NMFS proposed a LCS rebuilding time frame of 27 years from 2004. In the final rule, NMFS corrects an error in calculating the mean generation time for LCS. The correction of this error leads to a rebuilding time frame of 26 years from 2004 in the final rule.

(2) In the proposed rule, NMFS proposed a LCS quota of 1,109 mt dw (2.4 million lbs dw) based on a 40-percent reduction from MSY. Based on public comment regarding the proposed reduction, a review of the draft Amendment 1 by the Southeast Fisheries Science Center, and revisions to the proposed time/area closure, NMFS increased the quota reduction to 45 percent. Thus, this final rule establishes the annual LCS quota at 1,017 mt dw (approximately 2.2 million lbs dw) based on a 45-percent reduction from MSY.

(3) NMFS proposed a prohibition on drift gillnet gear while allowing strikenet gear in order to reduce protected species interactions while allowing gillnet vessels to continue to fish. In the comment period, NMFS heard that strikenet gear was not an efficient method of fishing for SCS, almost all the gillnet fishermen would go out of business, and it would be difficult for enforcement to tell if a shark was taken via strikenet or drift gillnet gear. Thus, this final rule does not prohibit drift gillnet. Instead, NMFS will consider other methods to reduce bycatch in the drift gillnet fishery in a future rulemaking.

(4) NMFS proposed a time/area closure for bottom longline gear off the coasts of Virginia, North Carolina, and South Carolina in order to reduce catch of dusky sharks and juvenile sandbar sharks. While some fishermen agreed with the principle of closing areas in nursery grounds, they commented that the proposed area was too large and encompassed more than just nursery grounds. Fishermen also suggested closing areas only in shallow waters. As a result, NMFS refined the time/area closure. The time/area closure for bottom longline gear in this final rule encompasses an area off of part of North Carolina out to approximately 60 fathoms.

(5) In order to enforce the proposed time/area closure for bottom longline

gear and the existing time/area closure for gillnet gear, NMFS proposed the installation and use of VMS on vessels with bottom longline and gillnet gear on board. Analyses indicated that shark bottom longline vessels are not mobile. Therefore, the proposed rule required VMS on bottom longline vessels only between 32° and 38° N. latitude. Because NMFS has reduced the size of the time/area closure for bottom longline gear, this final rule also reduces the size of the area where VMS is required for directed shark vessels with bottom longline gear. This final rule requires directed shark vessels with bottom longline gear on board to have VMS on board from January through July when they are located between 33° and 36°30' N. latitude, and directed shark vessels with gillnet gear on board to have VMS on board right whale calving season.

(6) NMFS also made several non-substantial changes to the final regulatory text to facilitate enforcement and clarify the regulations and their intent.

#### Annual Landings Quotas

The 2004 annual landings quotas for LCS and SCS are established at 1,017 mt dw (2,242,078 lbs dw) for LCS and 454 mt dw (1,000,888.4 lbs dw) for SCS. The 2004 quota levels for pelagic, blue, and porbeagle sharks are established at 488 mt dw (1,075,844.8 lbs dw), 273 mt dw (601,855.8 lbs dw), and 92 mt dw (202,823.2 lbs dw), respectively. These quotas are split equally between the two 2004 fishing seasons. The trimester seasons (*i.e.*, three four-month periods), finalized in this rule, will not go into effect until January 1, 2005.

In 2003, the first semiannual fishing season quota for ridgeback LCS was set at 391.5 mt dw and for non-ridgeback LCS was set at 465.5 mt dw. As of September 2003, approximately 451 mt dw ridgeback LCS and 461 mt dw non-ridgeback LCS had been reported landed. This constitutes an overharvest for the first 2003 semiannual fishing season for the LCS complex of 55.4 mt dw. Thus, consistent with § 635.27(b)(1)(vi), the first 2004 semiannual fishing quota for LCS is established at 453.1 mt dw (508.5 mt dw–55.4 mt dw). Consistent with § 635.27(b)(1)(iii), this semiannual fishing season quota is further split between the three fishing regions as follows: Gulf of Mexico—190.3 mt dw (419,535.4 lbs dw); South Atlantic—244.7 mt dw (539,465.6 lbs dw); and North Atlantic—18.1 mt dw (39,903.3 lbs dw).

In the 2003 first semiannual fishing season for SCS, the quota was

established at 163 mt dw. As of September 2003, approximately 109 mt dw had been reported landed. This constitutes an underharvest for the first 2003 semiannual fishing season of 54 mt dw. Thus, consistent with § 635.27(b)(1)(vi), the first 2004 semiannual fishing quota for SCS is established at 281 mt dw (227 + 54 mt dw). Consistent with § 635.27(b)(1)(iv), this semiannual fishing season quota is further split between the three fishing regions as follows: Gulf of Mexico—11.2 mt dw (24,691.5 lbs dw); South Atlantic—233.2 mt dw (514,112.7 lbs dw); and North Atlantic—36.5 mt dw (80,467.9 lbs dw).

The first 2004 semiannual quotas for pelagic, blue, and porbeagle sharks are established at 244 mt dw (537,922.4 lbs dw), 136.5 mt dw (300,927.9 lbs dw), and 46 mt dw (101,411.6 lbs dw), respectively. These are the same quotas that were established for the first 2003 semiannual season. As of September 2003, approximately 39 mt dw had been reported landed in the first 2003 semiannual fishing season in total for pelagic, blue, and porbeagle sharks combined. Additionally, data indicate that in 2002, 68 mt whole weight (ww) of blue sharks were discarded dead in the pelagic longline fishery. Thus, the pelagic shark quota does not need to be reduced consistent with § 635.27(b)(1)(vi).

NMFS will take appropriate action before July 1, 2003, in order to determine and announce the second 2004 semiannual quotas for Atlantic sharks.

#### Fishing Season Notification

The first semiannual fishing season of the 2004 fishing year for the commercial fishery for LCS, SCS, pelagic sharks, blue sharks, and porbeagle sharks in all regions in the western north Atlantic Ocean, including the Gulf of Mexico and the Caribbean Sea, will open January 1, 2004. To estimate the closure dates of the LCS, NMFS calculated the average reported catch rates for each region from the first seasons from recent years (2000, 2001, 2002, and 2003) and used these average catch rates to estimate the amount of available quota that would likely be taken by the end of each dealer reporting period. Because state landings after a Federal closure are counted against the quota, NMFS also calculated the average amount of quota reported received after the Federal closure dates of the years used to estimate catch rates. Additionally, pursuant to § 635.5(b)(1), shark dealers must report any sharks received twice a month: those sharks received between the first and fifteenth of every month

must be reported to NMFS by the twenty-fifth of that month and those received between the sixteenth and the end of the month must be reported to NMFS by the tenth of the following month. Thus, in order to simplify dealer reporting and aid in managing the fishery, NMFS will close the Federal LCS fishery on either the fifteenth or the end of any given month.

Based on average LCS catch rates in recent years in the Gulf of Mexico region, approximately 78 percent of the available LCS quota would likely be taken by the last week of February and 103 percent of the available LCS quota would likely be taken by the second week of March. Dealer data also indicate that, on average, approximately 27 mt dw of LCS have been reported received by dealers after a Federal closure. This is approximately 14 percent of the available quota. Thus, if catch rates in 2004 are similar to the average catch rates from 2000 to 2003, 92 percent (78 + 14 percent) of the quota could be caught over the entire semiannual season if Federal waters are closed during the last week of February. If the fishery remains open until the second week of March, the quota would likely be exceeded. Accordingly, the Assistant Administrator for Fisheries (AA) has determined that the Gulf of Mexico LCS quota for the first 2004 semiannual season will likely be attained by February 29, 2004. Thus, the Gulf of Mexico LCS fishery will close on February 29, 2004, at 11:30 p.m. local time.

Based on average LCS catch rates in recent years in the South Atlantic region, approximately 73 percent of the available LCS quota would likely be taken by the second week of February and 94 percent of the available LCS quota would likely be taken by the end of February. Dealer data also indicate that, on average, approximately 58 mt dw of LCS are reported received by dealers after a Federal closure. This is approximately 24 percent of the available quota. Thus, if catch rates in 2004 are similar to the average catch rates from 2000 to 2003, 97 percent (73 + 24 percent) of the quota could be caught over the entire semiannual season if Federal waters are closed during the second week of February. If the fishery remains open until the end of February, the quota would likely be exceeded. Accordingly, the AA has determined that the South Atlantic LCS quota for the first 2004 semiannual season will likely be attained by February 15, 2004. Thus, the South Atlantic LCS fishery will close on February 15, 2004, at 11:30 p.m. local time.

Based on average LCS catch rates in recent years in the North Atlantic region, approximately 33 percent of the available LCS quota would likely be taken by the second week of April and 42 percent of the available LCS quota would likely be taken by the end of April. Dealer data also indicate that, on average, approximately 10 mt dw of LCS are reported received by dealers after a Federal closure. This is approximately 60 percent of the available quota. Thus, if catch rates in 2004 are similar to the average catch rates from 2000 to 2003, 93 percent (33 + 60 percent) of the quota could be caught over the entire semiannual season if Federal waters are closed during the second week of April. If the fishery remains open until the last week of April, the quota would likely be exceeded. Accordingly, the AA has determined that the North Atlantic LCS quota for the first 2004 semiannual season will likely be attained by April 15, 2004. Thus, the North Atlantic LCS fishery will close on April 15, 2004, at 11:30 p.m. local time.

When quotas are projected to be reached for the SCS, pelagic, blue, or porbeagle shark fisheries, the AA will file notification of closure at the Office of the Federal Register at least 14 days before the effective date.

During a closure, retention of, fishing for, possessing or selling LCS are prohibited for persons fishing aboard vessels issued a limited access permit under 50 CFR 635.4. The sale, purchase, trade, or barter of carcasses and/or fins of LCS harvested by a person aboard a vessel that has been issued a permit under 50 CFR 635.4 are prohibited, except for those that were harvested, offloaded, and sold, traded, or bartered prior to the closure and were held in storage by a dealer or processor.

#### Classification

This final rule is published under the authority of the Magnuson-Stevens Act, 16 U.S.C. 1801 *et seq.*

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

As required under the Regulatory Flexibility Act, 5 U.S.C. 601 *et seq.*, NMFS prepared an Initial Regulatory Flexibility Analysis (IRFA) for the draft Amendment 1 and its proposed rule (68 FR 45196, August 1, 2003) and prepared an FRFA for the final Amendment 1 and this final rule. The FRFA examines the economic impacts of the management alternatives on small entities in order to determine ways to minimize economic impacts. A summary of the information presented in the FRFA is below. Amendment 1 provides further

discussion of the economic impacts of all the alternatives considered.

The need for and objective of the final rule are fully described in the preamble of the proposed rule (68 FR 45196, August 1, 2003) and in final Amendment 1 and are not repeated here.

As set forth above, NMFS received many comments on the proposed rule and draft Amendment 1 during the comment period. NMFS did not receive any comments specific to the IRFA, but did receive a limited number of comments on the potential for substantial impacts related to the proposed commercial quota reductions, implementation of trimester seasons and regional quotas, gillnet restrictions, VMS requirements, and the time/area closure. In summary, commenters noted that commercial quota reductions, VMS requirements, and the bottom longline time/area closure offshore North Carolina would put fishermen out of business and create less economic stability among industry participants; implementation of trimester seasons and regional quotas could disrupt existing markets and lead to insufficient income; and requiring the strikenet method only would not allow the commercial shark gillnet fishery to continue while minimizing interactions, as it was originally intended.

The economic analyses and IRFA for the proposed rule acknowledged that reductions in commercial quotas, implementation of trimesters, regional quotas, VMS requirements, and the time/area closure would likely result in economic impacts to the fishery as a whole, some of which may be significant for small entities/vessel owners. However, all of these alternatives, when compared to the other alternatives considered, mitigate undesirable or greater economic impacts associated with continued overfishing, shortened seasons, bycatch of vulnerable species, and economic instability of fishery participants and associated fishing communities in the long-term. The combination of these preferred alternatives is necessary for LCS to rebuild and SCS to achieve optimum yield, consistent with the objectives of this rule, the Magnuson-Stevens Act, and other domestic laws.

In order to mitigate some of the economic impacts, NMFS will delay effectiveness of trimester seasons, VMS requirements, and the time/area closure in order to give fishermen time to (1) purchase VMS units, (2) work with dealers to enhance market prices and plan out advertising strategies with grocers, and (3) prepare and plan for the closure. Furthermore, NMFS re-

evaluated and refined the size of the proposed time/area closure. The revised time/area closure, which is anticipated to affect only eight vessels as opposed to 13 anticipated in the proposed rule, mitigates the economic impacts to small entities directly affected by the revised closure by \$17,956 in total gross revenues as compared with the original preferred alternative. Finally, the final regulations will permit the use of drift gillnets with possible gear modifications or other measures being implemented in a future rulemaking, based upon further study.

NMFS considers all permit holders to be small entities. In October 2002, there were approximately 251 directed shark permit holders and 376 incidental shark permit holders for a total of 627 permit holders who were authorized to fish for sharks. As of September 2003, there were approximately 256 directed permit holders and 351 incidental permit holders for a total of 607 permit holders who are authorized to fish for sharks and could be affected by the preferred alternatives outlined in the final rule. Only about 20 percent of all permit holders are actually active in the fishery. Currently, 120 vessels (*i.e.*, number of vessels that reported landings of shark during 2001) would be directly affected by changes (*i.e.*, increases/decreases) in shark quotas or other changes to the commercial management measures.

The revised time/area closure would have a direct economic impact on a total of 23 vessels (out of 256 total directed permits issued in 2003 ~ 9 percent) with directed shark permits. As of September 2003, only eight vessels with home ports in North Carolina reported shark landings during 2001.

NMFS knows of fewer than 11 shark fishermen who have used drift gillnet gear to target sharks at some point in the past and only five in recent years. These five vessels would have been affected by the strikenet only requirement in the proposed rule; however, NMFS is not implementing that requirement.

The recreational requirements proposed in this rulemaking could affect all recreational HMS permit holders including HMS angling category permit holders (~ 18,249 as of September 2003) and HMS charter/headboat permit holders (~ 4,041 as of September 2003). These permit holders can target any HMS; however, few actually target sharks.

Other sectors of HMS fisheries such as dealers, processors, bait houses, and gear manufacturers might be affected by these regulations, particularly the shift to trimester seasons for commercial fisheries, reduction in commercial LCS

quota/increase in commercial SCS quota, and time/area closure off North Carolina during the winter commercial fishery. However, the final rule does not apply directly to them. Rather it applies only to permit holders and fishermen. As such, the economic impacts on these other sectors are not discussed in the FRFA.

Some of the preferred alternatives in this document may result in additional reporting, record-keeping, and compliance requirements. The final rule requires Atlantic directed shark fishermen located near the bottom longline time/area closure (approximately eight vessels) and approximately five shark gillnet vessels to install and activate a VMS unit. As discussed below, OMB has approved this collection of information. The costs associated with implementing a VMS program in the Atlantic shark gillnet fishery include an initial average cost per vessel of approximately \$2,275 (not including postage costs for returning certification statement), an average annual maintenance cost of approximately \$500/year, and approximately \$197.28/year for communications during the right whale calving season. Costs associated with implementing a VMS program in the directed shark bottom longline fishery include an initial average cost per vessel of approximately \$2,275 (not including postage costs for returning certification statement), an average annual maintenance cost of approximately \$500/year, and approximately \$305.28/year for communications during the seven month shark bottom longline time/area closure. The position reports generated by the VMS units are automatic so no time burden is imposed on the vessel operator. Installation of VMS will likely increase costs to the vessel owner but should not increase the needed skill level required for HMS fisheries.

The increase in the recreational bag and size limits, change in authorized gear types, addition of the bottom longline time/area closure, requirement to have and use release equipment, and requirement to move 1 nmi after interacting with a protected species may change the way and areas in which fishermen can fish and set their gear, require the possession and use of specific equipment, limit the gears authorized for use in recreational shark fisheries, and increase the skill level needed to participate in HMS fisheries. The increased recreational bag and size limit could result in positive economic benefits if they result in increased tournament participation and business profits within the charter/headboat

industry for sharks. NMFS does not expect changes to the recreational authorized gear to have any substantive economic impacts, because sharks caught recreationally in Federal waters cannot be sold and the majority of HMS recreational fishermen already use the gears being authorized in this final rule. The bottom longline time/area closure and VMS could have significant economic impacts, particularly for those fishermen in states bordering the closure (*i.e.*, North Carolina). However, for vessels not directly affected by the closure there might be a few economic benefits, and NMFS anticipates long-term benefits to the fishery as a whole when the LCS complex rebuilds. The bycatch release equipment and moving 1 nmi after an interaction would likely only have minor economic impacts (*e.g.*, the purchase of stainless-steel hooks and release equipment and minor increases in fuel costs to move one mile after an interaction). Although the release equipment is relatively simple to use, limited training may be required to use them effectively.

No economic impacts are anticipated from the display permit alternative, because this is an administrative name change that does not affect current application processes or related regulations. In addition, the quotas and fishing seasons in this final rule are not likely to change reporting or compliance in the fishery.

NMFS considered a number of alternatives that could minimize the economic impact of the preferred alternatives, particularly those pertaining to LCS commercial quota reductions, revised time/area closures, VMS requirements, and use of corrodible hooks and release equipment aboard bottom longline vessels. Detailed analyses relating to the economic impacts of each alternative considered are provided in the final Amendment 1; a summary is provided here.

The final actions for commercial management measures (*i.e.*, the LCS complex classification, regional quotas, trimester seasons, MSY based quotas, and no minimum size) were designed to minimize economic impacts incurred on fishermen, while simultaneously enhancing equity among users groups, allowing healthy stocks to be managed at optimum yield, and allowing overfished stocks to rebuild. For the LCS complex classification, NMFS considered four alternatives: (1) Ridgeback/non-ridgeback groups with different closure dates (no action); (2) ridgeback/non-ridgeback groups with the same closure date; (3) aggregate LCS complex (final action); and (4) species-specific groups. Compared with the

other alternatives considered, aggregating the LCS complex may reduce costs associated with the lengthening of trips (*i.e.*, fuel, bait, and ice) due to sorting inefficiencies and simplify compliance and reporting requirements. The other classification alternatives, in conjunction with the preferred alternative for the quota basis alternatives, could result in larger quotas; however, those classification alternatives were rejected because they could increase confusion in the fishery and, inconsistent with the Magnuson-Stevens Act, may result in delays for LCS to rebuild.

For quota administration, NMFS considered five alternatives: (1) Semi-annual seasons (no action); (2) no regional quotas (no action); (3) regional quotas (final action); (4) trimester seasons (final action); and (5) quarterly seasons. Implementation of regional quotas is not anticipated to result in any changes to economic benefits or costs because it maintains current fishing patterns based on dealer reports and is anticipated to enhance equity among user regions. Trimester seasons would spread open seasons out more evenly over the calendar year and could, in the long-term, result in greater economic stability for fishermen and associated communities because the amount of time between open and closed seasons would likely be reduced. Thus, in the long-term, the combination of regional quotas and trimester seasons could help minimize any economic impacts caused by other final actions. While maintaining the semiannual seasons and no regional quotas would have no negative economic impacts in the long- or short-term, these alternatives would have no positive economic benefits either.

NMFS considered a wide range of quotas that resulted from the combination of the four LCS complex classification alternatives and the three quota basis alternatives which included: (1) Quota basis from the 1999 HMS FMP (no action); quota based on MSY (final action); and (3) quota based on average landings for past three years. The economic impacts of the quota basis alternatives vary depending on the classification alternatives, thus, the two issues are considered together. Specifically, NMFS evaluated seven different commercial quotas for LCS (ranging from 816 mt dw and 2,559 mt dw) and three different commercial quotas for SCS (ranging from 300 mt dw to 454 mt dw). NMFS carefully considered the results of the 2002 stock assessments for LCS and SCS in evaluating possible quotas. The final action alternatives (quota based on MSY

and aggregating the LCS complex) will implement commercial quota levels of 1,017 mt dw for the LCS aggregate and 454 mt dw for the SCS aggregate, resulting in a 21-percent reduction in LCS quota and a 10-percent increase in SCS quota, respectively, from the baseline quotas outlined in Amendment 1. While combinations of other alternatives could result in increased quotas for LCS, those combinations were rejected because they are likely to result in rebuilding delays for the LCS stock, which is inconsistent with the Magnuson-Stevens Act. Moreover, economic impacts could be incurred in the fishery over the long-term should LCS stocks continue to decline.

NMFS considered six commercial minimum size alternatives: a 4.5 ft FL for ridgeback LCS (no action), no minimum size (final action), and four other alternatives with varying minimum size requirements. This final rule eliminates the current commercial minimum size, thus relieving a restriction that would impose negative economic impacts on the commercial shark fishery. The other alternatives would have imposed varying minimum sizes and were rejected because they would have had greater economic impacts and because other alternatives that protect juvenile sharks, as recommended in the stock assessment, are being implemented in this rule. Given that the current minimum size for commercial fishery has never been implemented due to litigation, NMFS does not anticipate any significant changes in economic benefits or costs from this final action.

Similar to the final actions for commercial quotas, the final action alternatives for recreational retention (*i.e.*, existing limits plus one bonnethead) and minimum size limits (*i.e.*, existing size limits plus no minimum size for bonnethead) were designed to minimize the economic impacts on recreational fishermen, while simultaneously allowing healthy stocks to be managed at optimum yield and overfished stocks to rebuild. NMFS considered seven recreational retention limits including: (1) One shark per vessel per trip plus one Atlantic sharpnose shark per person (no action); (2) one shark per vessel per trip plus one Atlantic sharpnose and one bonnethead shark per person per trip (final action); (3) no limit; (4) catch and release only; and (5) other retention limits. Since the final retention allows the additional retention of bonnethead sharks, this alternative may increase revenues to charter/headboats and other small entities above the no action and catch and release only alternatives. Even

though other alternatives were considered, such as no retention limit, that might further minimize economic impacts, they were rejected because they do not meet fishery management plan goals and objectives including rebuilding overfished LCS and preventing overfishing of Atlantic sharks.

NMFS considered six size limit alternatives including: (1) 4.5 ft FL for all sharks and no size limit for Atlantic sharpnose sharks (no action); (2) 4.5 ft FL for all sharks and no size limit for Atlantic sharpnose and bonnethead sharks (final action); and (3) various other size limits ranging from no size limit to different size limits depending on the species and the area fished. The final size limit alternative takes into account the fact that bonnethead sharks do not reach the minimum size currently in place and simplifies compliance for small entities with the final retention limits for bonnethead sharks. The final size limit alternative is anticipated to increase the willingness to pay, angler consumer surplus, and current revenues to charter/headboat captains and other small entities who rely on the recreational shark fishery for income. Other recreational size limit alternatives were rejected because of economic and stock status concerns.

The final action regarding recreational authorized gear limits fishermen in the recreational fishery to handline and rod and reel and addresses the need for NMFS to clarify which gear types are authorized specifically for recreational fishing activities. Most recreational HMS fishermen already use handline as well as rod and reel in the fishery. As such, there are no anticipated economic costs or benefits associated with implementation of the final action. The no action alternative would have no economic costs but was rejected because it is not consistent with other HMS fisheries and because other, more commercial gears, have higher post-release mortality rates, which could delay rebuilding of LCS. No other alternatives were considered because handline and rod and reel are the only gears typically used for recreational fishing for sharks.

The final action to remove the deepwater and other sharks from the management unit seeks to simplify compliance and reporting requirements under the final rule for small entities. No economic costs are anticipated with from this alternative or from the no action alternative.

The final action that retains the current 19 prohibited species and establishes a criteria for the addition/removal of other species to/from the

prohibited species group, also simplifies compliance and reporting requirements. Given the possibility that recreationally or commercially valuable species may either be added/removed from the prohibited species group, it is possible that economic impacts/benefits would be experienced by small entities. While removing or adding sharks to the prohibited list could have economic impacts, maintaining the status quo while establishing a process to add or remove, should not have economic impacts on a substantial numbers of small entities. Some of the other alternatives considered (returning to five prohibited species, adding finetooth sharks, or removing dusky sharks) could have varying positive or negative economic impacts. These alternatives were rejected because they could delay rebuilding of LCS, inconsistent with Magnuson-Stevens Act, and could result in long-term negative economic impacts if stocks decline further. The other alternative considered (adding deepwater and other sharks) was rejected for similar reasons to those that resulted in removing the group from the management unit.

NMFS considered nine alternatives for bycatch reduction including a no action alternative, modifying authorized gears, limiting gears or soak times, and not allowing any discards. The final actions for bycatch reduction (*i.e.*, install and activate VMS, obtain and use release equipment, use non-stainless steel corrodible hooks, and move 1 nmi after an interaction with a protected species) were designed to minimize the economic impacts on fishermen, while simultaneously promoting bycatch reduction of protected species in shark fisheries. Installation of VMS units could result in economic impacts to small entities in the short-term. However, in the long-term, this alternative could result in increased revenues by preventing more burdensome regulations and allowing more fishing time. Additionally, bottom longline vessels would be able to traverse the closed area, while gillnet vessels may require less observer coverage. No other alternatives are available at this time that are as effective at enforcing closed areas.

Under the VMS requirement approximately five gillnet shark fishing vessels and approximately eight directed category bottom longline shark fishing vessels will need to install VMS units. Requiring VMS for only a portion of the shark fishing fleet, minimizes the economic impact on the remainder of the fleet. Economic analyses of the impacts associated with VMS requirements on small entities indicate

that the average gross revenue by permit holder, during the first year of implementation, will be reduced by nine percent. For every year thereafter, economic analyses on small entities indicate that the average gross revenue by permit holder will be reduced by two percent. As noted above, to minimize economic impacts, NMFS is delaying the effective date of this requirement and will, in the future, type approve VMS units for use in the Atlantic shark fisheries.

The final alternative regarding release equipment, corrodible hooks, and moving after an interaction with a protected species would likely result in minor economic impacts to small entities, primarily because the cost associated with purchasing release equipment is minimal and is a one time cost. Although many shark fishermen may already use non-stainless steel corrodible hooks, this may increase the financial burden on fishermen who will have to purchase new hooks. The requirement to move one nautical mile after an interaction with a marine mammal, sea turtle, or sawfish would likely increase fuel costs due to increased time transiting to another fishing area and increased time needed to fish if alternate fishing grounds are not as productive for target species. However, because few marine mammals, sea turtles, or protected species have been observed caught, NMFS does not believe that this requirement would affect more than a few trips for all vessels combined, each year.

Because the no action alternative does not modify the existing regulations, this alternative is not expected to have any substantive economic impacts. However, this alternative also does not reduce bycatch to the extent practicable as required by the Magnuson-Stevens Act. Some of the other alternatives considered (banning gillnet gear or allowing only strikenet gear) could have significant economic impacts and put some vessels out of business. While these alternatives would reduce bycatch, NMFS has made a commitment to consider other, less burdensome alternatives in a future rulemaking. The alternative that would limit the length of the mainline, limit the soak time, and require corrodible steel hooks could have various negative economic impacts depending on the fishing practices of the fishermen. These alternatives were rejected due to safety and enforcement concerns and due to a lack of sufficient information.

NMFS is also finalizing a time/area closure for sandbar and dusky shark nursery and pupping areas offshore

North Carolina during the winter fishery. This alternative is designed to reduce bycatch of neonate and juvenile sandbar sharks and prohibited dusky sharks by 92 percent and 61 percent, respectively. This alternative is likely to have significant impacts on the small entities/vessel owners directly affected by the closure. As discussed above, NMFS has refined the size of the time/area closure in this final action, thus reducing the number of vessels affected from 13 to 8 and mitigating the economic impacts by \$17,956 in total gross revenues for the small entities directly affected by the closure as compared with the original preferred alternative.

For those vessels affected by the time/area closure, the closure would impose a reduction in catch and income from areas traditionally relied upon and affect fishing practices by requiring fishermen to travel further offshore. Due to greater distances traveled, fishermen would spend more time at sea, and associated costs of food, fuel, and labor could increase. This could cause some fishermen to go out of business, move to new areas, or alter fishing patterns in other ways. This alternative could result in a change in the distribution of benefits and costs, with the financial costs of operating in the fishery increasing and benefits decreasing. However, the time/area closure will facilitate rebuilding of the LCS complex, thus providing for longer term economic stability, and it minimizes the economic impacts compared to the other larger time/area closure alternative considered. The no action/no closure alternative would not impose short-term economic impacts, but could have long-term economic impacts if LCS do not rebuild.

None of the four alternatives considered for identifying EFH would affect small entities in any way that would complicate compliance and reporting requirements for EFH or result in significant economic impacts for small entities.

For EFPs, NMFS considered a no action alternative and an alternative that would administratively separate EFPs for scientific research from display permits. Neither alternative is expected to affect small entities in any way that would complicate compliance and reporting requirements for EFPs or result in significant economic impacts for small entities.

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

Paperwork Reduction Act (PRA) unless that collection of information displays a currently valid OMB control number.

This final rule contains new collection-of-information requirements subject to review and approval by OMB under the PRA. The requirement for installation and activation of VMS aboard vessels with bottom longline or shark gillnet gear on board has been cleared by OMB under control number 0648-0483. The public reporting burden for this collection of information is estimated at: 4 hours for installation of a VMS, 5 minutes for completion of a VMS certification statement, 2 hours per year for VMS maintenance, and 0.3 seconds for an automated position report from a VMS.

This final rule also contains collection-of-information requirements that have been approved by OMB under control number 0648-0471. These requirements and their estimated response times are 30 minutes for an application for a shark display permit, 5 minutes for a catch report from a holder of a shark display permit, 30 minutes for a year-end report by a permit holder, 5 minutes for a notification 24 hours prior to a fishing trip, and 2 minutes for the application of a Passive Integrated Responder tag at the time of collection of a shark.

These estimates include the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding these burden estimates, or any other aspect of these data collections, including suggestions for reducing the burden to NMFS and OMB (*see ADDRESSES*).

These regulations are not expected to have an adverse impact on protected species under the ESA. A BiOp issued October 29, 2003, in response to the proposed rule for Amendment 1 concluded that the level of anticipated take in the Atlantic shark fishery is not likely to jeopardize the continued existence of endangered green, leatherback, and Kemp's ridley sea turtles, the endangered smalltooth sawfish, or the threatened loggerhead sea turtle. Furthermore, it concluded that the actions in the rule are not likely to adversely affect marine mammals.

The species of sea turtles that are expected to be affected by the actions in this final rule are all highly migratory. NMFS believes that no individual members of any of the species are likely to be year-round residents of the action area. Individual animals will make migrations into nearshore waters as well as other areas of the North Atlantic

Ocean, Gulf of Mexico, and the Caribbean Sea. Therefore, the range-wide status of the affected species of sea turtles most accurately reflects the species' status within the action area. Sea turtles can be captured as a result of the use of bottom longlines, gillnets and rod and reel/handline fishing gear. Captured turtles can be released alive uninjured or can be killed as a result of the interaction. Some turtles that are released alive from bottom longline gear may die later as a result of the ingestion of a hook, endangerment in the gear, or the trailing of gear that was not cut away prior to release.

Smalltooth sawfish are not highly migratory species, although some large, mature individuals may engage in seasonal north/south movements. The U.S. Distinct Population Segment (DPS) of smalltooth sawfish is confined to only a small portion of the action area, mainly waters off Florida and possibly occasionally off Georgia. Only large, mature individuals are known to occur in the action area. Information is not available regarding how much time smalltooth sawfish of different sizes spend at different depths. Generally smaller (younger) animals are restricted to shallower waters, whereas large animals are believed to roam over a larger depth range. The smalltooth sawfish may only be present in the U.S. EEZ intermittently, spending the rest of their time in shallower waters. Based on this information, the range-wide status of smalltooth sawfish most accurately reflects the species' status within the action area. Smalltooth sawfish can also be captured as a result of the use of bottom longlines, gillnets and rod and reel/handline. The October 2003 BiOp for Atlantic shark fisheries represents the first Federal fishery to undergo formal consultation for this species.

In the bottom longline fishery a total of 43 sea turtles were observed caught from 1994 through 2002 based on 862 observed sets. Of the 43 sea turtles observed, 31 were loggerhead sea turtles of which 17 were released alive. Another nine loggerheads were released in an unknown condition and five were released dead. Based on extrapolation of observer data and reported effort from the logbook data, the BiOp estimates that a total of 2,003 loggerhead sea turtles were taken in the shark bottom longline fishery from 1994 through 2002. An additional 503 unidentified sea turtles were estimated to have been taken. On average, 222 loggerhead sea turtles and 56 unidentified sea turtles were taken annually during this time period in the shark bottom longline fishery. The BiOp estimates that

approximately 123 loggerheads are killed per year on bottom longline gear.

Four of the 43 observed sea turtles taken in the bottom longline fishery were leatherback sea turtles; three of these were released in an unknown condition and one was released dead. Based on these observations, the BiOp estimates that 269 leatherback sea turtles were taken in the shark bottom longline fishery during 1994 through 2002. On average, approximately 30 leatherback sea turtles each year were taken by the shark bottom longline fishery during 1994 through 2002 and an estimated 17 leatherbacks were killed per year.

Smalltooth sawfish have also been observed caught (seven known interactions, six released alive, one released in unknown condition) in shark bottom longline fisheries from 1994 through 2002. Based on extrapolation of these observations, a total of 466 sawfish are estimated to have been taken in this fishery from 1994 to 2002, resulting in an average of 52 takes per year. All of the sawfish takes observed, except for one, were released alive. Based on this information, NMFS expects no smalltooth sawfish will be killed on bottom longline gear as a result of the measures in this final rule over the next five years.

In the shark gillnet fishery, loggerhead sea turtles are rarely caught. During the 1999 right whale calving season no loggerhead sea turtles were caught in this fishery. No loggerhead sea turtles were observed caught with strikenets during the 2000–2002 right whale calving seasons. However, three loggerhead sea turtles have been observed caught with drift gillnets during right whale calving season, one each year from 2000 to 2002. During the 2000 and 2001 non-right whale calving seasons, no loggerhead sea turtles were observed caught in gillnets fished in a strikenet method while one loggerhead sea turtle was observed caught and released alive in gillnets fished in a driftnet method. No loggerhead sea turtles were caught outside of the right whale calving season in 2002. Expanded take estimates for sea turtles in the shark drift gillnet fishery provides the following estimated takes of loggerhead sea turtles by year: 1999—none; 2000—one mortality and 4.4 live takes; 2001—one live take; and 2002—1.7 live takes.

In the shark gillnet fishery, leatherback sea turtles are sporadically caught. During the 1999 right whale calving season, two leatherback sea turtles were caught in this fishery, and both were released alive. No leatherback sea turtles were observed caught with

strikenets during the 2000–2002 right whale calving seasons. Leatherback sea turtles have also been observed caught with gillnets including fourteen in 2001 and two in 2002. NMFS temporarily closed the shark gillnet fishery (strikenetting was allowed) from March 9 to April 9, 2001, due to the increased number of leatherback interactions that year (66 FR 15045, March 15, 2001). During the 2000 and 2001 non-right whale calving seasons, no leatherback sea turtles were observed caught in gillnets fished in strikenet or driftnet methods. No leatherback sea turtles were caught outside of the right whale calving season in 2002. The estimated takes of leatherback sea turtles by year were as follows: 1999—none; 2000—none; 2001—two mortalities and 12 live takes; and 2002—3.4 live takes.

To date there has been only one observed catch of a smalltooth sawfish in shark gillnet fisheries. The sawfish was taken on June 25, 2003, in a gillnet set off of southeast Florida and it was released alive. The set was characteristic of a typical drift gillnet set, with gear extending 30 to 40 feet deep in 50 to 60 feet of water. The previous absence of smalltooth sawfish incidental capture records is likely attributable to the relatively low effort in this fishery and the rarity of smalltooth sawfish, especially in Federal waters. These factors may result in little overlap of the species with the gear. The recently observed smalltooth sawfish was cut from the net and released alive with no visible injuries. This indicates that smalltooth sawfish can be removed safely if entangled gear is sacrificed.

As discussed in the proposed action, gillnets are also used to “strikenet”. When strike gillnetting fishers target and encircle specific schools of sharks after visually detecting them (usually by spotter pilot). Given the large and or distinct morphology of smalltooth sawfish, this species would likely be detected visually, as well as distinguished from shark species, and thus avoided. This fishing method has also been shown to reduce potential encounters by limiting the time that gear is in the water. Strikenet sets are typically only one to two hours in contrast to six to 10 hours for each drift gillnet set. Endangered and threatened species, or protected marine mammals have never been observed taken in strikenet sets.

Given the high rate of observer coverage in the shark gillnet fishery, NMFS believes that smalltooth sawfish takes in this fishery are very rare. The fact that there were no smalltooth sawfish caught during the year 2001, when 100 percent of the fishing effort

was observed, indicates that smalltooth sawfish takes (observed or total) most likely do not occur on annual basis.

Recreational fishermen targeting sharks generally use bait and hook. Sea turtles are known to take baited hooks. NMFS has no data specifically showing that sea turtles are taken by recreational anglers fishing for sharks. Most recorded sea turtle captures by recreational fishermen occur off fishing piers where sea turtles are known to frequent due to lighting and the concentration of bait. There were no sea turtles caught during the June Gulf Coast Shark Census held each year between 1991 and 1999 (operating out of Sarasota) which happens offshore and not on fishing piers. The selected measures in Amendment 1 pertain to recreational shark fishing in Federal waters. Based on the information above NMFS believes that the chances of a recreational shark fishermen catching a sea turtle in Federal waters is discountable.

Smalltooth sawfish are known to be occasionally hooked with rod and reel and/or handline during recreational fishing. These captures occur most frequently in state waters in the vicinity of the Everglades National Park and Florida Bay, where the current population is concentrated. North of this area, the number of reported captures declines greatly. The National Park Service, Everglades National Park, monitors fishing activity and harvest in this area in part by conducting interviews with anglers and fishing guides at local boat ramps. These interviews indicate that the majority of anglers do not try to catch any particular kind of fish. Target species of the minority group that did try to catch a particular type, however, included snook, spotted sea trout, red drum, and tarpon. Thus the vast majority of incidental smalltooth sawfish captures are not from shark fishing.

The only indication that smalltooth sawfish may be occasionally hooked by a fishermen targeting sharks stems from the June Gulf Coast Shark Census between 1991 and 1999. Five smalltooth sawfish were captured and released in 20,000 line hours of recreational fishing effort. The captures, however, were all from either inside the barrier islands or just offshore from barrier islands, along the southwest Florida coast between Cape Romano and Saint Petersburg; thus all within state waters.

Given the overall scarcity of smalltooth sawfish encounters in state waters where this species is believed to occur in greater abundance and density, the chances of a smalltooth sawfish being encountered during recreational

fishing in Federal waters are extremely rare. The MRFSS database has no records of smalltooth sawfish captured in Federal waters, let alone one during fishing targeting sharks. Therefore, NMFS believes that the chances of a recreational shark fisherman catching a smalltooth sawfish in Federal waters are discountable.

The final action to reduce the LCS commercial quota from 1997–2002 levels, resulting in a 45 percent reduction, is expected to reduce fishing effort for the shark bottom longline fishery. Effort reductions are not expected in the shark gillnet fishery because it primarily targets SCS, and drift gillnet fishing will not be eliminated by this final rule. The 2003 BiOp for the Atlantic shark fishery found that the reduction in bottom longline effort may result in a reduction of the number of sea turtle interactions. NMFS has no way of quantifying the effect on sea turtles at this time. Any such effort reductions will only reduce smalltooth sawfish interactions if effort reductions occur in the southern fishing areas where smalltooth sawfish are known to occur.

Although the time/area closure of North Carolina is expected in part to reduce the bycatch of prohibited species such as the dusky shark, the 2003 BiOp found it may have the added benefit of reducing potential sea turtle interactions. This benefit depends however, on how much effort reduction actually results from this action. Most bottom longline fishermen tend to fish close to their home port, so if redistribution of effort does occur, the effort is expected to redistribute to areas adjacent to or seaward of the closure. Sea turtle interactions may occur in these areas as well, thus reduced sea turtle interactions may not be realized if effort is merely redistributed. The time/area closure occurs north of where smalltooth sawfish occur, thus will provide no benefit to smalltooth sawfish. Conversely, should effort redistribute to the southern fishing grounds, smalltooth sawfish interactions could potentially increase as a result of the time area closure. Based on the expected area of any effort redistribution, however, NMFS believes the time/area closure will have no smalltooth sawfish impacts.

The requirement to have VMS on directed shark gillnet and bottom longline vessels will aid in enforcement of the time/area closure. Additionally, this measure could lead to improvements in effort data in this area which is used in estimating takes of protected species. Any such improvements however, would only

potentially benefit sea turtles, as again this would be in areas outside the range of smalltooth sawfish.

NMFS is not reducing the recreational bag limit but is working towards increasing compliance with existing regulations. NMFS is also restricting the authorized gear in the recreational fishery to handline and rod and reel. Post-release mortality of these gear types is lower than that of traditional commercial gears such as bottom longline or gillnet. Since these gears are presently not used in recreational fishing, little benefit to sea turtles and smalltooth sawfish is expected.

Some of the regulations in this final rule were specifically designed to reduce, to the extent practicable, bycatch and bycatch mortality of sea turtles and marine mammals. These alternatives include: requiring the use of corrodible hooks, de-hooking devices (once a de-hooking device is approved), dipnets, and line cutters on bottom longline vessels (similar to the requirements for pelagic longline vessels); and requiring bottom longline vessels to move 1 nmi after an interaction with a protected species (also similar to the requirement for pelagic longliners). The 2003 BiOp found these measures are expected to have a positive impact on protected species. Additionally, the 2003 BiOp concluded that non-stainless steel corrodible hooks for the directed shark bottom longline fishery will minimize impacts to sea turtles and smalltooth sawfish if they are accidentally hooked. De-hooking equipment should also safely release incidentally caught sea turtles.

Based on observer data, observed and self-reported effort data, and the distribution and density of sea turtles in the action area, NMFS anticipates that the continued prosecution of the Atlantic shark fisheries may result in take of protected species. Currently available information on the relationship between sea turtles and sawfish and the Atlantic shark fishery indicates that injury and/or death of sea turtles and smalltooth sawfish is likely to occur. Therefore, pursuant to section 7(b)(4) of the ESA, the 2003 BiOp anticipates an actual 5-year total incidental take for the Atlantic shark fishery of: (1) 172 leatherback turtles, of which 88 will be lethal; (2) 1370 loggerhead turtles of which 755 will be lethal; (3) 30 total in any combination of hawksbill, green, and Kemp's ridley, with 5 lethal takes per species; and (4) 261 smalltooth sawfish, of which no lethal takes are expected. The above take estimates were further broken down by gear type. These limits

represent the number of total estimated takes, based on observed takes extrapolated across total effort levels for this fishery. Each gear type must be considered independently, and if the actual calculated incidental captures or mortalities exceed the amount estimated below for a gear type, the 2003 BiOp specifies that formal consultation for that gear type must be re-initiated immediately.

The AA has determined that the list of actions in this rule, which seek to rebuild the LCS complex, prevent overfishing of the LCS complex, and prevent overfishing of other species of sharks, are consistent to the maximum extent practicable with the enforceable policies of the coastal states in the Atlantic, Gulf of Mexico, and Caribbean that have Federally approved coastal zone management programs under the CZMA. NMFS asked for states' concurrence with this determination during the proposed rule stage. Ten states replied affirmatively regarding the consistency determination. NMFS presumes that the remaining states that have not yet responded also concur with the determination. One state, Georgia, replied that allowing the use of gillnets, including the proposed strikenet method, is not consistent with the State's CZMA program.

The State of Georgia objects to the consistency determination due to the continuing operation of the shark gillnet fishery in Federal waters impacting resources shared by adjacent state waters. Specifically, the State of Georgia raises a concern regarding the impact of the shark gillnet fishery on sea turtles, marine mammals, and sport fish. NMFS acknowledges the concern raised; however, under the Magnuson-Stevens Act's (16 U.S.C. 1801 *et seq.*) National Standards, the Agency must, among other things, base its actions upon the best scientific information available; implement conservation and management measures to prevent overfishing while achieving, on a continuing basis, the optimum yield from each fishery; and minimize bycatch and bycatch mortality to the extent practicable (16 U.S.C. 1851(a)(2), (1), and (9)).

National Standard 2, which requires that management measures be based on the best scientific information available, would preclude a closure of the shark gillnet fishery in Federal waters, or a partial closure just off Georgia, in this action. At this time, there is insufficient information to support such management measures. Data currently available indicate relatively low rates of bycatch and bycatch mortality of protected species and other finfish in

this fishery. Incidental capture of threatened and endangered species is regulated under the ESA. As discussed above, according to the October 29, 2003, BiOp prepared pursuant to the ESA, there are relatively low rates of bycatch and bycatch mortality in the shark gillnet fishery. The BiOp, which incorporates the best scientific information available, did not conclude that continuation of the shark gillnet fishery would jeopardize any endangered or threatened resources and included a new incidental take statement for the fishery. Therefore, NMFS is not prohibiting the use of this gear at this time.

In its decision to not ban gillnet gear, NMFS also considered other requirements of the Magnuson-Stevens Act, including but not limited to National Standards 1 and 9. Shark gillnets are the commercial gear that are used to primarily target SCS, a complex that is not, according to the latest SCS stock assessment, overfished. Based on the best scientific information available, this Amendment will manage the fishery for OY, consistent with National Standard 1, by preferring a quota level that would increase the SCS commercial quota from the level in the 1999 HMS FMP. Given that a quota increase is warranted under the stock assessment, closing the shark gillnet fishery in Federal waters would not achieve, on a continuing basis, the OY from the fishery.

With regard to bycatch, this Amendment minimizes bycatch and bycatch mortality to the extent practicable, consistent with National Standard 9. While this final rule does not prohibit the use of gillnet gear, NMFS did consider an alternative that would allow only the strikenet method in the shark gillnet fishery and also a permanent closure of the fishery, which would make this rule fully consistent with Georgia's CZMA program. However, NMFS did not prefer either alternative, due to the lack of sufficient data and also taking into consideration the significant, negative social and economic impacts on the five vessels actively fishing in the shark gillnet fishery. Instead, this final rule will require all shark gillnet vessels to install and activate VMS during right whale calving season. In a future rulemaking, NMFS will examine additional gear modifications or other alternatives to reduce bycatch and bycatch mortality in this fishery. NMFS will also continue to work with existing take reduction teams and Fishery Management Councils to examine methods of reducing bycatch. Thus, NMFS finds that the final regulations implemented in the FMP

Amendment are consistent with Georgia's Coastal Zone Management Program to the maximum extent practicable.

Several measures in this final action (implementation of the commercial LCS and SCS quotas through regional quotas, removal of the commercial minimum size, and allowing recreational fishermen to retain one bonnethead shark per person per vessel with no minimum size) relieve restrictions. Currently, the Atlantic commercial shark fishery is operating under quotas established under an emergency rule extension that will expire on December 29, 2003 (68 FR 31983, May 29, 2003). The extension implements quotas based upon the 2002 LCS and SCS stock assessments and temporarily suspends a commercial minimum size and quotas from the 1999 HMS FMP, which were based upon a 1998 assessment. When the extension expires, the 1999 quotas and commercial minimum size will go back into effect. This final rule would increase the LCS and SCS quotas that would come into effect on December 30, 2003, with the expiration of the existing emergency rule. Specifically, the overall LCS quota would increase from 816 mt dw (1999 HMS FMP) to 1,017 mt dw and the SCS quota would increase from 359 mt dw (1999 HMS FMP) to 454 mt dw, thus relieving a restriction by allowing more retention of fish. Removal of the commercial minimum size and changes to the recreational minimum size and retention limit would also relieve regulatory requirements. Because this regulation relieves requirements, as stated above, pursuant to 5 U.S.C. 553(d)(1), the 30-day delayed effectiveness period for the above management measures is not applicable and these provisions will become effective on December 30, 2003.

In addition, there is good cause, pursuant to 5 U.S.C. 553(d)(3), to waive the 30-day delay in effectiveness for the commercial quotas and removal of the commercial minimum size. After reviewing peer reviews of the 1998 assessment, which were required as part of a court-approved settlement agreement, NMFS determined that portions of that assessment did not constitute the best available science. The LCS and SCS quotas in this final action, which are based on the 2002 assessments, must be effective by December 30, 2003, otherwise, quotas that are more restrictive and not based on the best available science will go into effect, which is inconsistent with National Standard 2 of the Magnuson-Stevens Act. If the commercial minimum size is not removed by December 30, 2003, fishermen may

incur additional fuel and supply costs in order to fish further offshore to target larger fish. During development of this final rule, NMFS provided many opportunities for public participation and made the FEIS for Amendment 1 available to the public for 30 days prior to making its final decision (68 FR 64621, November 14, 2003). Thus, members of the public were aware of what the rule was likely to contain. It would be contrary to the public interest to delay the implementation of these measures because of the economic impact on fishermen. Therefore, pursuant to 5 U.S.C. 553(d)(3), there is good cause to waive the delay in effectiveness for the commercial quotas and minimum size.

**List of Subjects**

*50 CFR Part 600*

Administrative practice and procedure, Confidential business information, Fisheries, Fishing, Fishing vessels, Foreign relations, Intergovernmental relations, Penalties, Reporting and recordkeeping requirements, Statistics.

*50 CFR Part 635*

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

Dated: December 17, 2003.

**William T. Hogarth,**  
Assistant Administrator for Fisheries,  
National Marine Fisheries Service.

■ For the reasons set out in the preamble, 50 CFR parts 600 and 635 are amended as follows:

**PART 600—MAGNUSON-STEVENS ACT PROVISIONS**

■ 1. The authority citation for 50 CFR part 600 continues to read as follows:

**Authority:** 5 U.S.C. 561 and 16 U.S.C. 1801 *et seq.*

■ 2. In § 600.725, section IX of the list of authorized fisheries and gears in paragraph (v) is revised to read as follows:

**§ 600.725 General prohibitions.**

\* \* \* \* \*  
(v) \* \* \*

*Fishery*

*Authorized gear types*

\* \* \* \* \*

**IX. SECRETARY OF COMMERCE**

1. Atlantic Tunas, Swordfish, and Sharks Fisheries (FMP):

A. Swordfish handgear fishery .....	A. Rod and reel, harpoon, handline, bandit gear.
B. Pelagic longline fishery .....	B. Longline.
C. Shark gillnet fishery .....	C. Gillnet
D. Shark bottom longline fishery .....	D. Longline.
E. Shark handgear fishery .....	E. Rod and reel, handline, bandit gear.
F. Shark recreational fishery .....	F. Rod and reel, handline.
G. Tuna purse seine fishery .....	G. Purse seine.
H. Tuna recreational fishery .....	H. Rod and reel, handline.
I. Tuna handgear fishery .....	I. Rod and reel, harpoon, handline, bandit gear.
J. Tuna harpoon fishery .....	J. Harpoon.
2. Atlantic Billfish Fishery (FMP):	
Recreational fishery .....	Rod and reel.
3. Commercial Fisheries (Non-FMP) .....	Rod and reel, handline, longline, gillnet, harpoon, bandit gear, purse seine.

\* \* \* \* \*

**PART 635—ATLANTIC HIGHLY MIGRATORY SPECIES**

■ 3. The authority citation for 50 CFR part 635 continues to read as follows:

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

■ 4. In § 635.2, in the definition of “Management unit,” paragraph (5) is revised, and new definitions for “Display permit,” and “Mid-Atlantic shark closed area,” are added in alphabetical order to read as follows:

**§ 635.2 Definitions.**

\* \* \* \* \*

*Display permit* means a permit issued in order to catch and land HMS for the purpose of public display pursuant to § 635.32.

\* \* \* \* \*

*Management unit* means in this part:

\* \* \* \* \*

(5) For sharks, means all fish of these species in the western north Atlantic Ocean, including the Gulf of Mexico and the Caribbean Sea, excluding those species listed in Table 2 of Appendix A.

\* \* \* \* \*

*Mid-Atlantic shark closed area* means the Atlantic Ocean area seaward of the inner boundary of the U.S. EEZ from a point intersecting the inner boundary of the U.S. EEZ at 35°41' N. lat. just south of Oregon Inlet, North Carolina, and connecting by straight lines the following coordinates in the order stated: 35°41' N. lat., 75°25' W. long. proceeding due east to 35°41' N. lat., 74°51' W. long.; then proceeding southeast to 35°30' N. lat., 74°46' W. long.; then proceeding southwest, roughly following the 55 fathom mark, to 33°51' N. lat., 76°24' W. long.; then

proceeding due west to intersect the inner boundary of the U.S. EEZ at 33°51' N. lat., 77°53' W. long. near Cape Fear, North Carolina.

\* \* \* \* \*

■ 5. In § 635.3, paragraph (d) is revised to read as follows:

**§ 635.3 Relation to other laws.**

\* \* \* \* \*

(d) An activity that is otherwise prohibited by this part may be conducted if authorized as scientific research activity, exempted fishing or exempted educational activity, or for public display, as specified in § 635.32.

■ 6. In § 635.5, paragraph (e) is revised to read as follows:

**§ 635.5 Recordkeeping and reporting.**

\* \* \* \* \*

(e) *Inspection.* Any person authorized to carry out enforcement activities

under the regulations in this part has the authority, without warrant or other process, to inspect, at any reasonable time, catch on board a vessel or on the premises of a dealer, logbooks, catch reports, statistical records, sales receipts, or other records and reports required by this part to be made, kept, or furnished. An owner or operator of a fishing vessel that has been issued a permit under § 635.4 or § 635.32 must allow NMFS or an authorized person to inspect and copy any required reports and the records, in any form, on which the completed reports are based, wherever they exist. An agent of a person issued a permit under this part, or anyone responsible for offloading, storing, packing, or selling regulated HMS for such permittee, shall be subject to the inspection provisions of this section.

\* \* \* \* \*

**§ 635.16 [Removed and Reserved]**

- 7. Remove and reserve § 635.16.
- 8. In § 635.20, paragraph (e) is revised to read as follows:

**§ 635.20 Size limits.**

\* \* \* \* \*

(e) *Sharks*. All sharks landed under the recreational retention limits specified at § 635.22(c) must have the head, tail, and fins attached. All sharks, except Atlantic sharpnose and bonnethead sharks, landed under the recreational retention limits specified at § 635.22(c) must be at least 54 inches (137 cm) FL.

\* \* \* \* \*

- 9. In § 635.21, paragraph (d) is redesignated as paragraph (e), a new paragraph (d) is added, and the newly redesignated paragraphs (e)(3)(i) through (e)(3)(iv) and (e)(3)(vi) are revised to read as follows:

**§ 635.21 Gear operation and deployment restrictions.**

\* \* \* \* \*

(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.

(1) Effective January 1, 2005, if bottom 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 in the mid-Atlantic shark closed area from January 1 through July 31 each calendar year.

(2) When a marine mammal, sea turtle, or smalltooth sawfish is hooked or entangled by bottom longline gear, the operator of the vessel must immediately release the animal, retrieve the bottom longline gear, and move at least 1 nmi (2 km) from the location of the incident before resuming fishing. Reports of marine mammal entanglements must be submitted to NMFS consistent with regulations in § 229.6 of this title.

(3) The operator of a vessel required to be permitted under this part and that has bottom longline gear on board must:

(i) Undertake the same bycatch mitigation measures as specified in paragraphs (c)(5)(i), (ii), and (iii)(B) of this section to release sea turtles, prohibited sharks, or smalltooth sawfish, as appropriate. If a smalltooth sawfish is caught, the fish should be kept in the water while maintaining water flow over the gills and examined for research tags and the line should be cut as close to the hook as possible.

(ii) Possess and use a dehooking device that meets the minimum design standards. The dehooking device must be carried on board and must be used to remove the hook from any hooked sea turtle, prohibited shark, or other animal, as appropriate. The dehooking device should not be used to release smalltooth sawfish. NMFS will file with the Office of the Federal Register for publication the minimum design standards for approved dehooking devices. NMFS may also file with the Office of the Federal Register for publication any additions and/or amendments to the minimum design standards. **Note:** This paragraph (d)(3)(ii) is not effective until further notification is published in the **Federal Register**.

(e) \* \* \*

(3) \* \* \*

(i) No person may possess a shark in the EEZ taken from its management unit without a permit issued under § 635.4. No person issued a shark LAP under § 635.4 may possess a shark by any gear other than rod and reel, handline, bandit gear, longline, or gillnet. No person issued an HMS Angling permit or an HMS Charter/headboat permit under § 635.4 may possess a shark in the

EEZ if the shark was taken from its management unit by any gear other than rod and reel or handline, except that persons on a vessel issued both an HMS Charter/headboat permit and a shark LAP may possess sharks taken with rod and reel, handline, bandit gear, longline, or gillnet if the vessel is not engaged in a for-hire fishing trip.

(ii) No person may fish for sharks with a gillnet with a total length of 2.5 km or more. No person may have on board a vessel a gillnet with a total length of 2.5 km or more.

(iii) Provisions on gear deployment for the southeast U.S. shark gillnet fishery to implement the Atlantic Large Whale Take Reduction Plan are set forth in § 229.32(f) of this title.

(iv) While fishing for Atlantic sharks with a gillnet, the gillnet must remain attached to at least one vessel at one end, except during net checks.

\* \* \* \* \*

(vi) Vessel operators are required to conduct net checks every 0.5 to 2 hours to look for and remove any sea turtles, marine mammals, or smalltooth sawfish. Smalltooth sawfish should not be removed from the water while being removed from the net.

\* \* \* \* \*

- 10. In § 635.22, paragraph (c) is revised as follows:

**§ 635.22 Recreational retention limits.**

\* \* \* \* \*

(c) *Sharks*. One shark from either the large coastal, small coastal, or pelagic group may be retained per vessel per trip, subject to the size limits described in § 635.20(e), and, in addition, one Atlantic sharpnose shark and one bonnethead shark may be retained per person per trip. Regardless of the length of a trip, no more than one Atlantic sharpnose shark and one bonnethead shark per person may be possessed on board a vessel. No prohibited sharks from the management unit, which are listed in table 1(d) of appendix A to this part, may be retained. The recreational retention limit for sharks applies to any person who fishes in any manner, except to a person aboard a vessel who has been issued an Atlantic shark LAP under § 635.4. If an Atlantic shark quota is closed under § 635.28, the recreational retention limit for sharks may be applied to persons aboard a vessel issued an Atlantic shark LAP under § 635.4, only if that vessel has also been issued an HMS Charter/Headboat permit issued under § 635.4 and is engaged in a for-hire fishing trip.

\* \* \* \* \*

- 11. 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 paragraphs (b)(1)(i) through (b)(1)(vi) of this section apply to sharks harvested from the management unit, regardless of where harvested. Commercial quotas are specified for each of the management groups of large coastal sharks, small coastal sharks, and pelagic sharks. No prohibited sharks from the management unit, which are listed in table 1(d) of appendix A to this part, may be retained except as authorized under § 635.32.

(i) *Fishing seasons.* For the 2004 fishing year, the commercial quotas for large coastal sharks, small coastal sharks, and pelagic sharks will be split between two fishing seasons: January 1 through June 30 and July 1 through December 31. Starting on January 1, 2005, and for each following year, the commercial quotas for large coastal sharks, small coastal sharks, and pelagic sharks will be split between three fishing seasons: January 1 through April 30, May 1 through August 30, and September 1 through December 31.

(ii) *Regions.* The commercial quotas for large coastal sharks and small coastal sharks are split between three regions. The regions are: Gulf of Mexico, South Atlantic, and North Atlantic. For the purposes of this section, the Gulf of Mexico region includes all waters of the U.S. EEZ west and north of the boundary stipulated at 50 CFR 600.105(c). The South Atlantic region includes all waters east of the Gulf of Mexico region north to the border between North Carolina and Virginia at roughly 36°30' N. lat., including the waters surrounding the Caribbean. The North Atlantic region includes all waters north of the North Carolina and Virginia border at roughly 36°30' N. lat.

(iii) *Large coastal sharks.* The annual commercial quota for large coastal sharks is 1,017 mt dw, unless adjusted pursuant to paragraph (b)(1)(vi) of this section. This annual quota is split between the regions as follows: 42 percent to the Gulf of Mexico, 54 percent to the South Atlantic, and 4 percent to the North Atlantic. The length of each fishing season will be determined based on the projected catch rates, available quota, and other relevant factors. At least 30 days prior to the beginning of the season, NMFS will file with the Office of the Federal Register for publication the length of each season.

(iv) *Small coastal sharks.* The annual commercial quota for small coastal sharks is 454 mt dw, unless adjusted pursuant to paragraph (b)(1)(vi) of this

section. This annual quota is split between the regions as follows: 4 percent to the Gulf of Mexico, 83 percent to the South Atlantic, and 13 percent to the North Atlantic.

(v) *Pelagic sharks.* The annual commercial quotas for pelagic sharks are 92 mt dw for porbeagle sharks, 273 mt dw for blue sharks, and 488 mt dw for pelagic sharks other than porbeagle or blue sharks, unless adjusted pursuant to paragraph (b)(1)(vi) of this section.

(vi) *Annual adjustments.* (A) NMFS will adjust the next year's fishing season quotas for large coastal, small coastal, and pelagic sharks to reflect actual landings during any fishing season in any particular region. For example, a commercial quota underharvest or overharvest in the fishing season in one region that begins January 1 will result in an equivalent increase or decrease in the following year's quota for that region for the fishing season that begins January 1. NMFS will file any adjustment with the Office of the Federal Register for publication at least 30 days prior to the start of the next fishing season.

(B) NMFS will reduce the annual commercial quota for pelagic sharks by the amount that the blue shark quota is exceeded at least 30 days prior to the start of the next fishing season.

(C) Sharks taken and landed from state waters are counted against the fishery quota for the applicable region and time period.

(2) *Public display and research quota.* The annual quota for persons who collect sharks from any of the management groups under a display permit or EFP is 60 mt whole weight (43 mt dw). All sharks collected under the authority of a display permit or EFP, subject to restrictions at § 635.32, will be counted against this quota.

\* \* \* \* \*

■ 12. In § 635.28, paragraph (b) is revised to read as follows:

**§ 635.28 Closures.**

\* \* \* \* \*

(b) *Sharks.* (1) The commercial fishery for large coastal sharks will remain open in each region under the fishing seasons and regional quotas, as specified at § 635.27(b)(1). From the effective date and time of a season closure in a particular region until additional quota becomes available, the fishery for large coastal sharks in that particular region is closed.

(2) When the fishing season quota for small coastal sharks or pelagic sharks specified in § 635.27(b)(1) is reached for a particular region, or is projected to be reached, NMFS will file for publication

with the Office of the Federal Register, a notice of closure at least 14 days before the effective date. From the effective date and time of the closure until additional quota becomes available, the fishery for the appropriate shark species group in that particular region is closed.

(3) When the fishery for a shark species group in a particular region is closed, a fishing vessel, issued an Atlantic Shark LAP pursuant to § 635.4, may not possess or sell a shark of that species group in that region, except under the conditions specified in § 635.22 (a) and (c), and a shark dealer in that region, issued a permit pursuant to § 635.4, may not purchase or receive a shark of that species group from a vessel issued an Atlantic Shark LAP, 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 regional closure and were held in storage. Under a regional 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 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 Shark LAP, HMS Angling permit, or HMS Charter/Headboat permit pursuant to § 635.4.

\* \* \* \* \*

■ 13. In § 635.32, paragraph (a) is revised; paragraphs (c)(2) and (c)(3) are removed; paragraphs (d) and (e) are redesignated as paragraphs (e) and (f), respectively; a new paragraph (d) is added; and the newly redesignated paragraphs (e) and (f) are revised to read as follows:

**§ 635.32 Specifically authorized activities.**

(a) *General.* Consistent with the provisions of § 600.745 of this chapter, except as indicated in this section, NMFS may authorize for the conduct of scientific research or the acquisition of information and data, for the enhancement of safety at sea, for the purpose of collecting animals for public education or display, or for investigating the reduction of bycatch, economic discards or regulatory discards, activities otherwise prohibited by the regulations contained in this part. Activities subject to the provisions of this section include, but are not limited to, scientific research resulting in, or likely to result in, the take, harvest or incidental mortality of Atlantic HMS, exempted fishing and exempted educational activities, or programs

under which regulated species retained in contravention to otherwise applicable regulations may be donated through approved food bank networks. Such activities must be authorized in writing and are subject to all conditions specified in any letter of acknowledgment, exempted fishing permit, scientific research permit, or display permit issued in response to requests for authorization under this section. For the purposes of all regulated species covered under this part, NMFS has the sole authority to issue permits, authorizations, and acknowledgments. If a regulated species landed or retained under the authority of this section is subject to a quota, the fish shall be counted against the quota category as specified in the written authorization. Inspection requirements specified in 635.5(e) of this part apply to the owner or operator of a fishing vessel that has been issued a exempted fishing permit, scientific research permit, or display permit.

\* \* \* \* \*

(d) *Display permits.* (1) For activities consistent with the purposes of this section and § 600.745(b)(1) of this chapter, NMFS may issue display permits.

(2) Notwithstanding the provisions of § 600.745 of this chapter and other provisions of this part, a valid display permit is required to fish for, take, retain, or possess an HMS in or from the Atlantic EEZ for the purposes of public display. A valid display permit must be on board the harvesting vessel, must be available when the fish is landed, must be available when the fish is transported to the display facility, and must be presented for inspection upon request of an authorized officer. A display permit is valid for the specific time, area, gear, and species specified on it. Species landed under a display permit shall be counted against the appropriate quota specified in § 635.27 or as otherwise provided in the display permit.

(3) To be eligible for a display permit, a person must provide all information concerning his or her identification, numbers by species of HMS to be collected, when and where they will be collected, vessel(s) and gear to be used, description of the facility where they will be displayed, and any other information that may be necessary for the issuance or administration of the permit, as requested by NMFS.

(4) Collectors of HMS for public display must notify the local NMFS Office for Law Enforcement at least 24 hours, excluding weekends and holidays, prior to departing on a collection trip, regardless of whether the

fishing activity will occur in or outside the EEZ, as to collection plans and location and the number of animals to be collected. In the event that a NMFS agent is not available, a message may be left.

(5) All live HMS collected for public display are required to have either a conventional dart tag or a microchip Passive Integrated Transponder (PIT) tag applied by the collector at the time of the collection. Both types of tags will be supplied by NMFS. Conventional dart tags will be issued unless PIT tags are specifically requested in the permit application and their use approved by NMFS. Terms and conditions of the permit will address requirements associated with the use of the tags supplied on a case-by-case basis.

(e) *Applications and renewals.* Application procedures shall be as indicated under § 600.745(b)(2) of this chapter, except that NMFS may consolidate requests for the purpose of obtaining public comment. In such cases, NMFS may file with the Office of the Federal Register for publication notification on an annual or, as necessary, more frequent basis to report on previously authorized exempted fishing, scientific research, or public display activities and to solicit public comment on anticipated EFP, SRP, LOA, or public display permit requests. Applications for EFP, SRP, and public display permit renewals are required to include all reports specified in the applicant's previous EFP, SRP, or public display permit including the year-end report, all delinquent reports for EFPs, SRPs, and public display permits issued in prior years, and all other specified information, in order for the renewal application to be considered complete. In situations of delinquent reports, renewal applications will be deemed incomplete and a permit will not be issued under this section.

(f) *Terms and conditions.* (1) Written reports on fishing activities and disposition of catch for all HMS either retained, discarded alive or dead, or tagged and released under a permit issued under this section, must be submitted to NMFS, at an address designated by NMFS, within 5 days of the fishing activity, without regard to whether the fishing activity occurs in or outside the EEZ. Also, an annual written summary report of all fishing activities and disposition of all fish captured under the permit must be submitted to NMFS, at an address designated by NMFS, within 30 days after the expiration date of the permit. NMFS will provide specific conditions and requirements as needed, consistent with the Fishery Management Plan for

Atlantic Tunas, Swordfish and Sharks, in the permit. If an individual issued a Federal permit under this section captures no HMS in any given month, either in or outside the EEZ, a "no-catch" report must be submitted to NMFS within 5 days of the last day of that month.

(2) Permit conditions regarding fishing activities, such as gear deployment, monitoring, or soak time, may be specified by NMFS if warranted, on a case-by-case basis.

(3) NMFS may select for at-sea observer coverage any vessel issued a permit under this section. Selected vessels must comply with the requirements for observer accommodation and safety specified at §§ 635.7, 600.725, and 600.746 of this chapter.

14. In § 635.34, paragraph (b) is revised and paragraph (c) is added to read as follows:

**§ 635.34 Adjustment of management measures.**

\* \* \* \* \*

(b) In accordance with the framework procedures in the Fishery Management Plan for Atlantic Tunas, Swordfish, and Sharks and the Fishery Management Plan for Atlantic Billfishes, NMFS may establish or modify for species or species groups of Atlantic HMS the following management measures: maximum sustainable yield or optimum yield levels based on the latest stock assessment or updates in the SAFE report; domestic quotas; recreational and commercial retention limits, including target catch requirements; size limits; fishing years or fishing seasons; shark fishing regions or regional quotas; species in the management unit and the specification of the species groups to which they belong; species in the prohibited shark species group; classification system within shark species groups; permitting and reporting requirements; Atlantic tunas Purse Seine category cap on bluefin tuna quota; time/area restrictions; allocations among user groups; gear prohibitions, modifications, or use restrictions; effort restrictions; essential fish habitat; and actions to implement ICCAT recommendations, as appropriate.

(c) NMFS may add species to the prohibited shark species group specified in Table 1 of appendix A if, after considering the criteria in paragraphs (c)(1) through (4) of this section, the species is determined to meet at least two of the criteria. Alternatively, NMFS may remove species from the prohibited shark species group and place them in the appropriate shark species group in Table 1 of appendix A if, after

considering the criteria in paragraphs (c)(1) through (4) of this section, NMFS determines the species only meets one criterion.

(1) Biological information indicates that the stock warrants protection.

(2) Information indicates that the species is rarely encountered or observed caught in HMS fisheries.

(3) Information indicates that the species is not commonly encountered or observed caught as bycatch in fishing operations for species other than HMS.

(4) The species is difficult to distinguish from other prohibited species.

■ 15. In § 635.69, paragraphs (a), (e), and (h) are revised to read as follows:

**§ 635.69 Vessel monitoring systems.**

(a) *Applicability.* To facilitate enforcement of time-area and fishery closures, an owner or operator of a commercial vessel, permitted to fish for Atlantic HMS under § 635.4 and that fishes with a pelagic or bottom longline or strikenet gear, is required to install a NMFS-approved vessel monitoring system (VMS) unit on board the vessel and operate the VMS unit under the following circumstances:

(1) Whenever the vessel is away from port with pelagic longline gear on board;

(2) Whenever a vessel, issued a directed shark LAP, is away from port with bottom longline gear on board, is located between 33°00' N. lat. and 36°30' N. lat., and the mid-Atlantic shark closed area is closed to bottom longline fishing as specified in § 635.21(d)(1); or

(3) Whenever a vessel, issued a directed shark LAP, is away from port with a gillnet on board during the right whale calving season specified in the Atlantic Large Whale Take Reduction Plan in § 229.32(f) of this title. **Note:** Paragraphs (a)(2) and (a)(3) of this section are not effective until further notification is published in the **Federal Register**.

(4) A vessel is considered to have pelagic longline gear on board, for the purposes of this section, when gear as specified at § 635.21(c) is on board. A vessel is considered to have bottom longline gear on board, for the purposes of this section, when gear as specified at § 635.21(d) is on board. A vessel is considered to have gillnet gear on board, for the purposes of this section, when gillnet, as defined in § 600.10, is on board a vessel that has been issued a shark LAP.

\* \* \* \* \*

(e) *Operation.* Owners or operators of vessels permitted, or required to be permitted, to fish for HMS, that have

pelagic or bottom longline gear or gillnet gear on board, and that are required to have a VMS unit installed, as specified in paragraph (a), must activate the VMS to submit automatic position reports beginning 2 hours prior to leaving port and continuing until the vessel returns to port. While at sea, the unit must operate without interruption and no person may interfere with, tamper with, alter, damage, disable, or impede the operation of a VMS, or attempt any of the same. Vessels fishing outside the geographic area of operation of the installed VMS will be in violation of the VMS requirement.

\* \* \* \* \*

(h) *Access.* As a condition to obtaining a LAP for Atlantic swordfish, sharks, or tunas, all vessel owners or operators using pelagic or bottom longline or gillnet gear, subject to the VMS provisions of this section must allow NMFS, the USCG, and their authorized officers and designees access to the vessel's position data obtained from the VMS at the time of or after its transmission to the vendor or receiver, as the case may be.

■ 16. In § 635.71, paragraphs (a)(1), (a)(2), (a)(7), (a)(14), (a)(17), (a)(18), (a)(23), (a)(26), (a)(34), (a)(37), (b)(7), (b)(8), (c)(1), (d)(10), (d)(12), and (d)(13) are revised, and paragraphs (a)(39) and (a)(40) are added to read as follows:

**§ 635.71 Prohibitions.**

\* \* \* \* \*

(a) \* \* \*

(1) Falsify information required on an application for a permit submitted under § 635.4 or § 635.32.

(2) Fish for, catch, possess, retain, or land an Atlantic HMS without the appropriate valid vessel permit, LAP, EFP, SRP, or display permit on board the vessel, as specified in §§ 635.4 and 635.32.

\* \* \* \* \*

(7) Fail to allow an authorized agent of NMFS to inspect and copy reports and records, as specified in § 635.5(e) or § 635.32.

\* \* \* \* \*

(14) Fail to install, activate, repair, or replace a vessel monitoring system prior to leaving port with pelagic longline gear, bottom longline gear, or gillnet gear on board the vessel as specified in § 635.69.

\* \* \* \* \*

(17) Fish for Atlantic tunas or swordfish with a gillnet or possess Atlantic tunas or swordfish on board a vessel with a gillnet on board, as specified in § 635.21 (b), (e)(1), and (e)(4)(ii).

(18) Fail to retrieve fishing gear and move after an interaction with a protected species, as specified in § 635.21 (c)(3) or (d)(2).

\* \* \* \* \*

(23) Fail to comply with the restrictions on use of a pelagic longline, bottom longline, or gillnet as specified in § 635.21 (c), (d), or (e)(3).

\* \* \* \* \*

(26) Violate the terms and conditions or any provision of a permit issued under §§ 635.4 or 635.32.

\* \* \* \* \*

(34) Fail to disengage any hooked or entangled sea turtle with the least harm possible to the sea turtle as specified at § 635.21 (c)(5) or (d)(3).

\* \* \* \* \*

(37) Fail to report to NMFS, at the number designated by NMFS, the incidental capture of listed whales with shark gillnet gear and sea turtle mortalities associated with pelagic longline gear as required by § 635.5.

\* \* \* \* \*

(39) Deploy or fish with any fishing gear, from a vessel with a bottom longline on board, in any closed area during the time periods specified at § 635.21(d)(1).

(40) Deploy or fish with any fishing gear, from a vessel with bottom longline gear on board, without carrying a dipnet, line clipper, and dehooking device as specified at § 635.21(d)(3).

(b) \* \* \*

(7) Fish for, catch, retain, or possess a BFT with gear not authorized for the category permit issued to the vessel or to have such gear on board when in possession of a BFT, as specified in § 635.21(e)(1).

(8) Fail to request an inspection of a purse seine vessel, as specified in § 635.21(e)(1)(vi)(B).

\* \* \* \* \*

(c) \* \* \*

(1) Retain a billfish on board a vessel with a pelagic longline on board or harvested by gear other than rod and reel, as specified in § 635.21(e)(2).

\* \* \* \* \*

(d) \* \* \*

(10) Retain, possess, sell, or purchase a prohibited shark, as specified under § 635.22(c) and § 635.27(b)(1) or fail to disengage any hooked or entangled prohibited shark with the least harm possible to the animal as specified at § 635.21(d)(3).

\* \* \* \* \*

(12) Fish for Atlantic sharks with unauthorized gear or possess Atlantic sharks on board a vessel with unauthorized gear on board as specified in § 635.21(e)(3).

(13) Fish for Atlantic sharks with a gillnet or possess Atlantic sharks on

board a vessel with a gillnet on board, except as specified in § 635.21(e)(3).

\* \* \* \* \*

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