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## **D.0 APPENDIX: PROPOSED RULE AND DRAFT ENVIRONMENTAL IMPACT STATEMENT COMMENTS AND RESPONSES**

### **D.1 SCS Commercial Quotas**

#### *Science/Stock Assessment*

Comment 1: National Marine Fisheries Service (NMFS) received comments regarding the average weights used for blacknose sharks. Commenters noted that the blacknose shark stock must be healthy, since blacknose sharks of various sizes are being landed across all fisheries. In addition, the Gulf of Mexico Fishery Management Council (GMFMC) commented that the average size of blacknose shark landed in the recreational fishery weighed only 1.5 lb dressed weight (dw), which corresponds to a fish less than two feet long, and therefore it appears that this data is incorrect. The recreational catches included only landed sharks. However, released blacknose sharks make up a substantial proportion of the total recreational catches, in some years exceeding landings. In other stock assessments, a release mortality percentage is applied to the releases reported in Marine Recreational Fishing Statistics Survey (MRFSS) to account for recreational dead discards. Leaving recreational dead discards out may result in erroneous assessment results.

Response: NMFS recognizes that blacknose sharks of various sizes are caught in the SCS fishery, and that the average weight for recreationally caught blacknose sharks, which is the best available data from MRFSS, may be underestimated. However, only recreational landings and discard data were used in the stock assessments; average weights in the recreational fishery were not used in the 2007 SCS and blacknose shark assessments. In order to estimate recreational landings and dead discards for the stock assessment, NMFS used data from three recreational surveys (MRFSS, the NMFS Headboat Survey, and the Texas Parks and Wildlife Department Recreational Fishing Survey). NMFS also used MRFSS to estimate blacknose shark average weights, and NMFS realizes that an average weight for recreationally-caught blacknose sharks of less than 2 lb dw reflects a small juvenile shark, but this average weight of blacknose sharks is the best available data from MRFSS. Recent data from the Southeast Fisheries Science Center (SEFSC) has shown that the average size of blacknose sharks caught in gillnets is 18.7 lb dw, as opposed to the 14.4 lb dw that was used in the DEIS analysis. Based on this updated average weight, NMFS has modified the average weight of blacknose sharks across all commercial gears types to 6.4 lbs, as opposed to 5.4 lbs used in the DEIS. Consistent with 40 C.F.R. §1503.4(2)-(3), NMFS responded to this comment in the DEIS improved its analysis of blacknose mortality rates and developed, identified and evaluated a new A6, which would set the SCS quota at 221.6 mt dw and the blacknose quota at 19.9 mt dw. The preferred alternative in the DEIS was A-4.

Comment 2: Several commenters had questions on where the research for the stock assessments occur, who does the assessments and research, what data goes into the

assessments and whether the assessment considered the Atlantic Large Whale Take Reduction Plan regulations.

Response: The 2007 Southeast Data, Assessment, and Review (SEDAR) SCS stock assessment was organized around three workshops. All workshops are open to the public to ensure the assessment process is transparent. The first is a Data Workshop, during which fisheries monitoring, life history data, catch data and indices of abundance from both fishery independent and fishery dependent sources are reviewed and compiled. The report of the Data Workshop provides all sources of data and research that was conducted and included in the stock assessment. The data reviewed at this workshop includes fishery dependent data (e.g., fishermen, dealer and observer reports), fishery independent data (e.g., scientific surveys), and scientific data regarding the biology of the species. In all, participants of the Data Workshop reviewed over 20 individual catch indices along with other data regarding catches and biological information. Current and historical regulations such as the Atlantic Large Whale Take Reduction Plan regulations and the Atlantic HMS regulations are summarized for consideration by the participants in the stock assessment. The scientists realize that management can affect fisheries monitoring, and data collection and work to account for these impacts when finalizing the data to be used in the assessment models. The explanation of the process for conducting the stock assessment is provided in Chapter 3 of the FEIS.

Comment 3: Fishermen are not fishing for sharks, including blacknose sharks, anymore since it is not profitable. NMFS could be misinterpreting this decline in effort as population declines. Shark catches are just incidental catches and occur only in the Tortugas.

Response: NMFS recognizes that effort has decreased in the shark fisheries in terms of the number of boats and in the number of sets, and that there are several fishermen in the Atlantic, GOM and Caribbean still fish for sharks in a directed and incidental manner. In order to account for this decreased effort, NMFS uses a weighted average of effort and landings when conducting data analysis. This provides a better understanding of the catch-per-unit effort of the active vessels in the fishery. Furthermore, the SEDAR stock assessment process uses fishery-independent data in the analysis. This type of data is generally immune to, and helps correct for, changes in fishing effort.

Comment 4: NMFS received several comments stating that the SEDAR 13 2007 SCS stock assessment is not the "best available science." Commenters noted concerns over certain data issues, the use of trawl data before and after TEDs were required, modeling assumptions, and management choices described in the stock assessment. One commenter stated that while he has advocated for closing the shark gillnet fishery, he is concerned that NMFS is using suspect data to justify what would otherwise be a good outcome. Other commenters noted that shark stock assessments for various species tend to move the species assessed from overfished to healthy and then from healthy to overfished frequently. Many commenters felt that NMFS should wait for the new stock

assessment and should not implement new quotas or other regulatory changes for blacknose sharks based on the 2007 assessment.

Response: NMFS used the best available science and a rigorous SEDAR stock assessment process to make the determination that blacknose sharks are overfished with overfishing occurring. The independent review panel determined that the data used in the SCS stock assessment were considered the best available at the time. They also determined that appropriate standard assessment methods based on general production models and on age-structured modeling were used to derive management benchmarks given the data available. Therefore, NMFS believes that the 2007 SCS stock assessment represents the best available science and is not considering delaying implementation of management measures until the next stock assessment is completed. Under the NS1 Guidelines, if a stock is overfished, NMFS is required to “take remedial action by preparing an FMP, FMP amendment, or proposed regulation...to rebuild the stock or stock complex to the MSY level within an appropriate time frame” (50 CFR 600.310(e)(3)(ii)). Additionally, “in cases where a stock or stock complex is overfished, [the] action must specify a time period for rebuilding the stock or stock complex that satisfies the requirements of section 304(e)(4)(A) of the Magnuson-Stevens Act.” Therefore, consistent with the results of the 2007 SCS stock assessment results, the 2006 Consolidated HMS FMP, and the Magnuson-Stevens Act, NMFS is implementing final management measures to rebuild blacknose sharks, while providing an opportunity for the sustainable harvest of the other sharks in the SCS complex. The discussion of the SEDAR stock assessment process is included in Chapter 3 of the FEIS. NMFS believes that the assessment remains the best scientific data available at this time and the agency is required by National Standard 2 to utilize this information.

Comment 5: The stock assessment should not have combined the two blacknose shark stocks found in the Gulf of Mexico region and the Atlantic coast region. The problem arises with the differences caused by a lack of migration movement between regions and the annual breeding cycle of the Gulf of Mexico stock coupled with the biennial breeding cycle of the Atlantic stock of mature female blacknose sharks. NMFS scientists should model them as two separate stocks and not one. Additionally, because of differences in life history parameters, blacknose sharks in the western North Atlantic should be managed separately from those in the Gulf of Mexico.

Response: In the 2007 SCS stock assessment, the assessment scientists considered the issue and determined that blacknose sharks should be assessed as one stock. The scientists noted that there was conflicting genetic data regarding the existence of two separate stocks, and the potential differences in the reproductive cycle for South Atlantic and Gulf of Mexico populations. As a result, the assessment used an average reproductive cycle of 1.5 -years (the average between reproductive cycles of one year in the Gulf of Mexico and two years in the South Atlantic region). Also, reproductive scenarios were conducted during the stock assessment to determine the effect of different reproductive cycles on the stock status. Under both reproductive scenarios, the overall stock status of blacknose sharks did not change. Thus, the reviewers and assessment scientists agreed that the base case scenario of a 1.5-year reproductive cycle was

appropriate for the assessment. Because it was determined that blacknose sharks are one stock, NMFS plans on implementing regulations to rebuild the blacknose shark stock for the South Atlantic and Gulf of Mexico together. The discussion of the SEDAR stock assessment process is included in Chapter 3 of the FEIS and adequately addressed this issue. NMFS believes that the assessment remains the best scientific data available at this time and the agency is required by National Standard 2 to utilize this information. The existing analysis is adequate changes were therefore not made in the FEIS in response to this comment.

Comment 6: Commenters had questions on why the SCS stock assessment only included data up to 2005 and on the catch rate data from the trawl survey over the last 30 years.

Response: The data used in the 2007 SCS stock assessment includes data up to 2005, which was the most current year of data available at the time the SEDAR Data Workshop was held in February of 2007. Full descriptions of the data used in the 2007 blacknose stock assessment to estimate blacknose bycatch in the GOM are in SEDAR13-DW-31 and SEDAR13-DW-32. Both papers are available on the SEDAR website at [http://www.sefsc.noaa.gov/sedar/Sedar\\_Documents.jsp?WorkshopNum=13&FolderType=Data](http://www.sefsc.noaa.gov/sedar/Sedar_Documents.jsp?WorkshopNum=13&FolderType=Data). As outlined in the Final SEDAR 13 SCS Report, the blacknose shark bycatch in the South Atlantic was calculated as a proportion of the Gulf of Mexico bycatch. As for the data from the Southeast Area Monitoring and Assessment Program (SEAMAP), six “time series” were used to estimate blacknose shark bycatch in the shrimp trawl fisheries. These were the fall time series Fall Groundfish (FG) 1972-1986, First Fall (FF) 1987, Fall SEAMAP (FS) 1988-2006; and the summer time series Summer SEAMAP (SS) 1987-2006, Early SEAMAP (ES) 1982-1986, and Texas Closure (TC) 1981. The SEAMAP surveys did not utilize TEDs. However, shrimp trawl observer data from 1972-2005 also were used to estimate blacknose bycatch in the shrimp trawl fisheries and shrimp trawl effort data for the Gulf of Mexico and the South Atlantic from 1972 – 2005 were also used in the SEDAR 13 assessment. The discussion of the SEDAR stock assessment process is included in Chapter 3 of the FEIS. It discloses the data sources that existed at the time of the stock assessment. NMFS believes that the assessment and the data upon which it relied remains the best scientific data available at this time. The agency is required by National Standard 2 to utilize this information. The existing data and analysis are adequate and changes were therefore not made in the FEIS in response to this comment.

Comment 7: Will the next blacknose shark assessment be a benchmark or update? The protocol of the shrimp observer program seems to be reporting just shark groups, not species specific reporting. NMFS should follow up on this through the observer program.

Response: Since the 2007 stock assessment, NMFS and industry scientists have been developing different models for analyzing the shrimp trawl data. Because the new models, which currently have not been peer reviewed, would be a change in methodology from the 2007 stock assessment, the next blacknose shark assessment will be a benchmark assessment. The Data Workshop for this assessment, which will also assess

sandbar and dusky sharks will take place in summer 2010. NMFS is currently working with the shrimp observer program to increase species specific shark data reporting.

Comment 8: NMFS received comments regarding the survival of blacknose sharks and that stated that blacknose sharks are alive at the boat and will survive if released. NMFS also received comments that disputed the reduction of blacknose catches.

Response: A review of the data from the 2005-2008 Shark Gillnet Observer Database, which reported the number of sharks caught in the gillnet fishery during observed trips, detailed the disposition of the sharks caught in gillnets. From this data, the number of sharks that were landed and kept, landed alive and released, and landed dead and discarded was determined. Based on this data, NMFS has changed the mortality rate for discards to 80 percent instead of 100 percent that was used in the DEIS. Although catch rates may remain unchanged, a stock may show signs of stress through changes in average size towards smaller individuals, or to increasingly larger numbers of younger individuals in the stock. While there has not been a reduction in blacknose shark commercial landings, based on the most current stock assessment, the blacknose shark stock has been determined to be overfished, with overfishing occurring. For this reason, NMFS has decided to implement management measures to rebuild this overfished stock and to stop overfishing. Based on this comment NMFS made changes in mortality rates in its analysis in the FEIS.

#### *Shrimp Trawls and Working with the Regional Fishery Management Councils*

Comment 9: NMFS received many comments regarding the blacknose shark mortality related to the Gulf of Mexico shrimp trawl fisheries. The State of Louisiana agrees that the majority of the reported blacknose shark mortality comes as bycatch from the Gulf of Mexico shrimp trawl fishery, but notes that the effort in this fishery has been reduced from 2005 due to hurricanes Katrina and Rita and fuel prices. The GMFMC and others also commented that the Gulf of Mexico shrimp trawl bycatch portion of blacknose shark mortality (45 percent) seems high. Specifically, these commenters note that shrimp fishing effort in 2005 in areas where red snapper are abundant was reduced by 50 to 60 percent from 2001-2003 periods and was reduced by approximately 65 percent in 2006. It has been further reduced in 2007 and 2008 by approximately 75 percent. The number of vessels participating in the offshore shrimp fishery is expected to continue declining until at least 2012, and has been further reduced by the impacts of hurricanes Katrina and Rita. With time/area closures, the shrimp trawl effort is unlikely to rebuild to its prior historical levels. As a result, basing blacknose shark mortality rates by gear type using the years 1999-2005 may produce anomalous results that are not representative of long term trends. Those estimates should be recalculated using more recent years or a longer time series of years. All of these comments stated that NMFS should update their mortality figures utilizing current offshore Gulf of Mexico shrimp trawl effort data.

Response: NMFS would like to thank the State of Louisiana and the GMFMC for their comments. NMFS is working with the GMFMC, and agrees that blacknose shark

mortalities have dropped significantly due to decreased effort in the shrimp trawl fishery in the Gulf of Mexico. NMFS also recognizes that the impacts from hurricanes, and other events, in recent years may have affected effort or landings data. Effort in the Gulf of Mexico shrimp fishery has decreased 64 percent from the average effort across the entire Gulf of Mexico in 1999-2005 compared to effort in 2008 (James Nance, NMFS SEFSC pers. comm.). Although an analysis of the spatial/temporal distribution of this reduction relative to the distribution of blacknose shark bycatch has not been conducted, a starting assumption could be that this equates to a commensurate 64 percent reduction in bycatch.

Modeling efforts are ongoing that incorporate a TED effect in the bycatch estimation model. Preliminary analyses utilizing the new modeling technique indicate that bycatch may have been reduced by approximately 50 percent in 1999-2005. When bycatch reductions from the effort reduction of 64 percent are combined with an approximately 50- percent bycatch reduction anticipated from the TED effect, a preliminary estimate of the overall reduction is approximately 82 percent from 1999-2005 levels. Full results will be provided once the study is complete. The uncertainty is not fully defined in these preliminary bycatch estimates, and there may be spatio-temporal differences in bycatch trends. More data and further analyses are required to determine any uncertainty in the estimates and to re-evaluate the status of the blacknose shark stock. The next assessment is scheduled for 2010, and NMFS will re-visit shrimp bycatch and shrimp trawl effort at that time. Since the modeling data, analyses and conclusions are preliminary and have not been peer reviewed, they are not available for use in the FEIS. NMFS believes that the 2007 SCS assessment and the data upon which it relied with respect to bycatch in the shrimp trawl fisheries remains the best scientific data available at this time. The agency is required by National Standard 2 to utilize this information. The existing data and analysis are adequate and changes were therefore not made in the FEIS in response to this comment.

Comment 10: NMFS received comments regarding the Georgia Bulldog trawl video and the ability of blacknose sharks to go through TEDs. Several commenters expressed skepticism that blacknose sharks could fit through the four inch bar spacing of a TED. Other commenters asked about the species of shark in the video and whether they went through the TED.

Response: The SEFSC's video footage of TEDs in shrimp trawls shows sharks and protected resources (*i.e.*, sea turtles) being excluded from shrimp trawls using TEDs with less than 4-inch bar spacing. The video footage was taken from a shrimp trawler, the R/V *Georgia Bulldog*, off the coast of Georgia, within 10 miles of shore, in water depths less than 40 feet. The footage shows that some small sharks (blacknose, bonnethead, and Atlantic sharpnose), as well as various other finfish, can pass through the TEDs and into the codend of the trawl; NMFS has not conducted any analysis on the bycatch at this time (*e.g.*, bycatch was not identified to species, length measurements were not taken). The video is not appropriate for detailed analysis of the TED impact on catch and bycatch, but rather serves as a starting point because it shows that sharks do make it through this bycatch reduction device technology. The discussion and analysis of SCS bycatch in the shrimp trawl fisheries used in the 2007 SCS stock assessment remains

the best scientific data available at this time. The agency is required by National Standard 2 to utilize this information. The existing data and analysis are adequate and changes were therefore not made in the FEIS in response to this comment.

Comment 11: NMFS received numerous comments regarding the bycatch of blacknose sharks in shrimp trawl fisheries. Commenters suggested that NMFS should study potential ways to reduce bycatch of blacknose sharks and other species in trawl fisheries, including gear modifications, gear restrictions, or time-area closures and implement measures to reduce this bycatch. In addition, NMFS received comments that NMFS should work together with Regional Fishery Management Councils to reduce the bycatch of blacknose sharks in the shrimp trawl fisheries and to ensure annual catch limits (ACLs) and accountability measures (AMs) are set for fisheries that catch blacknose sharks in order to limit the significant mortality in the shrimp fisheries.

Response: NMFS is working with the Gulf of Mexico and South Atlantic Fishery Management Councils to establish bycatch reduction methods, as appropriate, to reduce blacknose shark mortality in the shrimp trawl fisheries. In addition, NMFS SEFSC has been working with industry scientists to re-evaluate the shrimp bycatch models used in the 2007 SCS stock assessments. In particular, they have been evaluating the effect of TEDs on SCS bycatch in shrimp trawls. NMFS continues to monitor and evaluate bycatch in HMS fisheries through the PLL, BLL, and gillnet observer programs, and evaluation of management measures such as closed areas trip limits, and gear modifications. Because the Gulf of Mexico and South Atlantic Councils manage the shrimp trawl fisheries, NMFS is only implementing measures in this amendment to reduce the landings and discards in Atlantic shark fisheries. Regulatory changes to the shrimp trawl fisheries in the South Atlantic and Gulf of Mexico regions would be done through the Council-process in those regions. This amendment includes a mechanism to specify ACLs for stock complexes and certain specific shark species as well as identify AMs, consistent with the Magnuson-Stevens Act requirements to establish a mechanism for specifying ACLs and AMs at a level that will prevent overfishing. The regulations necessary to adjust ACLs as needed and to apply AMs are currently in place. The DEIS explained NMFS' approach to reducing bycatch by working with the regional fisheries management councils responsible for those fisheries. In addition, NMFS has committed to ongoing monitoring and future evaluation of this issue. That discussion is included in Chapter 1 of the FEIS.

Comment 12: Some commenters noted that the shrimp industry has mandated TEDs and other bycatch reduction devices, and ask if there are other shrimp trawl bycatch reduction measures that can be implemented.

Response: NMFS agrees that the mandating of TEDs and other bycatch reduction devices have aided in the reduction of blacknose shark catches and other protected resources. Currently, NMFS is working with the GMFMC, SAFMC, and the shrimp industry to look at other ways to decrease the shark bycatch in the shrimp fishery. For the reasons stated in response to comment 11, NMFS has not made changes in the FEIS based on this comment.

### Quota Alternatives

Comment 13: NMFS should implement alternative A1, which calls for no action to the SCS commercial quota. This alternative is appropriate given the concerns on the science for blacknose and the range of alternatives. The Atlantic Large Whale Take Reduction Plan (ALWTRP) regulations eliminate gillnet fishing for 5 months a year (November to April), which should be positive for blacknose sharks. When the fishery opens in April and May, the blacknose sharks are within state waters, therefore, NMFS should not change anything and stay with the 5 month ALWTRP closure.

Response: The results of the 2007 SCS stock assessment determined that, despite the ALWTRP, blacknose sharks are overfished and overfishing is occurring. The assessment recommended a blacknose shark specific TAC and a corresponding rebuilding timeframe. One objective of this amendment is to ensure that fishing mortality levels for blacknose sharks are maintained at or below levels that would result in a 70 percent probability of rebuilding in the timeframe recommended by the assessment. Under the NS1 Guidelines, if a stock is overfished, NMFS is required to “take remedial action by preparing an FMP, FMP amendment, or proposed regulation...to rebuild the stock or stock complex to the MSY level within an appropriate time frame” (50 CFR 600.310(e)(3)(ii)). NMFS chose not to select the status quo alternative as the preferred alternative because it does not end overfishing or implement a rebuilding plan for overfished stocks as required by the Magnuson-Stevens Act. Based on further analysis of new data and public comment, NMFS changed the preferred SCS quota alternative from the DEIS to the FEIS. NMFS is now preferring alternative A6 which would have a non-blacknose SCS quota of 221.6 mt dw and a blacknose shark quota of 19.9 mt dw because it implements quotas necessary to rebuild and end overfishing of blacknose sharks. The preferred alternative, by allowing the gillnet fishery to continue, also mitigates some of the economic impacts that are necessary and expected and necessary in order to reduce fishing mortality as prescribed by the recent stock assessment. Thus, the preferred SCS quota and commercial gear alternatives strike a balance between positive ecological impacts that must be achieved to rebuild and end overfishing on depleted shark stocks while minimizing the negative economic impacts that would occur as a result of these measures.

While NMFS is obligated by the regulations published by the Council on Environmental Quality to identify its preferred alternative, the FEIS is not a decision document and the Agency retains the discretion to select any reasonable alternative evaluated in the FEIS, including the No Action alternative and alternatives A2, A3, A4 or A5. While NMFS has expressed a preference in the FEIS for alternative A6, the agency has made no final decision in this regard and will not do so until the final Agency review of the FEIS and other relevant documents and signs a Record of Decision selecting final alternatives.

Comment 14: NMFS received a number of comments indicating that gillnet fishermen can adapt their fishing techniques and gear to avoid catching blacknose sharks. Specific comments included: Did NMFS consider that fishermen can adapt and select on certain species?; gillnet fishermen can adapt to avoid catching blacknose sharks similar to

how they reduced turtle and marine mammal bycatch; strikenet gear is a clean gear and can be modified to avoid blacknose sharks; it is possible to design gillnet gear to eliminate blacknose shark catches; and NMFS should set aside Amendment 3 or go with status quo until more gear research can be conducted.

Response: Due to this comment, NMFS reviewed the 2005-2008 Shark Gillnet Observer Data. Based on this analysis, NMFS agrees that fishermen may be able to adapt and specifically target some species while avoiding others. The percentage of blacknose sharks in the catch from gillnet trips that were targeting other species were: 2.6 percent from 5 trips that targeted Blacktip sharks, 1.4 percent from 17 trips that targeted Atlantic Sharpnose sharks, 8.3 percent from 6 trips that targeted Bonnethead sharks, and 3.9 percent from 118 unspecified shark trips. NMFS used this information to re-analyze the SCS quota and commercial gear alternatives. Based on this analysis and public comment, NMFS is changing the preferred alternative to alternative A6, which would have a non-blacknose SCS quota of 221.6 mt dw and a blacknose shark quota of 19.9 mt dw. In addition, NMFS would not prohibit gillnets as an authorized gear type and would change the commercial gear preferred alternative to B1, the No Action alternative. If in subsequent analysis the data shows that shark fishermen have been able to avoid catching blacknose sharks, NMFS will re-evaluate the landings data, and increase the either, or both, the quota for non-blacknose SCS and the blacknose sharks., However, if a re-evaluation of the data shows that fishermen have not been able to minimize blacknose shark mortalities, then NMFS reserves the right to decrease either, or both, quotas. In response to this comment, NMFS made the changes described above to the FEIS including the identification of a preferred alternative to continue the use of gillnet as authorized gear for harvesting all Atlantic sharks.

Comment 15: NMFS received numerous comments on the proposed non-blacknose SCS quota. Several commenters were concerned that the non-blacknose SCS quota was too low particularly since these species stocks are healthy and are a viable alternative for fishermen. The low quota could result in high regulatory discards. The State of North Carolina noted that if NMFS reduced the non-blacknose SCS quota, North Carolina fishermen will be disproportionately impacted by this regulation by removing fair and equitable distribution of SCS quota and implementing measures contrary to measures in state waters. The State of South Carolina noted that the proposed quota of 56.9 mt dw for small coastal sharks will result in a 76 percent reduction in the landings of finetooth, Atlantic sharpnose and bonnethead sharks in the shark fishery. As such, this reduction in the quota for these three species would seem unwarranted at this time. Additionally, this proposed reduction will have significant repercussions among South Carolina's permitted commercial fisherman who landed 10 mt dw of these three species in 2008 or nearly 17 percent of the proposed quota for the Atlantic, Gulf of Mexico and Caribbean fisheries, combined. In addition, the small quota is likely to be reached and the fishery closed before South Carolina fishermen have an opportunity to land their traditional catch. For these reasons, NMFS should implement alternative A2 in combination with the gillnet prohibition, alternative B3.

Response: NMFS recognizes that the status of non-blacknose SCS is not overfished and not experiencing overfishing. In the DEIS, the preferred alternative, A4, would have set the commercial quota for non-blacknose SCS sharks at 56.9 mt dw, and the blacknose shark quota at 14.9 mt dw. Due to recent data updates, analysis, and public comments, NMFS has changed the preferred alternative from A4 to A6, which would set the commercial quota for non-blacknose SCS at 221.6 mt dw and the blacknose shark quota at 19.9 mt dw. The proposed non-blacknose SCS quota would set the commercial quota equal to the average non-blacknose sharks SCS landings from 2004 through 2008 and therefore would not have economic impacts beyond the status quo. By looking at the recent Gillnet Observer Data from 2005-2008 NMFS agrees that it appears that commercial shark fishermen can target non-blacknose sharks and avoid catching blacknose sharks. If in subsequent reviews of the management measures implemented under alternative A6, and commercial shark fishermen are able to minimize their catch of blacknose sharks, NMFS could increase the non-blacknose SCS quota to allow for greater access to these species. Also, any underharvest of the non-blacknose SCS quota from the previous year could be added to the quota the following year, because all of the shark species in this complex (Atlantic sharpnose, finetooth and bonnethead) are not overfished and overfishing is not occurring. NMFS recognizes that there may be a high mortality rate for the blacknose sharks released from the various gears used in the SCS fishery. NMFS is attempting to limit the discard mortalities of blacknose sharks in the SCS fishery associated with the proposed SCS quota, by allowing the commercial shark fishermen to retain the number of sharks equal to the average landings of blacknose sharks from all gears based on the 2004 – 2008 Coastal Fisheries Logbook and Shark Gillnet Observer Data. . In response to this comment, NMFS made the foregoing changes to the FEIS including the identification of a preferred alternative to establish a non-blacknose SCS quota at 221.6 mt dw and allow continued use of gillnet as authorized gear for harvesting SCS.

Comment 16: NMFS received several comments specific to the quota levels for blacknose sharks. Comments suggest that NMFS should prohibit the retention of blacknose sharks by placing the species on the prohibited list. Other commenters suggested that the blacknose shark quota needs to be high enough to allow for the retention of incidental catch. The State of Georgia supports alternative A4 quotas with alternative B3 gillnet closures as it will significantly reduce the impacts of regulatory discards of blacknose sharks, which would occur if the quota for blacknose sharks is reached before the non-blacknose SCS quota.

Response: NMFS agrees that the blacknose shark quota needs to be large enough for fishermen to keep blacknose sharks that are caught incidentally. As detailed in Chapter 4 and Appendix A, NMFS has changed their preferred alternative from A4 to A6. Under alternative A6, the non-blacknose SCS (221.6 mt dw) and blacknose shark (19.9 mt dw) quotas would allow for incidental catch of blacknose sharks. Also, under alternative A6, both the blacknose and the non-blacknose quotas would close when either quota reached, or was projected to reach, 80 percent. This offers an incentive to avoid blacknose sharks and target non-blacknose SCS to ensure that the non-blacknose SCS fishery does not close with quota still available. NMFS considered closing the entire

SCS fishery (alternative A5) however, the stock assessment did not warrant such action. Under the rebuilding plan, a limited number of blacknose sharks can be retained while still meeting rebuilding goals. Furthermore, once a species is placed on the prohibited list, fishery-dependant data on the species will cease to be reported and cannot be used in future stock assessments or management measure determinations. In response to this comment, NMFS made the foregoing changes to the FEIS including the identification of a preferred alternative to establish a blacknose SCS quota at 19.9 mt dw and allow continued use of gillnet as authorized gear for harvesting SCS. The DEIS already included an alternative to close the SCS fishery which would essentially prohibit retention of blacknose. Therefore, an additional alternative to list blacknose as a prohibited species was not added to the FEIS.

Comment 17: NMFS received several comments regarding the overlap of the SCS gillnet fishery with other gillnet fisheries in the southeast region. Comments included: the NMFS proposal will force effort into other fisheries (e.g., kingfish fishery) and this will fracture that other fisheries; NMFS needs to know the number of blacknose shark catches in the mackerel fishery and how that relates to the 22-percent mortality of blacknose shark by gillnets; if NMFS is taking the bulk of effort away, why not let mackerel fishermen keep blacknose sharks; NMFS should eliminate blacknose sharks landings and allow mackerel fishermen to land other SCS; and NMFS should collect data on discards in the mackerel fishery.

Response: NMFS recognizes that fishermen will adapt in different ways to new regulations placed on a fishery, which may include increasing their effort in other fisheries. NMFS plans to continue to collect the best available data from several sources including data on landings, discards, and bycatch. As this new data becomes available, regulation changes could be made that would provide fishermen access to resources that are ecologically and economically viable. Based on the most recent data, which indicates that gillnet fishermen may be able to avoid certain species, NMFS has changed their preferred alternative from B3, which would have eliminated gillnet gear as an authorized gear from South Carolina south, to B1, the No Action alternative, which retains gillnet as an authorized gear in the Atlantic Ocean, Gulf of Mexico, and Caribbean Sea. Also, under the new preferred alternative, A6, incidental catches of blacknose sharks will continue to be allowed. In response to this comment, NMFS made changes to the FEIS including the development of a preferred alternative that establishes a blacknose quota at 19.9 mt dw and a non-blacknose SCS quota at 221.6 mt dw. The DEIS already considered an alternative to close the entire SCS fishery which would essentially prohibit retention of blacknose. Therefore, an additional alternative to list blacknose as a prohibited species was not added to the FEIS. The discussion of displacing effort from the shark fishery into other gillnet fisheries was included in the FEIS. NMFS made changes in preferred alternative from the DEIS to the FEIS based on this and similar comments.

Comment 18: NMFS needs to move blacktip sharks back to the SCS quota and increase the quota for all SCS.

Response: NMFS is moving towards species-specific management, including species-specific quota. However, for some species NMFS has only limited data, which requires management to be based on species within a complex of species. The 2007 SCS stock assessment assessed the SCS complex as a whole as well as each species individually, and recommended using species-specific results rather than the aggregated SCS complex results. The assessment recommended a blacknose shark-specific TAC and a corresponding rebuilding timeframe. Therefore, based on these results, NMFS has removed blacknose sharks from the SCS quota and set a separate commercial quota for this species. A species-specific quota enables NMFS to closely monitor blacknose shark landings and fishing effort according to the rebuilding plan. Blacktip sharks are currently managed in the non-sandbar LCS complex implemented in Amendment 2 to the Consolidated HMS FMP. Blacktip sharks are more commonly caught with gear targeting LCS (i.e., BLL gear) rather than gear used to target SCS (i.e., gillnet gear). In addition, the blacktip shark stock assessment recommended that blacktip shark landings should not change or increase from historical catch levels. Placing blacktip sharks within the non-blacknose SCS quota could drastically reduce the blacktip shark regional quota since the non-blacknose SCS shark quota is being reduced in the preferred alternative from 454 mt dw to 221.6 mt dw. Therefore, at this time, NMFS is not placing blacktip sharks within the SCS complex. NMFS has determined that the comment proposes an action that does not meet the purpose and need set forth in the DEIS and FEIS and therefore did not include it as an additional alternative for evaluation in the FEIS.

Comment 19: NMFS stated that they want to help the U.S. fleet catch the entire tuna and swordfish quotas, so why is NMFS against SCS fisherman landing the SCS quota as appears to be the case in preferred alternative A4?

Response: In the DEIS, the preferred alternative A4, would have set the non-blacknose quota at 56.9 mt dw and the blacknose shark species-specific quota at 14.9 mt dw. Recent data, and the analysis of that data, has led NMFS to change the preferred alternative from A4 to A6. If alternative A6, the preferred alternative in the FEIS, is enacted, the non-blacknose SCS quota would be set at 221.6 mt dw, which is the average landings of non-blacknose SCS from 2004 through 2008. The blacknose shark species-specific quota would be set at 19.9 mt dw. These regulations are being considered because the status of the blacknose shark stock has been determined to be overfished, with overfishing occurring. Also, any underharvest of the non-blacknose SCS quota could be added to following years fishing quota, since the stock status of finetooth, Atlantic sharpnose, and bonnethead sharks have all been determined to be healthy. Also, under alternative A6, both the blacknose and the non-blacknose quotas would close when either quota reached, or was projected to reach, 80 percent. This offers an incentive to avoid blacknose sharks and target non-blacknose SCS to ensure that the non-blacknose SCS fishery does not close with quota still available. These measures maximize the opportunity to harvest the healthy non-blacknose SCS while rebuilding and preventing overfishing on the blacknose shark stock. This comment did not target any specific section or issue analyzed in the DEIS and a specific change in the FEIS was not made. As mentioned, however, the preferred alternative for non-blacknose SCS quota has been

adjusted in the preferred alternative between the DEIS and FEIS to address this general concern.

Comment 20: NMFS should save the SCS fishery. NMFS took 4,000 lb LCS trip limit away and are now taking away blacknose sharks. Are there any proposals for buyouts for SCS fishermen?

Response: Currently, there are no proposals to buyout SCS fishermen. Buyouts can occur via one of the three mechanisms, including: through an industry fee, via appropriations from the United States Congress, and/or provided from any State or other public sources or private or non-profit organizations. A buyout plan is not proposed in this amendment because the Agency is unable to implement a buyout as a management option. Buyouts must be initiated via one of the aforementioned mechanisms.

Comment 21: We believe the reductions in the commercial quota and the elimination of the gillnet gear will have significant, positive effects. Based on estimates taken before 2007, your analyses determined that this fishery was responsible for 45 percent of the mortality on blacknose sharks. The Gulf of Mexico shrimp effort was reduced by 74 percent from the average effort of 2001-2003. Because of this action, the historic 46 percent take by the trawl fishery would have already been reduced to about 12 percent of the total take. This reduction should, in combination with reductions from quota and gear alternatives, drive the estimates of total reductions in take by numbers of blacknose shark to something in excess of 80 percent, a value well above the target of 78 percent.

Response: NMFS is working with the GMFMC, and agrees that blacknose shark mortalities in the shrimp trawl fishery have dropped significantly due to decreased effort in the shrimp trawl fishery in the Gulf of Mexico. Based on 2005-2008 Shark Gillnet Observer Data, NMFS believes that gillnet fishermen may be able to effectively target other SCS species while minimizing the mortality of blacknose sharks and protected species. Because of this analysis, NMFS has changed their preferred alternative from B3, which would have eliminated gillnet gear from South Carolina south, to B1, the No Action alternative, which would retain gillnets as an authorized commercial gear type for sharks. Based on this same data, and because of reductions in blacknose shark mortalities in the shrimp trawl fishery, NMFS has also changed the preferred quota alternative from A4 to A6, which would create a non-blacknose SCS quota of 221.6 mt dw and a blacknose shark quota of 19.9 mt dw.

Comment 22: In the Gulf of Mexico, it might be possible to reduce juvenile mortality of blacknose sharks by adopting for shark bottom longlines, on a seasonal basis, the existing reef fish longline boundary (20 fathoms east of Cape San Blas, Florida, 50 fathoms west of Cape San Blas). If this eliminates too much of the traditional shark fishing grounds to be acceptable, than perhaps the “stressed area” boundary, which varies from 10 to 30 fathoms, could be considered.

Response: NMFS considered closing waters inshore of 20 fathoms in the Gulf of Mexico to shark bottom longline gear as a way to reduce fishing pressure on neonate and juvenile blacknose sharks. The majority of the recorded interactions with neonate and juvenile blacknose sharks occur in waters inshore of 20 fathoms. Therefore, by closing waters inshore of 20 fathoms, NMFS would relieve fishing pressure on neonate and juvenile blacknose sharks. However, closing waters inshore of 20 fathoms could have a large, negative socioeconomic impact on the shark BLL fishery in the Gulf of Mexico, as the majority of BLL sharks sets observed from 1994-2007 occurred inshore of 20 fathoms. Given these potentially large, social and economic negative impacts, and the ability to rebuild blacknose sharks through other alternatives, NMFS did not further analyze this alternative in the FEIS. Similarly, NMFS considered closing the waters inshore of 50 fathoms in the Gulf of Mexico to shark BLL fishing, however, because this closure would cover more area and have larger socioeconomic impacts than a 20 fathom line closure, this alternative was not further analyzed in the FEIS.

## **D.2 Commercial Gear Restrictions**

Comment 1: NMFS received numerous comments supporting the proposed alternative to ban gillnets in the shark fishery South Carolina south (alternative B3). The SAFMC and MAFMC both expressed support for the proposal to ban shark gillnet gear. The State of Georgia supports banning gillnet and states that removal of shark gillnet gear is long overdue to reduce incidental take of sea turtles and marine mammals. Other commenters stated that banning gillnet gear would protect blacknose sharks, and reduce bycatch and protected resource interactions.

Response: NMFS would like to thank the SAFMC, MAFMC, and the State of Georgia for submitting comments in support of alternative B3. Based on the 2005-2008 Shark Gillnet Observer Program data, and comments from fishermen; NMFS believes that gillnet fishermen may be able to target other SCS species, and minimize the mortality of blacknose sharks. For this reason, NMFS believes that banning gillnets as an authorized gear type is unwarranted at this time. NMFS would prefer to allow gillnet fishermen the opportunity to prove that they can target specific species, and avoid others. Therefore, NMFS has changed its preferred alternative from B3, which would have banned gillnets from South Carolina south, to B1, the No Action alternative, which would retain all currently authorized gears in the shark fishery. The current regulations for gillnet fishermen, which include two-hour net checks and keeping nets attached to the boat, should continue to help reduce the incidental bycatch of other species. The bycatch and discards of blacknose sharks would be reduced by the implementation of a smaller non-blacknose SCS and blacknose shark quota. The gillnet fishery in the southeast Atlantic Ocean is monitored by vessel monitoring systems (VMS) and has sufficient observer coverage. The VMS and observer coverage has helped protect endangered species like sea turtles and right whales. NMFS believes that allowing gillnet gear as an authorized gear for sharks is consistent with the 2008 Biological Opinion for the Atlantic Shark fishery. The 2008 Biological Opinion was completed for Amendment 2 to the Consolidated HMS FMP which did not prohibit the use of gillnet gear therefore the Biological Opinion was based on the continued use of gillnet gear in the Atlantic Shark fishery and concluded that 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, the BiOp concluded that Amendment 2 was not likely to adversely affect any listed species of marine mammals, invertebrates (*i.e.*, listed species of coral) or other listed species of fishes (*i.e.*, Gulf sturgeon and Atlantic salmon) in the action area. NMFS believes that the significant social and economic impacts on the SCS commercial shark participants from prohibiting gillnet gear are disproportionate to the ecological benefits especially since the No Action alternative in combination with alternative A6 reduces blacknose shark mortality to levels consistent with the rebuilding plan for this species.

Comment 2: The gear restriction on the shark gillnets from South Carolina to the Gulf of Mexico and the severe quota reduction of SCS will be detrimental to the critical scientific data that is needed to properly manage this fishery.

Response: NMFS agrees that prohibiting shark gillnet gear would affect the scientific data that is used to manage the SCS fishery. Based on this, and other public comments as well as additional data analysis using updated blacknose shark weight data, NMFS has changed its preferred alternative from B3 in the DEIS, which would have banned gillnets from South Carolina south, to B1 in the FEIS, the No Action alternative, which retains the current authorized gear types. NMFS feels that the scientific data collected from programs like the Shark Gillnet Observer Program provide an invaluable source of fishery dependent information that can augment fisheries independent data collected by NMFS scientists and help to inform fishery management decisions.

Comment 3: Contrary to popular beliefs, gillnet gear is the most selective way of fishing. Gillnet fishermen catch on average a 14.4 lb dw sexually, mature blacknose shark that have spawned at least once. The 2008 BiOp stated that shark gillnet fishermen do not catch as many protected species as bottom longline fishermen. The federal observer data has shown that 97.3 percent of our catch consists of sharks and 98.1 percent of the sharks caught were the targeted species. This gear is not having as big an impact on the stock because they are not catching juveniles. NMFS should consider a gillnet endorsement, not a preferred alternative that would close the fishery. In addition, The State of South Carolina commented that, although the retention of sharks taken by gillnets is already prohibited in their state waters, NMFS should be aware that South Carolina has licensed and permitted commercial fisherman who have historically fished for sharks with gillnets in Federal waters. These fishermen will certainly be impacted and possibly displaced from this fishery through adoption of this proposed action.

Response: In response to this and similar comments NMFS made the following changes between the DEIS and FEIS. The DEIS NMFS preferred alternative, B3, which would have prohibited gillnets from South Carolina south, but due to recent data and new data analysis and public input, NMFS has changed its preferred alternative in the FEIS to B1, the No Action alternative, which would retain gillnets as an authorized gear in the shark fishery. Based on recent data from the SEFSC, NMFS changed the average weight for blacknose sharks caught in gillnets from 14.4 lbs to 18.7 lbs in the FEIS. Also, NMFS re-analyzed the data from the 2005-2008 gillnet observer data. Those analyses showed

that gillnet fishermen may be able to target other SCS species, and minimize the mortality of blacknose sharks. NMFS used this information to re-analyze the SCS quota alternatives in the FEIS. This resulted in NMFS changing the preferred alternative from B3 in the DEIS, which would have eliminated gillnet as an authorized gear in the shark fishery from South Carolina south, to B1 in the FEIS, the No Action alternative, which will retain all currently authorized gears for SCS, including gillnets. In addition, NMFS is still working with the GMFMC to determine the impacts that TEDs have on excluding blacknose sharks from the shrimp trawl nets. NMFS believes that the new preferred alternatives would not displace the South Carolina gillnet fishermen in Federal waters.

Comment 4: There are large areas and times when gillnet fishermen are not allowed to fish. There is already a large gillnet closure area due to state water closures and the ALWTRP regulations. NMFS should work with the few shark gillnet fishermen left to address issues in the few areas where gillnets are being used now. There are not many shark gillnet fishermen left in the industry, and everyone is a seasoned fishermen with over 20 years of experience.

Response: NMFS agrees that gillnet gear is prohibited in many places, such as the state waters of Florida and Georgia and Southeast Right Whale Calving Area. Also, NMFS agrees that there are not many gillnet fishermen who target sharks. There are still gillnet fishermen that catch sharks while targeting other species and some of those fishermen could target sharks. NMFS has gathered all of the comments from gillnet fishermen and re-evaluated the data on the average size of blacknose sharks caught in the gillnet fishery in the FEIS. Based on this analysis, NMFS changed the average weight for blacknose sharks caught in gillnets from 14.4 lbs in the DEIS to 18.7 lbs in the FEIS. Also, the data from the 2005-2008 Shark Gillnet Observer Program seems to indicate that gillnet fishermen may be able to target other SCS species, and minimize the mortality of blacknose sharks. NMFS used this information to re-analyze the alternatives regarding quotas in the FEIS. The new preferred alternative in the FEIS, A6, would set a non-blacknose SCS quota of 221.6 mt dw and a blacknose shark quota of 19.9 mt dw. In addition, NMFS has changed their preferred alternative from B3 in the DEIS, which would have prohibited gillnets from South Carolina south, to alternative B1, the No Action alternative in the FEIS, which would retain gillnets as an authorized gear in the shark fishery.

Comment 5: If a prohibition on gillnet gear is implemented, what is going to stop NMFS from removing all gillnet gear in other fisheries, such as the mackerel fishery, in the future?

Response: In the DEIS NMFS preferred alternative, B3, which would have prohibited gillnets from South Carolina south, but due to recent data and new data analysis and public input, NMFS has changed its preferred alternative to B1, the No Action alternative, which would retain gillnets as an authorized gear in the shark fishery. In addition, this amendment only deals with management measures in the Atlantic shark fishery and any measures specific to the mackerel fishery would be implemented through the Regional Fishery Management Council that has authority for this species. This

comment does not call for change to any specific section of the DEIS. Therefore, no specific change was made in the FEIS in response to this comment.

Comment 6: NMFS received several comments on the use of VMS in the gillnet fishery. One commenter asked if gillnet fishermen would be compensated for VMS if gillnet gear is banned. Another commenter noted that gillnet boats should not have to carry VMS since it is an invasion of privacy and a waste of money to the fisherman and NMFS. Additionally, gillnet fishermen already have sufficient observer coverage. Another commenter noted that NMFS must place significant weight on protecting critically endangered right whales from entanglement and should therefore maintain the VMS requirement for all shark gillnet vessels.

Response: As described in above, NMFS has identified B1, the No Action Alternative as the preferred alternative, which would retain gillnets as an authorized gear type for the Atlantic shark fisheries. The requirements for VMS restrictions would continue under the current regulations. VMS is also vital to fisheries management, enforcement, and safety. VMS is an important tool used to monitor fishing activities in time/area closures and during the North Atlantic right whale calving season to protect this endangered species. NMFS has several other VMS requirements in place for HMS vessels including, BLL vessels in the vicinity of the mid-Atlantic shark closed area, and all vessels with PLL gear on board year-round. Removing VMS requirements is beyond the scope of the proposed action and does not the stated purpose and need. NMFS, therefore, did not include a change in VMS requirements from current regulations in the FEIS.

Comment 7: The State of South Carolina agrees with the proposed boundary for the prohibition for shark gillnet gear. In 2008, commercial fisherman in our state landed 20,000 lbs ww of smooth dogfish primarily from bottom long lines while 7,384 lbs ww of blacknose sharks were landed, with only 372 lbs ww of these reported from gillnets. In our state most catches of smooth dogfish occur in the winter when interactions with whales should be less likely.

Response: NMFS would like to thank the State of South Carolina for submitting information on the commercial fishing landings in their state waters. After reviewing the data from the 2005-2008 Shark Gillnet Observer Program which seems to indicate that gillnet fishermen may be able to target certain and avoid others; NMFS has decided to change the preferred alternative from B3, which would have banned gillnets from South Carolina south, to the No Action alternative, B1, which would continue to allow all of the current authorized commercial fishing gears for sharks, including gillnets. Smooth dogfish would be allowed to be landed with all current authorized gear types. The FEIS carries forward as a reasonable alternative available for selection by the decision maker, the ban on gillnet as an authorized gear in alternative B3.

Comment 8: NMFS received several comments regarding the overlap of the SCS gillnet fishery with other gillnet fisheries in the southeast region. Comments included: the NMFS proposal will force effort into other gillnet fisheries (e.g., kingfish fishery);

NMFS needs to know the number of blacknose shark catches in the mackerel fishery and how that relates to the 22 percent mortality of blacknose shark by gillnets; if NMFS is taking the bulk of gillnet effort away, why not let mackerel fishermen keep blacknose sharks; NMFS should eliminate blacknose shark landings, and allow mackerel fishermen to land other SCS; and, NMFS should collect data on discards in the mackerel fishery.

Response: NMFS recognizes that fishermen may adapt in different ways to new regulations placed on a fishery, which may include increasing their effort in other fisheries. NMFS continues to collect fishery-dependent and fishery-independent data from all federally managed fisheries including data on landings, discards, and by-catch. While the measures implemented in this amendment only pertain to the Atlantic shark fisheries, NMFS considers cumulative impacts on other fisheries and fishery participants when choosing preferred alternatives. Based on the most recent data, which indicates that gillnet fishermen may be able to target certain species with gillnet and avoid others, NMFS has changed the preferred alternative from B3, which would have eliminated gillnet gear as an authorized gear, to alternative B1 the No Action alternative which retains gillnet gear as an authorized gear in the Atlantic shark fishery. Also, under the new preferred alternative, A6, incidental catches of blacknose sharks will continue to be allowed. NMFS made changes in preferred alternative from the DEIS to the FEIS based on this and similar comments.

### **D.3 Commercial Pelagic Shark Effort Controls**

Comment 1: NMFS should prefer the No Action alternative C1. Shortfin mako sharks are underutilized and NMFS should not propose any measures.

Response: Based upon the 2008 ICCAT stock assessment for shortfin mako sharks, NMFS has determined that the North Atlantic population is experiencing overfishing. Under the Magnuson-Stevens Act, if NMFS determines that a fishery is overfished or approaching an overfished condition due to excessive international fishing pressure and there are no management measures to end such overfishing in an international agreement to which the United States is a party, it must take action at the international level to end overfishing (16 U.S.C. §§1854, 1854 note). The ICCAT stock assessment did not provide a recommended TAC or mortality reductions to prevent overfishing of shortfin mako sharks, making it difficult to set a quota or other limit to prevent overfishing. Because there are currently no ICCAT measures to end overfishing of shortfin mako sharks and U.S. shortfin mako shark landings have comprised approximately nine percent of international landings from 1997 through 2008, domestic reductions of shortfin mako shark mortality alone would not end overfishing of the entire North Atlantic stock. Therefore, NMFS believes that ending overfishing and preventing an overfished status would be better accomplished through international efforts.

Comment 2: NMFS received many comments regarding the minimum size alternatives for shortfin mako sharks (alternative C4). These comments included: in order to reduce the risk of overfishing of the shortfin mako, the EPA recommends including a measurable alternative, such as alternative C4a, along with preferred alternatives C5 and C6; there should be a minimum size limit restriction of 73 inch fork

length (FL) (185.4 cm FL) for the commercial harvest of shortfin mako with a retention limit of 3 fish per trip; the size limits for shortfin mako shark should be changed to 108 inches FL (274.3 cm FL) in the commercial fishery; there should be a 72 inch FL (182.9 cm FL) min size for recreational and commercial fisheries; since it is indicated that the commercial fishery lands so few shortfin mako sharks below the recreational minimum size, implementing that minimum size should have minor economic impact on commercial fishermen, yet would have a positive ecological impact on the shortfin mako stock; and NMFS should not establish a commercial minimum size for shortfin mako sharks as that management measure would present safety at sea issues.

Response: NMFS analyzed applying commercial size limits in the shortfin mako fishery according to the size at which 50 percent of males reach sexual maturity (22 in IDL; equivalent to 73 in FL) and the size at which 50 percent of females reach sexual maturity (32 IDL; equivalent to 108 in FL). Using data from pelagic longline (PLL) fishery observers and PLL logbook data, NMFS estimated the average number of additional shortfin mako sharks that would be released alive according to the proposed 22 in IDL and 32 in IDL size limits to be 89 and 5 shortfin mako sharks, respectively. Despite the potentially minimal economic impacts of imposing a commercial size limit for shortfin mako sharks, NMFS concluded that neither of the size limits would dramatically reduce shortfin mako shark mortality in the U.S. commercial fishery and that any mortality reductions would not be enough to end overfishing of this species. NMFS has decided to take action at the international level through international fishery management organizations to establish management measures to end overfishing of shortfin mako sharks. Based on the results of future ICCAT stock assessments of shortfin mako sharks, NMFS may revisit additional management measures for shortfin mako sharks as necessary.

Comment 3: NMFS received numerous comments in support of, and opposition to, the preferred alternative to work at the international level to end overfishing of shortfin mako (alternative C5).

Response: The United States commercial harvest of Atlantic shortfin mako sharks has historically been incidental in the PLL fishery. NMFS determined that the U.S. contribution to North Atlantic shortfin mako shark fishing mortality is relatively low in comparison to the total fishing mortality on the North Atlantic stock. According to ICCAT shortfin mako landings estimates, the United States contributed less than 9 percent ( $3262 \text{ mt ww} / 36,397 \text{ mt ww} = 8.6 \text{ percent}$ ) of the total North Atlantic shortfin mako shark fishing landings. Therefore, domestic reductions of shortfin mako shark mortality alone would not end overfishing of the entire North Atlantic stock, and NMFS has decided to take action at the international level through international fishery management organizations where countries that have large catches of shortfin mako sharks could participate in the establishment of management measures to end overfishing of shortfin mako sharks.

Comment 4: NMFS should take action domestically, such as removing shortfin mako sharks from the pelagic shark species complex and placing it on the prohibited shark species list (alternative C3).

Response: The U.S. commercial PLL fishery does not specifically target shortfin mako sharks and their harvest represents a small percentage of the overall fishing mortality for the North Atlantic shortfin mako shark stock. Moving shortfin mako sharks to the prohibited shark species list would increase the number of dead discards from the U.S. PLL fleet, as retention of shortfin mako sharks that come to the vessel dead would be prohibited. Additionally, reducing U.S. shortfin mako shark mortality alone would likely not be enough to end overfishing for this stock. For these reasons NMFS prefers the alternatives to work internationally to end overfishing of shortfin mako sharks, and to promote the live release of shortfin mako sharks domestically.

Comment 5: NMFS received comments stating that commenters are troubled by NMFS apparent belief that it need not implement strong measures to end domestic overfishing of shortfin mako because the bulk of catch occurs at the international level. Section 304 of the Magnuson-Stevens Act does not prevent NMFS from taking immediate action at the domestic level to prevent overfishing by U.S. vessels. Moreover, the Magnuson-Stevens Act section 303 specifies that all fishery management plans, including those applicable to species that are managed under international agreements, have effective ACLs and AMs by 2010 or 2011 unless the agreement specifies a different deadline. Nothing in the Magnuson-Stevens Act requires NMFS to avoid taking action on the domestic front simply because applying the required measure will not instantaneously or singlehandedly end overfishing. The United States must take a leadership role in ensuring the sustainable, scientific management of international fisheries, both by promoting these measures internationally and implementing them at home.

Response: There are several strict measures (e.g., landings quota, fins attached provision) that shortfin mako sharks are managed under domestically, and the United States is considered a leader in shark fishery management. Amendment 3 also includes mechanisms for AMs and ACLs for Atlantic sharks. NMFS believes that taking action at the international level through international fishery management organizations to establish management measures to end overfishing of shortfin mako sharks is the most effective way to end overfishing of shortfin mako sharks in the long term without causing significant economic impacts to domestic fishermen in the short term. Sections 102 and 304(i) of the Magnuson-Stevens Act encourage this approach, particularly for species approaching an overfished condition due to excessive international fishing pressure when there are no management measures to end overfishing under an international agreement to which the United States is a party. The shortfin mako shark is part of the pelagic species complex, which currently has defined criteria for MSY, OY, and status determination. NMFS has implemented measures that limit commercial harvest through quotas and trip limits for incidental permit holders that act as measures equivalent to ACLs and AMs, respectively. The 2008 ICCAT SCRS stock assessment did not recommend a TAC or necessary mortality reductions for shortfin mako sharks.

Therefore, it is difficult to determine appropriate catch levels that would help to stop overfishing or be overly restrictive to U.S. fishermen, putting them at a disadvantage compared to international fishermen. NMFS feels that international cooperation is essential at this time in order to determine the level of catch that would stop overfishing on the entire Atlantic stock.

Comment 6: NMFS received several comments regarding the proposed alternative to promote the live release of shortfin mako sharks (alternative C6). One commenter stated that about 90 percent of the shortfin mako sharks that are caught on longlines come to the vessel alive and asked how NMFS would promote the release of shortfin mako sharks. Another commenter questioned the effectiveness of this alternative and questioned the practicability of advising fisheries to release saleable sharks even though they may not be the target of the fisheries that are largely targeting swordfish and tuna. Another commenter stated they did not support alternative C6 because there is no evidence that the alternative will be successful especially given that NMFS recognizes that discards of shortfin mako sharks are rare because their meat is highly valuable. The State of Georgia commented that it is unclear how alternative C6 would impact the meat quality of the shortfin mako kept. Some commenters noted their support for alternative C6. One commenter stated that NMFS should promote the live release of shortfin mako sharks, but should not make it a requirement, and that it is common for the distant water fleet to release live sharks.

Response: According to the PLL observer program reports from 1992-2006, 68.9 percent of shortfin mako sharks are brought to the vessel alive and 30.1 percent come to the vessel dead. Live release of shortfin mako sharks would be voluntary under this action and could be promoted using current HMS outreach mediums (e.g., website, email listserv, mailings) along with others that have yet to be determined. This would allow NMFS to communicate the current status (overfishing occurring) of the North Atlantic shortfin mako shark stock in the hopes that fishermen will voluntarily reduce commercial fishing mortality to avoid a future change in stock status (overfished) that could lead to more restrictive measures. Because additional outreach efforts would likely be developed over time, NMFS is unable to predict how they will impact shortfin mako shark mortality in the commercial fishery. NMFS is unaware of any price differential between shortfin mako sharks that arrive at the vessel alive or dead, and this action is not expected to impact shortfin mako meat quality or ex-vessel prices.

Comment 7: NMFS received multiple comments regarding the shortfin mako stock assessment. Some commenters stated that the United States needs to perform a stock assessment domestically for shortfin mako sharks, separate from the ICCAT assessment. Other commenters asked who conducted the stock assessment and if it was done the same way as other shark stock assessments. One commenter stated that he is concerned with the doubling of the age of maturity and the length of life of the female shortfin mako, while the male shortfin mako did not seem to change in demographics much at all. Another commenter felt that the data used in the stock assessment is outdated and has been flawed for years now. NMFS does not use real time data such as

the 2009 season. The shortfin mako shark population has not changed drastically in the past 8 years.

Response: The North Atlantic shortfin mako shark stock assessment is conducted by the International Commission for the Conservation of Atlantic Tunas' (ICCAT) Standing Committee on Research and Statistics (SCRS) on an international level because of the highly migratory nature of the stock between international jurisdictions. The ICCAT stock assessment uses shortfin mako data from all reporting countries. Therefore, some of the data and assessment approaches used in the ICCAT SCRS shortfin mako shark assessment may differ from the data and approaches used in domestic shark assessments, which are conducted through the Southeast Data, Assessment, and Review (SEDAR) process. In either case, NMFS believes that the data and approaches used in these shark stock assessments represent the best available science. Any changes in shortfin mako size at maturity estimates occurred due to new scientific information, which is considered the best available science at this time.

#### **D.4 Recreational Measures for SCS**

Comment 1: NMFS should implement alternative D2 to modify the minimum size limit for recreationally caught blacknose sharks.

Response: Alternative D2 would modify the minimum recreational size for blacknose sharks based on their biology from 54 inches FL to 36 inches FL. The new restriction would lower the current minimum size for blacknose sharks and could lead to increased landings of blacknose sharks. In order to achieve the TAC recommended by the 2007 blacknose shark stock assessment, NMFS would need to reduce overall blacknose mortality. Since decreasing the minimum size for blacknose sharks could result in increased landings of blacknose sharks, NMFS does not prefer this alternative at this time. Alternative D2 remains a reasonable alternative carried forward for full consideration in the FEIS and remains available for selection by the Agency.

Comment 2: The State of South Carolina and others support the change in the recreational bag limit for Atlantic sharpnose shark from one per person per day, to two per person per day, particularly within the South Atlantic region (alternative D3). The Atlantic sharpnose was listed as not overfished with no overfishing occurring and the SCS quota has also been consistently under harvested in the South Atlantic region. Increasing retention limits for Atlantic sharpnose could mitigate the economic impacts of SCS quota reductions. NMFS has listed the Atlantic sharpnose as a readily identifiable species, and increasing their recreational bag limit should have no negative impact on sandbar, dusky, or blacknose sharks.

Response: NMFS thanks the State of South Carolina for submitting a comment and recreational catch data. Alternative D3 would increase the retention limit for Atlantic sharpnose sharks based on current catches and stock status. Based on the 2007 stock assessment for Atlantic sharpnose, the biomass for Atlantic sharpnose sharks is falling towards the maximum sustainable yield threshold. While the stock is not currently overfished or experiencing overfishing, the latest stock assessment suggests that

increasing fishing effort, such as increasing the retention limit of Atlantic sharpnose sharks, could result in an overfished status and/or cause overfishing to occur. Thus, since increasing the retention limit for Atlantic sharpnose could result in increased fishing effort and result in negative ecological impacts for the stock, NMFS prefers not to implement this alternative at this time. Alternative D3 remains a reasonable alternative carried forward for full consideration in the FEIS and remains available for selection by the Agency.

Comment 3: NMFS received numerous comments regarding the proposed alternative to prohibit the recreational retention of blacknose sharks (alternative D4). Commenters stated that few recreational fishermen target blacknose and since they rarely reach the 54 inch minimum size, Alternative D4 would likely have no impact. Some commenters were concerned that prohibiting the retention of blacknose sharks in the recreational fishery, while allowing retention in commercial fishery, equates to an allocation decision giving 100 percent of the quota to one sector. Other commenters stated that there was no reason recreational anglers should be allowed to retain a species that is overfished. The State of South Carolina commented that NMFS should implement alternative D4 because this action will provide additional protection for blacknose sharks in federal and state waters and help educate the public and fisherman as to the precarious status of the overall blacknose shark population. The State of Georgia does not support alternative D4 since the current size limits in place under the FMP already afford adequate protection for blacknose sharks. Georgia commented that NMFS should look at the recently enacted management of the coastal states relative to shark species and determine where the problems with recreational retention of blacknose sharks are occurring. Georgia supports alternative D1, which would be consistent with the state regulations to the maximum extent practicable. The State of Florida commented that NMFS should not prohibit the retention of blacknose sharks in the recreational fishery, and should, instead, work on other regulations to end overfishing of blacknose sharks. The state's current shark regulations provide conservation and management measures that permit a reasonable and sustainable annual harvest, while additional federal restrictions are not warranted for state waters.

Response: NMFS agrees that few recreational fishermen target blacknose sharks. Based on public comments and the fact that current recreational size limits afford adequate protection for blacknose sharks, the preferred alternative has been changed from alternative D4 in the DEIS which would have prohibited blacknose sharks to D1 in the FEIS, the No Action alternative which maintains the current recreational size and bag limits. NMFS would maintain the existing recreational retention limits for SCS. Recreational anglers are currently allowed one authorized shark per vessel per trip (including SCS). Also, they are allowed 1 bonnethead shark and 1 Atlantic sharpnose shark per person per trip. In addition, there is a recreational minimum size of 54 inches (4.5 ft) FL, which does not apply to Atlantic sharpnose or bonnethead sharks. Blacknose sharks rarely, if ever, reach 54 inches as a maximum size. NMFS believes that these current regulations would continue to provide adequate protection for blacknose sharks in the recreational fishery. However, it may be necessary to increase outreach to recreational fishermen on the identification of blacknose sharks so those that are caught

can be released in a manner that maximizes survival of this species. It may also be necessary to work with states to ensure consistent regulations and enforcement.

Comment 4: If NMFS prohibits the retention of blacknose sharks in the recreational fishery, how will this impact ASMFC member states?

Response: If NMFS adds a particular species to the prohibited species list, according to the ASMFC Interstate Coastal Shark FMP, the member states would need to implement management measures that would provide a conservation equivalency for blacknose sharks or states could decide to mirror NMFS regulations. However, in the DEIS, NMFS was not proposing to add blacknose sharks to the prohibited species list. Rather, in the DEIS, NMFS proposed not authorizing recreational possession of blacknose sharks. Thus, under the proposed management measure in the DEIS, ASMFC regulations would not be affected unless ASMFC took action to be consistent with federal regulations.

Comment 5: Recreational fishermen cannot reliably identify blacknose sharks. If the retention of blacknose sharks is prohibited in the recreational fishery, NMFS will need to implement an outreach program to educate recreational anglers.

Response: Based on public comments and the fact that current recreational size limits afford adequate protection for blacknose sharks, the preferred alternative has been changed from alternative D4 in the DEIS which would have prohibited blacknose sharks to D1 in the FEIS, the No Action alternative which maintains the current recreational size and bag limits. Currently, NMFS has recreational shark identification placards that categorize the differences between the recreational sharks. The placards can be attained on the HMS website (<http://www.nmfs.noaa.gov/sfa/hms/sharks/>) or by contacting the HMS division at 301-713-2347. In the future, NMFS could cooperate with states to increase identification of this species in state waters as a larger portion of the recreational catches of blacknose sharks occurs in state waters.

## **D.5 Recreational Measures for Pelagic Sharks**

Comment 1: NMFS received comments in support of the No Action alternative (alternative E1).

Response: Based on the 2008 ICCAT SCRS stock assessment for shortfin mako sharks, NMFS has determined that the North Atlantic population is experiencing overfishing. Under the Magnuson-Stevens Act, if NMFS determines that a fishery is overfished or is approaching an overfished condition due to excessive international fishing pressure and there are no management measures to end such overfishing in an international agreement to which the United States is a party, it must take action at the international level to end overfishing (16 U.S.C. §§1854, 1854 note). The ICCAT stock assessment did not provide a recommended TAC or mortality reductions to prevent overfishing of shortfin mako sharks, making it difficult to set a quota or other limits to prevent overfishing. Because there are currently no ICCAT measures to end overfishing of shortfin mako sharks and U.S. shortfin mako shark landings have comprised

approximately nine percent of international landings from 1997 through 2007, NMFS believes that taking action on an international level to end overfishing of shortfin mako sharks is necessary at this time.

The No Action alternative would allow the recreational harvest of one shortfin mako shark greater than 54 inches fork length per vessel per trip. The preferred alternatives to work on an international level to end overfishing and promoting the live release of shortfin mako sharks will not change the current recreational shortfin mako shark size or bag limits.

Comment 2: NMFS received several comments regarding the minimum size for recreational shortfin mako fishing (alternative E2). Comments included: Recreational limits for shortfin mako should be one fish per trip of any size; we are requesting a bag limit of two mako sharks and a minimum size of 72 inches FL (182.9 cm FL) - this minimum size should apply to all fishermen, recreational and commercial; NMFS should implement a realistic minimum size like the minimum length requirement of 66 inches (167.6 cm) in the Annual Mako Mania Tournament; and NMFS should adopt alternative E2b, which increases the minimum size for recreational fishers from 54 to 73 inches, fork length - this coupled with the preferred alternatives for shortfin mako management, represent an integrated strategy that will immediately reduce shortfin mako harvest while aspiring to make long-term, systemic changes in both international management of and domestic attitudes toward the shortfin mako fishery.

Response: Two size limits were analyzed for the recreational shortfin mako shark fishery based on the estimated size of sexual maturity of females (108 inches FL) and the estimated size of sexual maturity of males (73 inches FL). Large Pelagic Survey (LPS) data from 2004 to 2008 was used to estimate the impact of the proposed size limits on recreational shortfin mako shark landings from tournament and non-fishing tournament activities. This analysis found that 99.5 percent of all recreational landings fell under the proposed 108 inch FL size limit, and 60.3 percent of all recreational landings fell under the proposed 73 inch size limit. The 73 inch FL size limit would have a greater impact on non-tournament landings, as 81 percent of the non-tournament landings fell under the 73 inch size limit compared to 51.7 percent of the tournament landings. Implementing either of these size limits would reduce a large percentage of shortfin mako shark landings from a fishery that contributes a small percentage of the overall North Atlantic shortfin mako shark landings, would likely not end overfishing on the stock, and could have negative social and economic impacts. Therefore, NMFS believes that ending overfishing and preventing an overfished status would best be accomplished through development of management measures at the international level to be adopted and implemented by the United States and other nations.

Comment 3: NMFS received several comments, including from the State of South Carolina, in support of the proposed alternatives E3 and E4. Commenters felt that those measures should assist in overall shortfin mako recovery while not becoming overly burdensome to the U.S. sector of the fishery that is not chiefly responsible for the current stock status. However, NMFS also received several comments that did not support the

proposed alternative. These commenters noted that with recreational fishing tournaments actively targeting shortfin mako sharks, offering large prizes for their capture, and placing a high value on retaining them as trophies, it is difficult to see how promoting a voluntary live release measure will have any effect on the species' mortality. These commenters also note that shortfin mako sharks are highly valued, both as one of the few sharks generally deemed "edible" and as a recognized "trophy" to be weighed and displayed upon capture. Operators of for-hire vessels are unlikely to release a legal-sized mako over the objections of their fares. While a significant proportion of the recreational shark fishery is comprised of anglers who say they practice catch-and-release, exceptions to that general practice are often made when a shortfin mako is brought to boatside.

Response: NMFS agrees that working on an international level to reduce overfishing and promoting the live release of shortfin mako sharks is the best course of action to take at this time. Because the United States contributes very little to shortfin mako shark mortality in the North Atlantic, ending overfishing and preventing an overfished status may be better accomplished through international efforts with other countries that have large takes of shortfin mako sharks. NMFS believes that this action is appropriate at this time rather than implementing restrictive management measures unilaterally, which could unilaterally disadvantage U.S. fishermen. Promoting the release of shortfin mako sharks that are brought to the vessel alive, and the NMFS Code of Angling Ethics (64 FR 8067), could result in the reduction of fishing mortality of shortfin mako sharks and thus, have positive ecological impacts for this species. In promoting the live release of shortfin mako sharks, recreational fishermen will have the opportunity to reduce shortfin mako shark mortality with the intent to maintain the stock and avoid an overfished determination, which could lead to new restrictions on the U.S. recreational fishery. Outreach efforts will be developed over time, therefore, NMFS is unable to predict how they will impact shortfin mako shark mortality in the recreational fishery.

Comment 4: NMFS should implement alternative E5, prohibit landing shortfin mako sharks in recreational fisheries, or at least prohibit landings in fishing tournaments. NMFS acknowledges that shortfin mako sharks could meet two of the most important of the four criteria that lead to being listed as a prohibited species (i.e., there is sufficient biological information to indicate the stock warrants protection and the fact it resembles other prohibited species). NMFS has rejected this alternative simply because it would have a significant effect on commercial fishery revenue (over a quarter of a million dollars annually) and it would inhibit expansion of the pelagic longline fleet. Further, NMFS speculates that prohibiting retention could result in increased dead discards. This rationale is inadequate.

Response: Placing shortfin mako sharks on the prohibited species list would result in a recreational catch and release fishery for this species. NMFS decided not to prohibit landing of shortfin mako sharks in the recreational fishery because of the small numbers of shortfin mako sharks landed in the recreational fishery in comparison to international landings, prohibiting the possession of U.S. caught shortfin mako sharks is unlikely to end overfishing on the stock, and given the importance of shortfin mako sharks in recreational fishing tournaments. If shortfin mako are prohibited in the commercial fishery, increases in dead discards mainly apply to the commercial PLL fleet,

where over 30 percent of shortfin mako caught are dead at haulback. In the recreational fishery, post-release mortality rates for shortfin mako sharks are generally believed to be low when injuries from hooking and releasing the shark are minimized, therefore, NMFS would not anticipate a significant increase in dead discards with a recreational shortfin mako shark retention prohibition. NMFS believes that the preferred alternatives to work internationally to end overfishing of shortfin mako sharks, and to promote the live release of shortfin mako sharks domestically are adequate at this time.

Comment 5: The EPA notes that the DEIS is unclear regarding the impact of shortfin mako shark landings attributed to the recreational fishery in comparison to landings from the commercial fishery. Alternatives E2a and/or E2b, which are similar to the commercial size limit alternatives, should be preferred, since an increase in size limits could have significantly positive ecological impact upon this species and would lead to a large majority of the recreationally caught shortfin mako sharks to be released alive.

Response: In the DEIS, NMFS calculated average annual recreational shortfin mako shark landings from ICCAT estimates from 1981 to 2007. Because there were no ICCAT landings estimates available for the commercial shortfin mako shark fishery from 1981 to 1991, the impact of the recreational fishery on shortfin mako shark mortality may have been inflated. In the FEIS, NMFS compares recreational and commercial ICCAT estimates of shortfin mako shark landings over years where data for both fisheries are available (1992-2008). This analysis shows that shortfin mako shark landings from the U.S. commercial (109,611 sharks landed) and recreational (110,256 sharks landed) fisheries are similar over that time series. Implementing the size limits proposed in Alternatives E2a or E2b will reduce a large percentage of shortfin mako shark landings from a fishery that contributes a small percentage of the overall North Atlantic shortfin mako shark landings. Therefore, implementing size limits would unnecessarily disadvantage U.S. fishermen in relation to those from other countries who also contribute to shortfin mako shark mortality. NMFS believes that ending overfishing and preventing an overfished status would best be accomplished through development of management measures at the international level to be adopted and implemented by the United States and other nations.

Comment 6: NMFS received a comment that asked about the post release survival for shortfin mako sharks.

Response: Scientific studies have not been conducted regarding the post-release survival of North Atlantic shortfin mako sharks caught in U.S. commercial or recreational fisheries, therefore, it is currently unknown for these fisheries. A study by Hight et al. 2007, estimated the post-release survival of shortfin mako sharks caught on PLL gear at approximately 80 percent. This research was conducted in the Pacific Ocean off of California using different gear (J hooks) and shorter soak times (~3 hours) than in the U.S. Atlantic PLL fishery. Therefore, it may be representative of the post-release survival of North Atlantic shortfin mako sharks caught in the U.S. Atlantic PLL fishery. In the recreational fishery it is believed that post-release survival is very high, especially

when injuries from hooking and releasing the shark are minimized and fishermen release sharks in a way that maximizes their survival.

Comment 7: NMFS says that the U.S. catch proportion is less than 10 percent. Last year, the data was extrapolated and the range was between 4-5 percent. If that is correct, NMFS is overstating the relevancy of the U.S. catch to the entire Atlantic-wide mortality. The United States is not a big player in the shortfin mako shark fishery. Canada and Spain will determine the fate of shortfin mako sharks at ICCAT.

Response: The proportion of U.S. shortfin mako shark catch referred to in the DEIS was calculated from estimated commercial shortfin mako shark landings and discards reported to ICCAT from 1997 to 2008, which is approximately 9 percent of the Atlantic-wide shortfin mako shark landings over that time period (3431 mt ww / 39,769 mt ww = 8.6 percent). This indicates that the United States contributes a small proportion to the overall fishing mortality on the North Atlantic shortfin mako shark stock.

Comment 8: Several commenters felt that the proposed alternatives would close the shortfin mako recreational fishery.

Response: NMFS considered five alternatives for pelagic sharks in the recreational fishery, and only one, adding shortfin mako sharks to the prohibited species list, would prohibit recreational landings of shortfin mako sharks. The preferred alternatives, working on an international level to end overfishing and promoting the live release of shortfin mako sharks, will not prohibit landings of shortfin mako sharks or close the recreational fishery.

## **D.6 Smooth Dogfish**

Comment 1: NMFS received several comments in support of the No Action alternative (alternative F1), mirroring ASMFC smooth dogfish regulations. For example, the State of North Carolina opposed the preferred alternative F2, and supported alternative F1 under the smooth dogfish management measure. The State of Virginia and other commenters support Alternative F1 as their preferred option, but could also support Alternative F3. The State of Virginia believes Addendum I to the ASMFC Coastal Shark FMP is a compromise between the ease of species identification for Law Enforcement and the need by the commercial fishery to completely process smooth dogfish at sea due to their rapid spoilage. The State feels that the current ASMFC management regime for smooth dogfish should allow NMFS to take no action at this time (alternative F1) or to add smooth dogfish under NMFS management and mirror the provisions of the ASMFC Interstate Shark FMP (alternative F3). Similarly, the MAFMC supports the No Action alternative (alternative F1) since the fishery is not a growth fishery and landings have been stable. The MAFMC also commented that if no action (alternative F1) is selected, the Council would support requesting ASMFC to adopt mandatory dealer reporting requirements and establish a quota consistent with alternative F2a3. The MAFMC also noted that if NMFS determines that it will implement federal management, then as a secondary choice the MAFMC supports alternative F3 for smooth dogfish.

Response: Because smooth dogfish is not currently a federally managed species and fishery data reporting is not required, catch, effort, and participant data are sparse. These smooth dogfish data limitations have led to an unknown stock status and an unknown condition of the fishery. One way to rectify these shortcomings and to abide by the Magnuson-Stevens Act mandate to prevent overfishing while achieving optimum yield, is to bring smooth dogfish under federal management. Achieving the Magnuson-Stevens Act mandate will require the collection of smooth dogfish fishery data to perform stock assessments and effort estimates. NMFS chose not to prefer the No Action alternative (Alternative F1) because maintaining the status quo would perpetuate the unknown condition of the fishery. Furthermore, because the resource is available along most of the eastern U.S. coasts and there is a market for the product, smooth dogfish effort could increase as other fisheries become more constrained.

NMFS chose not to prefer Alternative F3, mirroring the ASMFC smooth dogfish measures, because the ASMFC plan contains some provisions that NMFS cannot implement and does not include others that NMFS must implement. On May 6, 2009, the ASMFC approved a smooth dogfish Addendum to the Atlantic Coastal Sharks FMP for public comment. Included within this Addendum is an exception for smooth dogfish to allow at-sea processing (*i.e.*, removal of shark fins while still onboard a fishing vessel), removal of recreational retention limits for smooth dogfish, and removal of the two hour net-check requirement for shark gillnets. The at-sea processing would require a five-percent fin to carcass ratio, but would allow for the removal of fins at sea. The allowance for the removal of shark fins while still onboard a fishing vessel and the removal of the two hour net-check requirement differs from current federal regulations for other shark species. NMFS considers the requirements for gillnet checks and maintaining shark fins naturally attached through offloading to be important to minimize impacts on protected resources and to prevent shark finning, respectively. NMFS recently implemented the fins attached regulation for all Atlantic sharks for enforcement and species identification reasons and does not favor creating a potential loophole that could hinder enforcement. In addition, ASMFC has not established a quota or a permitting requirement for the smooth dogfish fishery. As noted above, NMFS is required to establish ACLs and AMs under the Magnuson-Stevens Act and believes that permitting is the first step to gaining information about the fishery. Thus, NMFS is not preferring to mirror the ASMFC regulations at this time. Nonetheless, if NMFS implements alternative F2, NMFS would delay implementation of the management measures until the beginning of the smooth dogfish season in 2012 and in the interim, continue to work with ASMFC and the MAFMC to ensure federal and state regulations are consistent to the extent practicable.

Requiring that fins remained naturally attached to the smooth dogfish carcass is important to NMFS for several reasons: to facilitate species identification; to maintain consistency with other shark regulations that require the fins remain attached while keeping the carcass essentially whole; and to maintain consistency with the United States' international shark conservation and management positions. Identifying all sharks to the correct species is a vital step in vessel and dealer reporting. These reports are used to monitor catch levels in relation to quotas and to advise stock assessments. When ASMFC implemented their regulations allowing the removal of smooth dogfish fins during certain seasons, they only considered the potential overlap in species distribution

between sandbar and smooth dogfish. They did not consider the potential overlap with many other species of sharks that NMFS manages including SCS and spiny dogfish and the potential for misidentification with these species. NMFS heard during the proposed rule comment period that participants in the smooth dogfish fishery fully process the fish into “logs” or fillets of meat at sea. Identifying the species of fully processed carcasses from cuts of meat is very difficult. For this reason, for a number of years before requiring fins be attached in 2008, NMFS had prohibited the filleting of sharks at sea and required all sharks be landed as logs. In the 2006 Consolidated HMS FMP, NMFS took a further step of requiring the second dorsal and anal fin be maintained on the dressed carcass. Furthermore, the ability to identify both carcasses and fins to the species level is critical for enforcing the prohibition on shark finning for all federally managed Atlantic shark species. The most effective way for fishermen, dealers, and enforcement to properly identify both fins and carcasses is to require fins remain naturally attached through offloading. Detached smooth dogfish fins can be difficult for most people to differentiate from other shark fins. Differentiating numerous detached smooth dogfish fins from other shark fins can be inefficient and impractical from an enforcement perspective, particularly in a high volume fishery.

All sharks currently managed by the Secretary (large coastal sharks, small coastal sharks, and pelagic sharks) must be landed with fins naturally attached. Deviating from this measure in the smooth dogfish fishery would introduce management inconsistencies and potential enforcement loopholes. The fins naturally-attached regulation is also consistent with the U.S. international position on shark conservation and management. Globally, shark finning is a serious threat to many shark species. The United States has co-sponsored fins attached proposals and supported an international ban on the practice of shark finning and has recently proposed adding several species to the CITES Appendix II listing to aid in monitoring shark fin trade. An effective method to enforce this ban, particularly in areas lacking enforcement resources, is to require fins remain naturally attached to the shark carcass through offloading. In addition to this requirement, the United States also encourages maintaining the five percent fins to carcass ratio. The five percent fin to carcass ration is a critical tool for dockside enforcement when enforcement officers are unable to monitor an entire offload, and enhances shark conservation efforts by allowing NOAA to utilize dealer landing records to detect potential shark finning violations post-landing for subsequent follow-up investigation. If domestic exemptions to the fins naturally attached regulation were implemented, it could undermine the United States’ international position on the fins naturally attached policy and other shark conservation and management measures.

While NMFS is obligated by the regulations published by the Council on Environmental Quality to identify its preferred alternative, the FEIS is not a decision document and the Agency retains the discretion to select any reasonable alternative evaluated in the FEIS, including the No Action alternative and alternative F3. While NMFS has expressed a preference in the FEIS for bringing smooth dogfish into federal management and establishing a permitting process, the agency has made no final decision in this regard and will not do so until the final Agency review of the FEIS and other relevant documents and signs a Record of Decision selecting final alternatives.

Comment 2: Several commenters asked what would happen if NMFS decided not to implement management actions (alternative F1). They asked if it would mean that the ASMFC would be the sole managers of smooth dogfish.

Response: Whether NMFS decided to implement management measures or not, ASMFC regulations would not apply in federal waters. The jurisdiction of ASMFC management plans only includes state waters, and the absence of a federal management plan would not extend ASMFC's jurisdiction. While smooth dogfish are not currently managed at the federal level, there are federal regulations in place that apply to smooth dogfish fishing in the EEZ, including the Shark Finning Prohibition Act. This Act prohibits landing shark fins without the corresponding carcass and in excess of 5 percent of the carcass weight. If NMFS decides not to implement management measures, these federal regulations will still apply. This comment did not require any revision in the FEIS.

Comment 3: NMFS received comments supporting the proposed alternative (alternative F2), which would implement management measures in the smooth dogfish fishery. Several commenters noted that this alternative would also require issuance of federal permits, which are essential in remedying the serious deficiencies in data and would lead to better stock assessments. The preferred alternative of federal management has the added benefit of obtaining dealer reports and providing for federal fishery observers aboard vessels targeting dogfish. The State of Georgia supported the proposed alternative and noted that as ASMFC has recognized the importance of smooth dogfish, it is only fitting that NMFS should also consider responsible management of this species in federal waters.

Response: NMFS believes that implementing federal management measures, should the species be brought under NMFS management, would be an important first step in meeting its Magnuson-Stevens Act mandate to prevent overfishing while achieving, on a continuing basis, optimum yield. Achieving this mandate would require the collection of smooth dogfish fishery data to perform stock assessments and effort estimates. Federal permits, dealer reporting, and on board observers would provide valuable participant information and better characterize the nature of the fishery. The ASMFC's action to include smooth dogfish in the coastal shark management plan is further indication of emerging awareness that the species is in need of management measures. Due to the highly migratory nature of smooth dogfish and its large range, it would provide a positive ecological benefit across their range regardless of political boundaries. The DEIS identified alternative F2 as the preferred alternative and no change was made in the FEIS except that the implementation of the measures under the preferred alternative would be delayed until the beginning of the smooth dogfish fishing season in 2012 to allow time for fishery participants to adjust to the new requirements.

Comment 4: NMFS received many comments specific to the five percent fin to carcass ratio for smooth dogfish, including that the 5 percent ratio is too low and that the ratio should be closer to 10-12 percent. The MAFMC commented smooth dogfish are

unique in their fin to carcass ratio. They have two dorsal fins that are large enough to retain and sell. The carcasses are typically sold with the napes removed, rather than split, which significantly reduces the weight basis of the carcass and increases the fin to carcass ratio. The fins are removed with a straight cut, rather than the crescent cut required for other shark fins, thereby increasing its weight and the fin to carcass ratio. As a result, the fin to carcass ratio for smooth dogfish is typically 9 to 10 percent if the two pectoral fins and two dorsal fins are retained. The tails are not typically retained due to their low value, but if they are retained, the total fin weight increases to 13 to 14 percent.

Response: On December 21, 2000, the Shark Finning Prohibition Act (PL 105-557) (Act) was signed into law. The Act established a rebuttable presumption that any shark fins landed from a fishing vessel or found on board a fishing vessel were taken, held, or landed in violation of the Act if the total weight of shark fins landed or found on board exceeded five percent of the total weight of shark carcasses landed or found on board. It was implemented by NMFS through a final rule released in February 11, 2002 (67 FR 6124). Thus, any changes to the five percent ratio would have to be modified by Congressional actions. NMFS does not have discretion to selectively implement the five percent fin to carcass ratio in certain shark fisheries. Furthermore, difficulty in abiding by the five percent fin to carcass ratio further supports NMFS' requirement that all smooth dogfish fins remain naturally attached to the carcass through offloading. Keeping the fins naturally attached to the carcass through offloading makes it easier for fishermen to comply with the Shark Finning Prohibition Act. In order to help fishermen document that sharks were landed with their fins attached NMFS modified the dealer reporting forms so that it can be clearly documented that the sharks were landed with fins attached. NMFS did not add an additional alternative to the FEIS to seek a change in legislation in response to this comment.

Comment 5: The MAFMC encourages NMFS to address Section 307 (1) (P) of the Magnuson-Stevens Act as it relates to the smooth dogfish fishery, and suggests exploring a Letter of Authorization for the fishery addressing the rebuttable presumption clause. The smooth dogfish fishery fully utilizes the carcasses, so there is no conservation purpose served for this species by the five percent limit fin to carcass ratio.

Response: Section 307(1)(P) of the Magnuson-Stevens Act states that “[i]t is unlawful (1) for any persons to... (P)(i) remove any of the fins of a shark (including the tail) and discard the carcass of the shark at sea; (ii) to have custody, control, or possession of any such fin aboard a fishing vessel without the corresponding carcass; or (iii) to land any such fin without the corresponding carcass.” The section continues that “[f]or the purposes of subparagraph (P) there is a rebuttable presumption that any shark fins landed from a fishing vessel or found on board a fishing vessel were taken, held, or landed in violation of subparagraph (P) if the total weight of shark fins landed or found on board exceeds 5 percent of the total weight of shark carcasses landed or found on board.”

As noted in the previous response, NMFS has no discretion in selectively implementing the five percent fin to carcass ratio in certain shark fisheries, therefore, NMFS cannot issue Letters of Authorizations to exempt fishermen from complying with

the Magnuson-Stevens Act and statutory requirements of the five percent fin to carcass ratio.

Comment 6: NMFS received comments specific to the proposed requirement that smooth dogfish fins remain naturally attached to the carcass (alternative F2) including: NMFS must require that smooth dogfish be landed with their fins naturally attached since allowing an exemption for smooth dogfish will undermine the overall management and protection of sharks. NMFS also received comments opposed to the actions including: the fins attached requirement will end the commercial smooth dogfish fishery and would have no conservation value for smooth dogfish; requiring fins remain naturally attached to the carcass in the summer will reduce the meat quality because fishermen will have to remove the fins in 95 degree heat while on the dock; requiring fins remain naturally attached to the carcass will cause the meat to spoil faster; NMFS stated that their intention was not to change the fishery, but all the proposed requirements, particularly requiring fins remain naturally attached, will change the fishery; NMFS should adopt a rule that mirrors the provisions approved by the ASMFC, which requires that the smooth dogfish fins need not be landed attached, except for the dorsal fin during the months of July through February; and, the fishery is a 98 percent directed fishery, with little or no by-catch of other shark species. The State of South Carolina recommends that NMFS consider allowing permitted commercial shark fisherman to process and remove fins from smooth dogfish at sea, with the exception of the 1st and 2nd dorsal fins. This would allow these landed sharks to be differentiated from other species, including sandbar sharks. The MAFMC commented that smooth dogfish flesh is uniquely soft and translucent, and is singular among shark species in its tendency to discolor if the fish is not promptly bled, thoroughly rinsed to remove any remaining blood, and iced. This unique attribute of the fish requires at-sea processing. The fins and tails have always been removed and, in some cases, the backs and fins are sold to different customers. Requiring the fins and tails to remain attached would substantially impede the bleeding and cleaning process that is essential to preventing discoloration and preserving the quality of the fish.

Response: The FEIS (Section 4.3) acknowledges and considers the concerns raised in this comment with respect to potential difficulties resulting from the inability to completely process smooth dogfish at sea. However, were NMFS to assume management responsibility of the federal smooth dogfish fishery, it would require that fins remain naturally attached to the carcass to facilitate species identification, and to prevent exceptions to the federal prohibition on shark finning. The requirement would also maintain consistency across all Secretary of Commerce managed shark species in the Atlantic Ocean, Gulf of Mexico, and Caribbean Sea and would reflect the U.S. international position regarding shark conservation. While the fins naturally attached requirement would apply to federal smooth dogfish fishing permit holders regardless of fishing location, the intent of the measure would not be to obviate the ASMFC measures, as suggested in one of the comments. The ASMFC and NMFS operate under different mandates, jurisdictions, and contexts (domestic and international). These differences sometimes result in, and can necessitate, different management measures.

NMFS' intention, when implementing smooth dogfish management measures, would be to minimize alterations to the fishery. Additionally, NMFS would delay the effective date of the management measures under the preferred alternative until the beginning of the fishing season in 2012 to allow fishermen and dealers time to adjust to the new requirements. Smooth dogfish management measures would not be implemented until the 2011 fishing season, and NMFS believes that the methods and techniques employed in other shark fisheries can be adopted in the interim. However, the practices currently employed in the fishery are sometimes in conflict with NMFS' shark conservation position and Congressional mandates. As noted in several of the comments above, requiring smooth dogfish fins to remain naturally attached to the carcass differs from the current practice in the fishery. As described in the response to a comment above, NMFS deemed that maintaining a fins-attached requirement would be critical for several reasons: 1) to facilitate species identification, 2) to maintain consistency across all federally managed shark species, and 3) to maintain consistency with the U.S. and NMFS international position with regard to shark conservation and management. A potential NMFS requirement to land smooth dogfish with fins naturally attached would not prohibit at-sea processing methods currently in place in most other Atlantic shark fisheries that maximize meat quality, freshness, and processing efficiencies. It would remain legal to remove the shark's head and viscera for proper bleeding. To reduce dock-side processing needs, all fins could be partially cut at the base and only left attached via a small flap of skin. NMFS did not add an additional alternative to the FEIS to seek a change in legislation in response to this comment.

Comment 7: NMFS received comments regarding the proposed quota for smooth dogfish (alternative F2a3). Numerous commenters stated that the proposed quota was too high for a species lacking a stock assessment and that has been categorized as near threatened by the International Union for the Conservation of Nature (IUCN). NMFS also received numerous comments stating that the proposed quota is too low such as: in the early 1990s, Virginia alone caught over a million pounds and North Carolina or New Jersey could easily take the proposed quota themselves in the next year or two without increasing effort. The amount of take in the fishery depends on whether the fish are available when the fishermen go out. The quota needs room for growth since there are a lot of fishermen targeting smooth dogfish. Several commenters stated that the data used to determine the quota were flawed since a lot of people are not reporting on the vessel trip reports (VTRs) and that NMFS needs to look at all sources and geographic regions (including the Gulf of Mexico) of mortality including trawl gear. NMFS also received comment that the Service should not set a smooth dogfish quota the first year and should set quota the second year based on landings data. The State of Virginia commented that the absence of a statistically sound time series of landings or any type of analytical stock assessment for smooth dogfish makes this quota alternative impractical. Quota-based management requires some current information on the status (biological) of the stock. The State of Virginia also noted that there are approximately twelve commercial fishermen that land in excess of 500 pounds of smooth dogfish during any one year from 2004 through 2008 in Virginia. For the five year period of 2004 through 2008, Virginia's smooth dogfish harvest totaled 2,316,648 pounds. A total of 1,140,809 pounds were harvested from state waters (49.2 percent) and 1,175,839 pounds from federal waters (50.8 percent). The State of South Carolina supports federal management

of smooth dogfish and the proposed method of determining the annual commercial and recreational landings, plus the addition of 6 mt ww of smooth dogfish to the present 60 mt ww quota for all sharks collected in exempted fishing programs. The State of Georgia supports the quota limit for the smooth dogfish fishery, since the logic used to calculate the quota appears sound at this time. The MAFMC states that NMFS commercial landings data shows zero smooth dogfish landings from Virginia for 1996, while greater than 500,000 lbs are known to have been purchased by a single Virginia dealer in that year. The MAFMC recommends that the collection of fishery data through mandatory logbook reporting be initiated as soon as possible if federal management is taken. The data collection will help develop a stock assessment.

Response: The Magnuson-Stevens Fishery Conservation and Management Reauthorization Act (P.L. 109-479) amended National Standard 1 of the Act to require the establishment of Annual Catch Limits (ACLs) and Accountability Measures (AMs) in federally managed fisheries. The mechanism by which this requirement is applied to shark fisheries is detailed in Chapter 1 of the FEIS for Amendment 3, including the necessity to establish an annual commercial quota. Despite sparse smooth dogfish landings reports and the lack of a stock assessment, establishing an annual quota would be a condition of bringing the species under federal management under the Magnuson-Stevens Act.

Inline with the intention to minimize changes to the fishery, NMFS proposed to establish a quota that would allow current exploitation levels of smooth dogfish to continue. Although some changes to fishery would be necessary as noted above (e.g. fins naturally attached), the primary goal of the smooth dogfish portion of this amendment is to characterize and collect data on the fishery. This goal necessitates a quota near actual exploitation levels. Due to the lack of reporting requirements in the fishery, NMFS relied on available data to estimate current landing levels. Despite the lack of management, many fishermen in the mid-Atlantic region have been reporting their landings. Some of these fishermen have federal permits for other species and are required to report all landings, including smooth dogfish, due to the regulations in those other fisheries. Other fishermen do not have federal permits and report smooth dogfish landings voluntarily. These landings, and the number of vessels reporting these landings, have remained fairly constant since the late 1990s. Existing sources, particularly the Atlantic Coastal Cooperative Statistics Program (ACCSP) for commercial catches across all gear types, offer insight into the current state of the fishery. NMFS used ACCSP data to estimate current landing levels and then used this estimate to establish an annual quota. In the DEIS, NMFS proposed a quota equal to the maximum annual landings between 1998 and 2007 plus one standard deviation in the ACCSP data. Setting the quota higher than maximum reported landings was intended to account for what NMFS believes to be significant underreporting due to the lack of smooth dogfish reporting requirements. During the public comment period, however, NMFS received numerous comments that the proposed quota does not adequately account for underreporting. Several states provided state data that also indicated the sources NMFS used may be underreporting actual landings. Based on these comments and Southeast Fishery Science Center (SEFSC) advice, NMFS has decided to deviate from the preferred alternative in the DEIS and to identify alternative F2a4, the quota equal to the annual maximum landings plus

two standard deviations, or 715.5 mt dw (1,577,319 lbs dw), as the preferred alternative in the FEIS. NMFS believes that setting the quota at a level that accounts for current landings does not threaten smooth dogfish stocks. A review of the reported landings does not indicate any declining trend, and as noted by one of the commenters, the average size of landed smooth dogfish is increasing. Based upon these data and this observation, there is no indication that the smooth dogfish stock is unhealthy. The IUCN status appears to be based upon the fact that smooth dogfish have an unknown stock status. The IUCN description of smooth dogfish notes that there is no stock assessment for the species. Regardless, NMFS does not rely on IUCN statuses when developing management measures, but rather uses peer-reviewed stock assessments and primary literature. Smooth dogfish landings have been stable since the mid-1990s and there is no indication of stock declines. Once more data is gathered on this species a stock assessment could be completed. If the species were brought under federal management, NMFS would reassess the quota at that time and make any necessary changes.

Comment 8: NMFS received several comments relating to the set-aside quota for research on smooth dogfish. One commenter noted that Alternative F2b1 provides for a “set-aside” quota for an exempted fishing program. It is appropriate for NMFS to establish this set-aside, though clearly this should be subtracted (set aside) from the total quota and not provided as an additional quota. The State of South Carolina believes the quota for smooth dogfish landed in exempted fishing programs is adequate, and notes that they have several public aquaria and 3 to 4 researchers in the state who have permits to collect sharks. None of those permit holders have expressed concerns to the State about the proposed quota. The State of Georgia noted that the set aside amount for the exempted fishing program is reasonable.

Response: NMFS prefers the alternative to establish a separate smooth dogfish set-aside quota for the exempted fishing program of 6 mt ww. The set-aside quota for the exempted fishing permit (EFP) program is an important part of any fishery management plan. The EFP program facilitates research that can be used to inform management measures and provide data for stock assessment. Creating a separate and distinct set-aside quota from the principle quota ensures that research activities do not impede the commercial or recreational fisheries through quota limitations. As noted in the previous response, NMFS’ intention when establishing the commercial quota was to set it a level that would account for all annual commercial landings. For this reason, it is not prudent to subtract the set-aside quota from the overall commercial quota. Doing so would result in a smaller commercial quota that might not fully account for the current annual commercial landings. In the future, after performing a stock assessment and characterizing the fishery, adjustments could be made to the set-aside quota as well as the commercial quota.

Comment 9: Any differences between the NMFS and ASMFC plans will complicate smooth dogfish fishing since fishermen will have a difficult time following the regulations. There must be coordination between ASMFC and NMFS.

Response: On January 1, 2010, the ASMFC Coastal Sharks FMP, which includes smooth dogfish measures in Addendum I, was implemented across most of the Atlantic

coast states. The ASMFC plan contains several measures that differ from NMFS', as detailed in the response to Comment 1 of this section, resulting in a few inconsistencies between the two plans. NMFS recognizes the importance of consistent regulations between state and federal waters for both stock health and ease of compliance. While complimentary ASMFC and NMFS plans are not possible at this time, NMFS would work closely with the ASMFC toward similar management measures and would consider any future changes to the ASMFC plan to ensure measures are as consistent as possible between state and federal waters. As additional data from the fishery becomes available and the fishery becomes more fully characterized, NMFS would have better information to inform collaboration and future management measures. NMFS is aware of and disclosed the potential inconsistencies between the ASMFC Coastal Shark FMP and federal management of smooth dogfish under the Magnuson-Stevens Act in the FEIS (Section 4.3).

Comment 10: The State of Virginia noted that having fins attached would significantly change how the fishery is prosecuted and smooth dogfish fishermen would shift all their effort into state waters. By shifting effort from federal to state waters, Alternative F2 provokes an unintended consequence of increasing the likelihood of interaction between smooth dogfish gear and several stocks of bottlenose dolphin that spend the majority of the year within state waters.

Response: NMFS recognizes that differences in federal and state smooth dogfish regulations could redistribute effort resulting in a fishery that is no longer equally divided between state and federal waters. However, regardless of where fishing activities occur, protected resource interactions are a concern, and care must be taken to avoid or minimize impacts on marine mammals and sea turtles. In federal waters, smooth dogfish fishermen will be required to abide by both the gillnet and other requirements in 50 CFR part 635 and with the regulations implemented under various Take Reduction Plans (TRPs) in 50 CFR part 229 to minimize adverse impacts on protected resources. Although NMFS does not have jurisdiction over the smooth dogfish fishery in state waters, Section 118 of the Marine Mammal Protection Act (MMPA) tasks NMFS in the development and implementation of TRPs to reduce serious injuries and mortalities of marine mammal populations incidental to commercial fishing activities. These TRPs have numerous requirements to minimize impacts on marine mammal populations and are applicable in both state and federal waters. The permitting requirement in the preferred alternative should enhance the ability of smooth dogfish fishermen to participate in these TRPs. Numerous TRPs exist, including the Bottlenose Dolphin Take Reduction Plan (BDTRP), which smooth dogfish fishermen will have to abide by if fishing in Virginia state waters. Specific regulations pertinent to the BDTRP can be found at 50 CFR 229.35. Any redistributed effort into Virginia's state waters affecting bottlenose dolphins will be addressed under the BDTRP or other applicable TRP.

In addition, NMFS is currently engaged in formal Section 7 consultation in accordance with the ESA, paragraph 7(a)(2), to determine the potential level of incremental effect that may arise as a result of the preferred management measures for smooth dogfish in the FEIS. NMFS has not yet issued a final BiOp for the smooth dogfish fishery. NMFS will review that BiOp once it is issued and supplement the

analysis in this FEIS if the consultation reveals any new or significant effects with respect to the interaction between gillnet fishing for smooth dogfish and protected species that were not considered in the 2008 BiOp for Amendment 2 to the 2006 Consolidated HMS FMP. The FEIS incorporates by reference the 2008 BiOp for Amendment 2 to the 2006 Consolidated HMS FMP. A detailed discussion of the effects of such management relevant to the shark fishery is included in that document. NMFS does not anticipate any substantial change in impact to protected species since the measures proposed for smooth dogfish management are largely administrative, and thus unlikely to affect the manner and extent of fishing for smooth dogfish or redistribution of effort into other fisheries. NMFS assumes there is a correlation between fishing effort and protected species interactions. Since smooth dogfish management measures would establish a quota and permit requirement, fishing effort for smooth dogfish would be capped or slightly reduced with a corresponding diminishment of the possibility of increased protected resource interactions. In addition, increased observer in the smooth dogfish fishery as a result of a federal permit requirement would better characterize protected resources interactions with the smooth dogfish fishery.

Comment 11: Florida fishermen catch smooth dogfish in the Tortugas and use them as bait because smooth dogfish are worthless. Gulf of Mexico fishermen catch them while grouper fishing. If you catch 5,000 lbs of grouper, you might have about 50 lbs of smooth dogfish. The common length is 12-24” and they are caught at the top of the continental shelf. NMFS should not include rules made for the mid-Atlantic in the Gulf of Mexico. If smooth dogfish are causing problems in the mid-Atlantic, NMFS should establish separate regulations on them. Fishermen in the Gulf of Mexico cannot fish for anything without catching a few smooth dogfish. There are no smooth dogfish fisheries in the Gulf of Mexico.

Response: Smooth dogfish is a widely distributed species, ranging from Massachusetts to South America including the Gulf of Mexico and Caribbean Sea (see Chapter 11). Despite this wide distribution, the current fishery is concentrated in the Mid-Atlantic region, and no reports of commercial landings in the Gulf of Mexico could be found. Although there are no reported landings of smooth dogfish in the Gulf of Mexico, research trawls by the SEFSC have shown that they are present in the region including in Louisiana waters (see Chapter 11 in Amendment 3). Fishermen in the Gulf of Mexico that incidentally catch smooth dogfish, but do not retain the fish or parts of the fish, will not be required to abide by federal smooth dogfish regulations or need to obtain a smooth dogfish permit.

Under current Atlantic HMS regulations, it is illegal to catch sharks and use them as bait. If smooth dogfish were under federal management, this requirement would apply to smooth dogfish as well. The known distribution of smooth dogfish, validated by comments such as this one, necessitates a central, unified management authority of the species. The fact that a market exists for smooth dogfish, and that they are regularly encountered in places other than the Mid-Atlantic, make management measures and data collection in the fishery important. Even though fishermen do not currently land smooth dogfish in the Gulf of Mexico, the presence of both the resource and a market means a fishery could develop in that region, particularly if other more profitable fisheries are

reduced or limited. NMFS did not add an alternative in the FEIS to separate the smooth dogfish into separate management units or fisheries in response to this comment.

Comment 12: Why will recreational fishermen be required to have a smooth dogfish permit? Would the recreational permit for smooth dogfish be the same as the current HMS recreational permit? Most of the smooth dogfish are caught incidentally. No one targets smooth dogfish recreationally. The State of South Carolina notes that few smooth dogfish are landed in their recreational fishery as that species primarily occur off our coast in the winter months when angler effort is decreased.

Response: Efforts to characterize the smooth dogfish fishery must include both commercial and recreational fishermen to adequately estimate effort and catch. As when recreationally fishing for other Atlantic sharks, smooth dogfish recreational fishermen would need to obtain an HMS Angling Permit and charter/headboats that take smooth dogfish would need to obtain a HMS Charter/Headboat permit. Those who already hold this permit will be not need an additional permit to fish for smooth dogfish recreationally.

Comment 13: The State of South Carolina commented that, unless future stock assessments indicate that smooth dogfish are overfished, the current commercial and recreational size and retention limits seem appropriate.

Response: NMFS agrees that at this time there is no justification for imposing a size or retention limit for smooth dogfish in the recreational or commercial fishery. This is inline with the intent to minimize changes to the fishery while collecting data to characterize it. Currently, the fishery does not operate under any type of size or retention limit restrictions. After a stock assessment is completed on the species, changes could be necessary.

Comment 14: A few commenters noted that the EFH for smooth dogfish proposed by NMFS looks appropriate. The State of South Carolina agrees that the occurrence data presented is where dogfish are captured within U.S. waters. However, the State notes that there is a discontinuity between the Gulf of Mexico and the Atlantic coast groups (as presented in Figure 11.1 of Amendment 3) that may indicate further investigation of species characteristics and distribution is warranted.

Response: Identifying and describing EFH for federally managed species is a statutory requirement mandated by the Magnuson-Stevens Act. As detailed in Chapter 11, NMFS used a variety of research survey datasets to identify and describe the EFH around positive smooth dogfish observations. Although NMFS relied on geographically limited datasets, the resulting EFH designation closely matches literature descriptions of smooth dogfish distribution, boosting confidence in the determination. The NEFSC offered suggestions on available research survey datasets. Once incorporated, these datasets contributed to a more robust smooth dogfish designation than that proposed in the DEIS of Amendment 3. The discontinuity in EFH off the Georgia and eastern Florida coasts will require further analysis due to the lack of smooth dogfish data in the area. However, literature on smooth dogfish distribution also note an absence of the species in

that area. As noted, NMFS incorporated changes to its identification and description of EFH in the FEIS based on this and similar comments.

Comment 15: NMFS stated in Amendment 3 that there is not sufficient information for smooth dogfish EFH. If that is the case, why did NMFS propose EFH?

Response: As noted in the previous response, identifying and describing EFH for federally managed species is a statutory requirement mandated by the Magnuson-Stevens Act. Although NMFS is confident that the designated smooth dogfish EFH is accurate, particularly after incorporating the datasets suggested by the NEFSC, NMFS will work to ensure that EFH for all HMS species utilizes the best available information. No changes were made in the FEIS based on this comment.

Comment 16: NMFS received several comments questioning whether smooth dogfish is a highly migratory species (HMS) and should be managed by NMFS or a Regional Fishery Management Council, such as the MAFMC. Commenters stated that the Magnuson-Stevens Act defines HMS as an “oceanic shark” and asked if smooth dogfish are oceanic sharks. Commenters also asked why spiny dogfish are managed by the MAFMC and NEFMC. One commenter stated that NMFS should manage smooth dogfish fisheries since it is the only Atlantic shark species, which is subjected to a targeted fishery that has no federal management measures. That commenter also felt a federal management component would likely enhance new management efforts by the ASMFC.

Response: The Magnuson-Stevens Act is the primary statute giving fishery management authority to NMFS, which is then executed by the Secretary, and the Regional Fishery Management Councils. In most cases, Regional Fishery Management Councils have authority for fisheries management for stocks and species within each Council’s geographic jurisdiction as established by the Magnuson-Stevens Act. The only exception to this management authority is for Atlantic HMS that are within the geographic authority of more than one of the five Atlantic Councils. For this reason, management of Atlantic HMS was unified by the Magnuson-Stevens Act under the Secretary of Commerce. The Act defines Atlantic HMS through two subsections and one National Standard: Section 3 (21), Section 302 (3), and Section 301(3) (National Standard 3). These sections read as follows:

Section 3 (21): The term "highly migratory species" means tuna species, marlin (*Tetrapturus* spp. and *Makaira* spp.), oceanic sharks, sailfishes (*Istiophorus* spp.), and swordfish (*Xiphias gladius*).

Section 302 (3): The Secretary shall have authority over any highly migratory species fishery that is within the geographical area of authority of more than one of the following Councils: New England Council, Mid-Atlantic Council, South Atlantic Council, Gulf Council, and Caribbean Council.

Section 301(3) (National Standard 3): To the extent practicable, an individual stock of fish should be managed as a unit throughout its range, and interrelated stocks of fish shall be managed as a unit or in close coordination.

Magnuson-Stevens Act Section 3 (21) defines HMS. Unlike some other HMS, sharks mentioned in the definition are not defined by family or species. Rather, the term “oceanic shark” is used. The statute does not further expound upon or define this term. NMFS, therefore, considered two major factors in making its determination with respect to smooth dogfish. First, it considered the life history, habitat, migratory patterns, occurrence and distribution of the species. Second, NMFS considered its interpretation in the context of the various provisions of the Magnuson-Stevens Act applicable to HMS to ensure that its interpretation was logical and consistent with those provisions. Given the broad application of the term in conjunction with the habitat, migratory patterns and geographic distribution of the species, smooth dogfish is fairly characterized as an oceanic shark consistent with the structure and application of the Magnuson-Stevens Act. A more detailed rationale follows.

NMFS examined Section 302 (3) and Section 301 (3) (National Standard 3). Both of these sections relate to management authority based on the distribution of the species. As noted in Chapter 11, smooth dogfish inhabit the geographical area of all five Atlantic Regional Fishery Management Councils, and across international boundaries to South America and Mexico. As noted in Chapter 11, smooth dogfish tend to be found inshore during the warmer months. However, thermally stable, deep offshore waters are preferred in the colder months (up to 200m) and Caribbean populations occupy waters deeper than 200m. Data from research surveys show that smooth dogfish are found along the eastern seaboard, in the Gulf of Mexico, and in the Caribbean Sea. Based on these factors, NMFS reasonably concluded that the smooth dogfish is an oceanic shark and, given its range across multiple Atlantic Regional Fishery Management Council Jurisdictions, highly migratory. Moreover, management of smooth dogfish under a single FMP is consistent with the Magnuson-Stevens Act’s mandates for the Secretary to manage highly migratory species to the extent practicable as a single management unit.

Despite extensive investigation, NMFS could not locate records detailing the decision to grant the MAFMC management authority over spiny dogfish. Existing spiny dogfish management authority does not impact management authority of smooth dogfish.

Comment 17: Multiple commenters asked who requested federal smooth dogfish management.

Response: NMFS received smooth dogfish management requests from a number of environmental conservation organizations. Furthermore, around the time of scoping for Amendment 3, both the ASMFC and the MAFMC identified that smooth dogfish were in need of conservation and management and began the process of creating management measures. These efforts by the ASMFC and the MAFMC reinforce the emerging realization that the fishery is in need of both state and federal management.

Comment 18: NMFS should work with the small group of fishermen that fish for smooth dogfish to gather info on the fishery rather than proposing new requirements.

Response: Although a specialized fishery with perhaps a smaller number of fishermen than other fisheries, the smooth dogfish fishery still includes a large number of participants. Within the Vessel Trip Report (VTR) and Coastal Fisheries Logbook databases, an average of 213 vessels per year reported landing smooth dogfish between 2004 and 2007. This large number of participants makes collaboration with each of the smooth dogfish participants impracticable. However, under the smooth dogfish preferred alternative, alternative F2, implementation of management measures will be delayed until the beginning of the smooth dogfish fishing season in 2012. This delay will allow NMFS to continue outreach and have discussions with smooth dogfish participants regarding the fins attached regulation and will allow fishery participants time to modify their operation to comply with the regulations that will be implemented in 2012. A discussion of the smooth dogfish fishery is included in the FEIS (Section 4.3).

Comment 19: NMFS should ensure that smooth dogfish will be available year round. The January 1 opening for smooth dogfish could be good for North Carolina, since it is a winter fishery. It would affect North Carolina fall catch rates if the fishery became quota-limited.

Response: Inline with the intention to minimize changes to the fishery, NMFS decided to establish a quota that would allow current exploitation levels of smooth dogfish to continue. NMFS believes that the established quota is at a sufficient level to prevent quota limitations if the fishery maintains current landing levels. Because there are no regional or seasonal restrictions included in the preferred alternative, the quota should be available year-round, and no specific region or state will disproportionately benefit from the quota. NMFS plans to open the fishery each year with a Federal Register notice that would likely publish near the beginning of each year.

Comment 20: One commenter noted that smooth dogfish fishermen fish several nets at once, with short soak times. It would change the fishery if NMFS required the nets to remain attached to the vessel. The State of South Carolina commented that the smooth dogfish gillnet fishery has been practiced for some time in North Carolina and the Mid-Atlantic States. If during this time there have been no or few problems associated with interactions with endangered or protected species, the State sees no reason to increase restrictions or change the way the fishery has historically been prosecuted. One commenter noted that the two hour net checks probably would not hurt smooth dogfish fishermen since the soak time is short. However, fishermen cannot do net checks with a flashlight looking down into the water because the nets are set deep. Also, net checks will be difficult to enforce. Another commenter stated that NMFS should extend existing gillnet gear tending requirements to smooth dogfish fishermen, such as requiring that gillnets be checked at least every two hours and that protected and prohibited species are released. Gillnets frequently catch non-target species, including prohibited shark species, marine mammals, and sea turtles. The nature of the gear makes some level of bycatch nearly unavoidable.

Response: NMFS agrees that the requirement to keep gillnets attached to the vessel and to perform net checks could alter how the smooth dogfish fishery operates. Smooth dogfish fishermen will be required to abide by federal Take Reduction Plans specific to the region of fishing activity. These plans include the Atlantic Large Whale Take Reduction Plan, the Bottlenose Dolphin Take Reduction Plan, and the Mid-Atlantic Harbor Porpoise Take Reduction Plan that include requirements to keep gillnets attached to the vessel and to perform net checks in order to minimize interactions with protected resources and to ensure those that are incidentally caught are released in a manner that maximizes survival.

NMFS is currently engaged in formal Section 7 consultation in accordance with the ESA, paragraph 7(a)(2), to determine the potential level of incremental effect that may arise as a result of the preferred management measures for smooth dogfish in the FEIS. NMFS has not yet issued a final BiOp for the smooth dogfish fishery. NMFS will review that BiOp once it is issued and supplement the analysis in this FEIS if the consultation reveals any new or significant effects with respect to the interaction between gillnet fishing for smooth dogfish and protected species that were not considered in the 2008 BiOp for Amendment 2 to the 2006 Consolidated HMS FMP. The FEIS incorporates by reference the 2008 BiOp for Amendment 2 to the 2006 Consolidated HMS FMP. A detailed discussion of the effects of such management relevant to the shark fishery is included in that document. NMFS does not anticipate any substantial change in impact to protected species since the measures proposed for smooth dogfish management are largely administrative, and thus unlikely to affect the manner and extent of fishing for smooth dogfish or redistribution of effort into other fisheries. NMFS assumes there is a correlation between fishing effort and protected species interactions. Since smooth dogfish management measures would establish a quota and permit requirement, fishing effort for smooth dogfish would be capped or slightly reduced with a corresponding diminishment of the possibility of increased protected resource interactions. In addition, increased observer in the smooth dogfish fishery as a result of a federal permit requirement would better characterize protected resources interactions with the smooth dogfish fishery.

Under the preferred alternative (F2), the implementation of the management measures would be delayed until the beginning of the smooth dogfish fishing season in 2012 to allow time to consider and evaluate the information and requirements included in the final smooth dogfish BiOp. If the assessment of effects in the BiOp provides new and meaningful information not considered in this FEIS, NMFS will supplement the FEIS, as appropriate, before implementing any management measures proposed in alternative F2. In the interim, NMFS will not impose any management authority or related conservation and management measures on the smooth dogfish fishery, and thus will not cause any effect on protected species related to such management. In other words, preferred alternative F2 would maintain the status quo with respect to the smooth dogfish fishery as it relates to protected species prior to receiving a final BiOp. While NMFS would finalize the rulemaking with measures for blacknose shark and shortfin mako sharks becoming effective 30 days after publication of the final rule in the Federal Register, the measures, if any, selected for management of smooth dogfish would be deferred to allow

NMFS to develop reasonable and prudent alternatives (RPAs) that could be implemented while avoiding adverse impacts to listed species, as necessary

Comment 21: Trawl fishermen skin smooth dogfish at sea and sell them as steaks.

Response: Under federal management, trawl fishermen will likely not be able to continue skinning smooth dogfish at sea, and will not be able to continue processing the fish into steaks at sea. Smooth dogfish, like all other federally managed Atlantic shark species, would be required to be landed with fins naturally attached to the carcass under the current preferred alternative, alternative F2. Trawl fishermen could continue to skin the shark if they can leave the fins naturally attached to the carcass, but they will be unable to process the smooth dogfish into steaks at sea. NMFS did not add an alternative in the FEIS which would exempt trawl fishermen from complying with the prohibition on filleting sharks at sea and the requirement to land smooth dogfish with fins attached in response to this comment.

Comment 22: NMFS might cause an influx of new fishermen into the fishery with the new open access permits.

Response: NMFS acknowledges that there may be some fishermen who will obtain a permit and try to establish a catch history in case the fishery is changed to limited access at some point in the future. There may also be some fishermen in areas that do not currently have a smooth dogfish fishery, such as in the Gulf of Mexico, who may obtain a permit in the hopes of creating a similar fishery in that region. However, NMFS does not believe that the creation of a smooth dogfish open access permit will attract large numbers of new fishermen to the fishery or cause a large increase in fishing effort. The fishery is currently unmanaged in federal waters and operates with few restrictions. Although NMFS has tried to minimize changes to the fishery, federal management does introduce new restrictions, including a requirement to keep fins naturally attached to the carcass. If fishermen did not choose to enter the fishery when it was unmanaged, it is unlikely that federal management would entice them to enter actively fish now. A discussion of the socio-economic impacts of bringing the smooth dogfish fishery under federal management is included in the FEIS (Section 4.3).

Comment 23: NMFS should proceed with a stock assessment for smooth dogfish throughout their range. The State of Virginia suggested that pooling resources between ASMFC, NMFS, and MAFMC may expedite the process.

Response: A stock assessment is of utmost importance in any fishery management plan. Knowing the current biomass and how it relates to  $B_{msy}$  or to virgin stock biomass informs quota levels and size and retention limits. NMFS believes that the first step in working toward a stock assessment is collecting data and characterizing the fishery. Once NMFS has sufficient data from the fishery a stock assessment could be done in the future to determine the stock status of this species. These are the goals of the smooth dogfish measures in the preferred alternative for Amendment 3 as explained in the FEIS (Section 4.3). NMFS would work closely with ASMFC, MAFMC and other interested parties in conducting a stock assessment.

## **D.7 General Comments**

Comment 1: Is there a mechanism in place for ASMFC to request that the Secretary implement complementary management measures in the EEZ?

Response: The ASMFC is always encouraged to offer management recommendations to NMFS regarding federally managed species. Furthermore, NMFS included an alternative in the FEIS to implement smooth dogfish management measures that mirror ASMFC measures. However, after analyzing the smooth dogfish measures in place in the 2009 Interstate Coastal Sharks FMP and Smooth Dogfish Addendum I, NMFS determined that it would likely be unable to implement many of the management measures due to Magnuson-Stevens Act, and Shark Fining Prohibition Act requirements.

Comment 2: NMFS needs to add deepwater sharks to the list of prohibited shark species. Deepwater sharks are particularly slow growing and therefore vulnerable to overfishing, and related populations have been severely and rapidly depleted from fisheries in other parts of the world.

Response: Implementing federal management of deepwater sharks by placing them on the prohibited list would not likely have significant ecological benefits since deepwater sharks are not currently targeted in any fishery and are only caught as bycatch. Placing this group on the prohibited list would not prevent bycatch of these species. Additionally, prohibiting the landing of deepwater sharks would limit data gained from incidental catches. If prohibited, these rarely encountered species would have to be released and could not be landed and submitted for subsequent analysis. Establishing management measures for deep water sharks is beyond the scope of Amendment 3 and does not meet the purpose and need described in the DEIS and FEIS. Alternatives for such measures were therefore not considered in the FEIS.

Comment 3: Deepwater sharks are not commercially important in the United States for food. NMFS needs to truly understand the fisheries that interact with deepwater sharks and be able to assess the deepwater shark stocks accurately, especially if there is a bycatch that is or could become a secondary market landing and sale.

Response: As noted in the previous response, deepwater sharks are rarely encountered and only caught as bycatch. NMFS encourages anyone who catches a deepwater shark to submit the shark to scientists for research.

Comment 4: We are concerned about the accuracy of some of the statistics presented on recreational fishery “harvest.” For example, NMFS states that the number of porbeagle sharks that were “harvested” by recreational fishermen across all reporting years was zero. Tournaments regularly target this species and award prizes for landing them. Additionally, NMFS shows that annual harvest of sand tiger sharks was zero for the reporting years except for 2001 when 604 were taken and 2006 when 1,040 were killed. It is hard for us to see how the recreational fishery took over 1,000 sand tiger sharks in a single year, more than a decade after they were listed as a prohibited species.

As such, we are concerned about the reliability of the data used by NMFS as a basis for determining impacts on species.

Response: Collection of recreational fishery catch and effort data relies on survey methods. Data are collected through a combination of dockside intercepts and telephone surveys. Since it is not possible to sample all of the millions of fishing trips taken, recreational surveys require sampling a representative portion of fishing trips, and then expanding the results. Recreational harvest estimates for species that are rarely landed, as is the case with many shark species, are typically very imprecise using survey methods designed for more commonly caught species. Marine Recreational Fisheries Statistics Survey (MRFSS) estimates of sharks harvested may also be inaccurate due to the fact that the MRFSS does not sample at tournament locations. The NOAA Fisheries Large Pelagics Survey (LPS), which is conducted from Maine through Virginia, typically produces more reliable recreational catch estimates for rare event species such as sharks, tunas, and billfish. However, landings of species such as porbeagle and sand tiger sharks are still rare events even for the LPS, and variances can be quite large for these species even with a specialized survey. Efforts are underway to improve the accuracy and precision of recreational fisheries data, including estimated catches of rare event species, through a new data collection initiative called the Marine Recreational Information Program or MRIP. NMFS believes the data on recreational harvest, particularly for purposes of SCS species addressed under Amendment 3, reflects the best scientific information available at this time. Therefore, recreation harvest data was not changed in the FEIS in response to this comment.

Comment 5: Sharks need to be available all year and low quotas lead to regulatory discards. Fishermen do not need a directed shark permit to sell sharks caught in NC waters.

Response: In Amendment 2 to the 2006 Consolidated HMS FMP, NMFS implemented a trip limit of 33 non-sandbar LCS trip limit with the expectation that directed shark permit holders would no longer target non-sandbar LCS and that this reduced trip limit would allow the non-sandbar LCS quota to last year-round. However, the 2009 non-sandbar fishery opened on January 23<sup>rd</sup> and closed on July 1st in the Atlantic and June 6th in the Gulf of Mexico. Because the non-sandbar LCS seasons only lasted half of the year, NMFS is currently looking at data and analyzing management measures that would allow the fishery to remain open for longer periods during the fishing year. Adjusting seasons and quotas for non-SCS species is beyond the scope of Amendment 3 and the FEIS, therefore, NMFS did not propose management alternatives in response to this comment.

Many states do not have species-specific commercial fishing permits, and instead rely on a general commercial fishing permit. Fishermen who fish in states waters must comply with their state's fishing regulations. Fishermen that have a directed or incidental federal shark commercial permit must abide by federal regulations and must sell to a federally permitted dealer when fishing in federal or state waters.

Comment 6: The frequency of shark dealer reporting has always needed to be more frequent than every two weeks. It appears that the NMFS personnel have a hard time monitoring the various shark landings as a result of waiting too long.

Response: Frequency of shark dealer reporting requires a balance of data needs and reporting burdens. More frequent reporting could result in a reduction in data lags, however, it would significantly increase the burden of shark dealers. To account for uncertainties such as data lags, the Magnuson-Stevens Act requires AMs in each fishery to ensure that ACLs are not exceeded. In the shark fisheries, NMFS employs an AM whereby the fishery is closed when landings reach, or are expected to reach, 80 percent. This measure has been effective in ensuring that data lags do not result in grossly exceeding the quota. NMFS provides shark landings reports, by complex or species on a frequent basis to ensure that participants are aware of catches in the shark fishery. NMFS is examining changes to the data management structure and may move toward more real time electronic reporting in the future. However, these types of data management actions are beyond the scope of Amendment 3 and alternatives were therefore not proposed in the FEIS in response to this comment.

Comment 7: A Count, Cap and Control system for shark management includes the following: obtaining sufficient landings and observer data to accurately and precisely monitor catch (landings + discards) in the fishery; conducting species-specific stock and fishery assessments; setting annual catch limits to limit all sources of fishing mortality; and implementing accountability measures to ensure the ACLs are respected. Real-time management of quotas, time-area management measures and bycatch caps should be fully explored in this FMP amendment. If the agency decides not to use in-season AMs, it must fully support this decision with a well-defended rationale as to why in-season AMs are truly impossible, rather than impractical or incrementally more difficult to administer. The agency should take a precautionary approach towards administering the remaining quota designations for the oceanic whitetip and common thresher sharks within the pelagic shark species group. There are currently no stock assessments for either the oceanic whitetip or the common thresher sharks. In the past 10 years, the North Atlantic population of oceanic whitetip sharks has declined by an estimated 70 percent. NMFS should reassess their management of pelagic shark species. It is vital that each pelagic shark species caught by U.S. fishermen have a species-specific stock assessment and a species-specific quota.

Response: This amendment specifies how NMFS plans to implement Magnuson-Stevens Act NS1 ACL requirements. Section 1.2 of the FEIS details the methodology, where the quota is equal to the landings comment of the commercial sector ACL. Additionally, AMs already in place in the commercial shark fishery will be maintained. These AMs include restrictions on how to carry over under- and overharvests and closing the fishery when landings reach, or are expected to reach, 80 percent. Changes to how NMFS monitors the landings, introducing time/area closures, or altering bycatch management are not addressed in this amendment as they do not support the purpose and need of this rulemaking. Therefore, management alternatives suggested by this comment were not included in the FEIS.

NMFS has not conducted a stock assessment for oceanic whitetips. Data may be a limiting factor, however, as there are limited landings data for oceanic whitetip sharks. NMFS will continue to work with international partners and ICCAT towards more species-specific assessments for pelagic sharks. To date, ICCAT has completed assessments for blue and shortfin mako sharks. There is scant data available on oceanic whitetip landings. Again, management of the pelagic shark complex other than shortfin mako is beyond the scope of Amendment 3 and would not meet the purpose and need set forth in the FEIS. Therefore, additional pelagic shark management measures (other than for shortfin mako) were not included in the FEIS in response to this comment.

Comment 8: What is the NMFS doing about hammerheads? There is a real problem there along with tiger sharks. NMFS should stop focusing on blacknose and focus on more critical species such as hammerheads.

Response: This amendment, among other things, focuses on NMFS' requirement under the Magnuson-Stevens Act to implement a rebuilding plan and ACLs and AMs in the blacknose shark fishery since this species is overfished and overfishing is occurring based on the 2007 SCS stock assessment results. NMFS continually monitors stocks of all species under its jurisdiction and promptly begins the rulemaking process should one of these stocks be determined to be overfished or have overfishing occurring based on the results of a stock assessment. The LCS complex was assessed in 2006 through the SEDAR process, and this assessment determined that there was not enough information for a tiger shark-specific assessment. For this reason, tiger sharks have an unknown stock status. NMFS is aware of a hammerhead assessment published in a peer reviewed journal and is reviewing that paper to determine its appropriateness for use in making stock status determinations and implementing management measures. Management of hammerhead and tiger sharks is beyond the scope of Amendment 3 and would not meet the purpose and need set forth in the FEIS. Therefore, additional management measures for these species were not included in the FEIS in response to this comment.

Comment 9: If NMFS is conducting a stock assessment on sandbar in 2010, NMFS should consider the stock north of Virginia that usually is not included because there is no fishery there. When you shut down the commercial sandbar fishery, you said it was because they were overfished but there are places you are not assessing.

Response: NMFS uses the best available science and a rigorous SEDAR assessment process for all sharks species. NMFS held a public data workshop for the 2005/2006 LCS stock assessment and requested that participants submit any relevant data or analysis. NMFS included all the available data that were presented at the data workshop for the LCS stock assessment, including fishery-dependent and fishery-independent data from all regions in the Atlantic, Gulf of Mexico and the Caribbean Sea. Data inputs for the stock assessment are not solely fishery-dependant, therefore, geographical limitations of the fishery do not skew the stock assessment results. Management of sandbar sharks is beyond the scope of Amendment 3 and would not meet the purpose and need set forth in the FEIS. Therefore, additional management measures for these species were not included in the FEIS in response to this comment.

Comment 10: Requiring fins be naturally attached does not work for SCS. Some dealers are not renewing their permits because they are afraid of getting in trouble with the requirement. Other dealers do not have room to process fish on the dock.

Response: NMFS does not believe that the requirement to land sharks with fins attached is overly burdensome for the following reasons. The requirement to land sharks with fins attached would allow fishermen to leave the fins attached by just a small piece of skin so that the shark could be packed efficiently on ice while at sea. Shark fins could then be quickly removed at the dock without having to thaw the shark. Sharks may be eviscerated, bled, and the head removed from the carcass at sea. These measures should prevent excessive amounts of waste at the dock, since dressing (except removing the fins) the shark may be performed while at sea. While this would result in some change to the way in which fishermen process sharks at sea, because the fins may be removed quickly once the shark has been landed, NMFS expects that the dealers will not require significantly more room for post-landing processing. Dealers have the option to accept or decline certain species, and federal smooth dogfish regulations would not eliminate that option. For these reasons NMFS did not propose an alternative for consideration in the FEIS which would permit landing of SCS without fins naturally attached to the shark carcass.

Comment 11: What is happening regarding the legislation in place to allow flexibility in the MSA and how does that impact Amendment 3?

Response: NMFS is aware of the Flexibility in Rebuilding American Fisheries Act of 2009 (HR 1584) sponsored by Rep. Pallone (NJ). The Act would amend the Magnuson-Stevens Act and alter the rebuilding deadlines currently in place for overfished stocks. This legislation, however, has not passed either house of Congress, and NMFS is unable to speculate on whether or not it will ultimately pass. At this time, the Magnuson-Stevens Act, as it exists after the 2007 reauthorization, is NMFS' guiding legislation for this amendment.

Comment 12: Is there a possibility of changing the SCS fishery start date to July 1?

Response: The SCS fishing year runs from January to December. The actual fishing season starts when NMFS publishes a notice in the Federal Register. NMFS could delay the opening of the SCS fishing season if data indicate that it is appropriate to do so. In the proposed 2010 Shark Season Rule (October 28, 2009, 74 FR 55526), NMFS proposed to delay the opening of the 2010 SCS shark season until after the publication of Amendment 3 to the 2006 Consolidated HMS FMP. Without a delay in the start date, the 2010 SCS fishery would open under the current quota of 454 metric tons (mt) dressed weight (dw) on the effective date of the final rule for the 2010 Atlantic shark specifications. Amendment 3 proposes, among other things, measures to significantly reduce the non-blacknose SCS and blacknose shark quotas in order to rebuild and end overfishing of blacknose sharks and also establishes a mechanism for implementing annual catch limits (ACLs) and accountability measures (AMs). A delay would also allow time for the establishment of ACLs before the start of the 2010 fishing season in

addition to ensuring the SCS fishery opens under the measures that may be established in Amendment 3. Additional measures to delay the shark season opening are not proposed or considered in the FEIS as they are beyond the scope of Amendment 3 and otherwise provided for under existing regulation.

Comment 13: Is NMFS considering catch shares for the shark fishery?

Response: A catch share is the allocation of the available fishery quota among participants within the fishery. LAPPs are one type of catch share program. These programs may be implemented to address numerous issues, including but not limited to: ending the race for fish, reducing overcapitalization, and improving efficiency and safety, while still addressing the biological needs of a stock. These programs can be designed to meet the specific needs of a fishery, provided they meet the requirements outlined in the Magnuson-Stevens Act. Catch shares were not considered for the shark fishery in this amendment because of the ramifications this type of program would have for the existing permit structure and the time required for implementing these programs.

To properly design a catch share program that appropriately considers the views and interests of all stakeholders and then implements such a system would have taken NMFS several years, and therefore, catch shares were not considered a reasonable alternative for this action given the mandate in subsection 304(e) of the Magnuson-Stevens Act to rebuild the blacknose stock in the shortest time possible and the additional requirement of paragraph 303(a)(15), as implemented by the National Standard 1 Guidelines, to have a mechanism for specifying ACLs and AMs in place for stocks experiencing overfishing by 2010. However, NMFS is considering revisions to the existing permit structure within HMS fisheries. This could include a catch share program for sharks as well as other HMS as was discussed during the September/October 2008 HMS Advisory Panel. NMFS published an ANPR on June 1, 2009 (74 FR 26174), to initiate broad public participation in considering catch shares for HMS fisheries. But establishing a catch share program is beyond the scope of Amendment 3 and does not meet the purpose and need set forth in the FEIS. Catch share options, therefore, were not included or considered in the FEIS.

Comment 14: Blacknose sharks eat newly hatched sea turtles. Your proposal to rebuild blacknose sharks will impact sea turtle populations.

Response: NMFS is bound by the Magnuson-Stevens Act requirements to stop overfishing of blacknose sharks, and to rebuild stocks to a non-overfished status. The Office of Sustainable Fisheries works closely with the Office of Protected Resources to ensure actions in the fishery do not jeopardize the continued existence of protected resources.

Comment 15: Commercial fishing for all shark species should be done using rod and reel only to reduce bycatch.

Response: Although rod and reel often has reduced bycatch of non-target species, this gear is not commonly used in the commercial fishery to target sharks. Gears that are

more commonly used in shark fisheries, such as gillnets and longlines, do have some risk of bycatch however there are bycatch mitigation measures in place in the Atlantic shark fishery that reduce interactions and increase post-release survival of protected resources. Chapter 3 of this document details the numerous measures in place to minimize bycatch in these fisheries. The proposal to restrict commercial shark gear to rod and reel was not included or evaluated in the FEIS in response to this comment.

## **D.8 Economic Comments**

Comment 1: Fishermen cannot sell sharks anymore. Most sharks used to go to the Midwest where there was a stable market. Those markets needed 6 to 8 months of lead time, but that market is gone now. Dealers will buy some meat (\$0.20/lb) because they can resell it as bait.

Response: Permitted commercial shark fishermen are currently allowed under the regulations to sell authorized shark species to permitted dealers. NMFS examined the commercial shark fishing revenues over the past eight years in Chapter 6 of the Draft EIS. Total ex-vessel revenues from small coastal shark meat has fluctuated between approximately \$535,000 and \$823,000 annually over that period with no discernable pattern.

NMFS provided median real ex-vessel prices for shark species groups from 2004-2007 in Table 6.7 of the Draft EIS. The median ex-vessel price for small coast shark meat from 2004-2007 was \$0.66 per pound dressed weight. NMFS acknowledges there is significant seasonal and regional variation in dealer prices. The lowest average ex-vessel median average price was for smooth dogfish, \$0.29 per pound dressed weight, which is similar to the price the commenter indicated dealers are paying.

Comment 2: Did NMFS look at the monetary figures? If you spread the small SCS quota across all the permit holders, there is not enough quota for everyone.

Response: NMFS examined the per vessel impacts of the proposed SCS quotas across all permit holders in Chapter 8 of the Draft EIS. Based on data from 2004 to 2007 for directed and incidental shark permit holders that landed non-blacknose SCS, the average directed shark permit holder earned \$9,427 in average annual gross revenues, and the average incidental shark permit holder earned \$707 in average annual gross revenues from non-blacknose SCS landings. For those permit holders that actually landed blacknose shark during that same time period, the average directed shark permit holder earned \$3,640 in average annual gross revenues, and the average incidental shark permit holder earned \$1,722 in average annual gross revenues from blacknose shark landings.

NMFS acknowledges that the availability of SCS quota proposed in the DEIS would be limited if spread across all permit holders. As described in the responses above, NMFS made changes to the SCS quotas based, in part, on the comments received. The preferred alternative in the FEIS for small coastal sharks is now 221.6 mt versus 56.9 mt preferred under the DEIS. The preferred alternative for blacknose shark quota was raised from 14.9 mt under the DEIS to 19.9 mt in the FEIS.

Comment 3: Multispecies fishermen need every species they can catch. The economic impacts on these multispecies fishermen were not considered.

Response: NMFS examined the cumulative economic impacts of the proposed rule in section 4.11 of the DEIS and FEIS.

Comment 4: The fins attached rule decreased effort on SCS because it is too much work processing the sharks twice in hot weather. Prices are lower for SCS because the fins on rule decreased the quality due to increased processing time.

Response: NMFS acknowledges that the fins on rule could decrease the quality of the product due to increased processing time. However, other factors such as market demand and decreased supplies might also affect prices. NMFS will examine the impacts that leaving fins on sharks is having on prices for SCS as information becomes available.

Comment 5: Shortfin mako sharks are a significant secondary bycatch for the US pelagic fishing fleets from Maine to Texas. Like most sharks this is a shared resource with other countries. NMFS is unilaterally proposing to hurt US fishermen first with economic impacts.

Response: NMFS acknowledges that mako shark is often a bycatch species in other fisheries in the United States. The preferred alternatives for the commercial shortfin mako shark fishery will not change the current retention limits for U.S. fishermen at this time. NMFS will promote the live release of shortfin mako sharks, but will not make it mandatory for the fishery. NMFS is proposing to take action at the international level to end overfishing of shortfin mako sharks through participation in international fisheries organizations such as ICCAT. While the proposed alternatives could impact U.S. fishermen economically before it impacts fishermen in other countries, neither of these measures are expected to have a significant economic impact on U.S. commercial fishermen.

Comment 6: The preferred alternative that would eliminate the recreational fishery is, in fact, an allocation decision that gives 100 percent of the blacknose shark TAC to the commercial sector. There are no analyses of the economic benefits to the nation associated with this allocation. Such an economic analyses is required.

Response: Blacknose sharks rarely reach a size greater than the current federal minimum size; therefore, the current 54 inch FL size limit creates a de facto retention prohibition of blacknose sharks in federal waters. As discussed in the DEIS, NMFS determined that prohibiting the retention of blacknose sharks in the recreational fishery under alternative D4 could have some negative social and economic impacts on recreational fishermen, including tournaments and charter/headboats, if the prohibition of blacknose sharks resulted in fewer charters. However, since blacknose sharks are not one of the primary species targeted by recreational anglers, in tournaments or on charters and they rarely reach a size greater than the current federal minimum size, NMFS estimates

limited negative social and economic impacts from alternative D4 on recreational anglers, tournaments, or in the charter/headboat sector.

In the FEIS, alternative D1 is the preferred alternative because the effect is the same as prohibiting the retention of blacknose sharks, thereby contributing to the rebuilding of the species. NMFS chose to prefer this alternative rather than the previously preferred alternative, alternative D4, because the effect is the same, therefore action is unnecessary.

Comment 7: A few commenters, including the State of Virginia, noted that there is no indication that finning has been, is, or is likely to become a problem in the smooth dogfish fishery because of the economics of the fishery. The State of Virginia notes that the smooth dogfish fishery subsists as a high volume and labor intensive endeavor, as a typical whole round weight of 1,000 pounds contains 200 to 250 individual dogfish. In a typical processed catch of smooth dogfish, the dockside value of the fins represents 20 to 30 percent of the price paid to fishermen for their total catch, and fishermen return dockside with meat and fins in separate containers. Delaying the removal of fins and tail until landing would result in decreased marketability. Smooth dogfish are harder than other species to extract from the net, butcher and clean, with the result that labor costs represent a higher percentage of the total value of the product. Cutting fins at sea is important practically to the fishery in order to maintain proper product freshness. In the absence of processing, there would be a loss of profitability to the industry because of the increased labor with re-handling each carcass.

Response: NMFS agrees that processing smooth dogfish is likely a labor intensive operation. While the delay in the removal of fins and tails until landing could reduce the quality and marketability of smooth dogfish, it is unclear whether any decreases in ex-vessel prices would exceed potential cost savings from reduced labor needs at sea associated with finning on the vessel. There would potentially be an increase in operating costs for dealers if they end up processing the fins from the smooth dogfish carcasses.

Comment 8: If NMFS set the smooth dogfish quota at 1,423,728 lb dw, we may not reach it very often but there would be years when we do. The pricing is dependent on the international market (years when the price is high, the quota will go fast).

Response: The proposed smooth dogfish quota was selected in order to accommodate average fishing levels. The 1,423,728 lb dw quota is equal to the maximum annual landings between 1998-2007 plus one standard deviation. NMFS acknowledges that in rare years, this quota might constrain the fishery. In part to address this issue, NMFS added an additional alternative to the FEIS where the smooth dogfish quota would be set equal to the maximum annual landings from 1998-2007 plus two standard deviations (1,577,319 lb dw). This new preferred alternative should accommodate the potential few years where the smooth dogfish quota may exceed 1,423,728 lb dw.

NMFS is also aware that international markets may impact the pricing of domestic smooth dogfish. However, NMFS does not currently have sufficient data on the fishery to model the degree to which high international prices may increase domestic landings of smooth dogfish.

Comment 9: There is little or no fin value for smooth dogfish.

Response: The median ex-vessel price for smooth dogfish fins was estimated to be \$2.02 per pound between 2004 and 2007. Based on ACCSP data from 1998-2007, in the commercial fishery an average of 1,321,695 lb ww of smooth dogfish were retained per year. Of this total, NMFS estimates 47,543 lb of fins would be available for sale per year. Using the median ex-vessel price of these products between 2004 and 2007 (\$2.02 for smooth dogfish fins), the fishery averaged \$ 96,037 in value per year.