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**DEPARTMENT OF COMMERCE**

**National Oceanic and Atmospheric Administration**

**50 CFR Part 635**

**[Docket No. 180212159-8159-01]**

**RIN 0648-BH75**

**Atlantic Highly Migratory Species; Shortfin Mako Shark Management Measures;  
Proposed Amendment 11**

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

**ACTION:** Proposed rule; request for comments.

**SUMMARY:** NMFS is proposing to amend the 2006 Consolidated Atlantic Highly Migratory Species (HMS) Fishery Management Plan (FMP) based on the results of the 2017 stock assessment and a subsequent binding recommendation by the International Commission for the Conservation of Atlantic Tunas (ICCAT) for North Atlantic shortfin mako sharks. The North Atlantic shortfin mako shark stock is overfished and is experiencing overfishing. Consistent with the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) and the Atlantic Tunas Convention Act (ATCA), NMFS is proposing management measures that would reduce fishing mortality on shortfin mako sharks and establish a foundation for rebuilding the shortfin mako shark population consistent with legal requirements. The proposed measures could affect U.S. commercial and recreational fishermen who target and harvest shortfin mako sharks in the Atlantic Ocean, including the Gulf of Mexico and Caribbean Sea by increasing live releases and reducing landings.

**DATES:** Written comments must be received by October 1, 2018. NMFS will hold six public hearings and an operator-assisted public hearing via conference call and webinar on this proposed rule for Draft Amendment 11 to the 2006 Consolidated HMS FMP (Amendment 11) in August and September 2018. For specific dates and times see the SUPPLEMENTARY INFORMATION section of this document.

**ADDRESSES:** You may submit comments on this document, identified by NOAA-NMFS-2018-0011, by any one of the following methods:

- *Electronic Submission:* Submit all electronic public comments via the Federal e-Rulemaking Portal. Go to [www.regulations.gov/#!docketDetail;D=NOAA-NMFS-2018-0011](http://www.regulations.gov/#!docketDetail;D=NOAA-NMFS-2018-0011), click the "Comment Now" icon, complete the required fields, and enter or attach your comments.
- *Mail:* Submit written comments to Guý DuBeck, NMFS/SF1, 1315 East-West Highway, National Marine Fisheries Service, SSMC3, Silver Spring, MD 20910.

*Instructions:* Please include the identifier NOAA-NMFS-2018-0011 when submitting comments. Comments sent by any other method, to any other address or individual, or received after the close of the comment period, may not be considered by NMFS. All comments received are a part of the public record and generally will be posted for public viewing on [www.regulations.gov](http://www.regulations.gov) without change. All personal identifying information (*e.g.*, name, address), confidential business information, or otherwise sensitive information submitted voluntarily by the sender will be publicly accessible. NMFS will accept anonymous comments (enter "N/A" in the required fields if you wish to remain anonymous). Attachments to electronic comments will be accepted in Microsoft Word, Excel, or Adobe PDF file formats only.

NMFS will hold six public hearings and one operator-assisted public hearing via conference call and webinar on this proposed rule and Draft Amendment 11. NMFS will hold

public hearings in Corpus Christi, TX; Linwood, NJ; Manteo, NC; Morehead City, NC; Gloucester, MA; and St. Petersburg, FL. For specific locations, see the SUPPLEMENTARY INFORMATION section of this document.

Copies of the supporting documents—including the draft environmental impact statement (DEIS), Regulatory Impact Review (RIR), Initial Regulatory Flexibility Analysis (IRFA), and the 2006 Consolidated Atlantic HMS FMP and amendments are available from the HMS website at <https://www.fisheries.noaa.gov/topic/atlantic-highly-migratory-species> or by contacting Guý DuBeck at (301) 427-8503.

**FOR FURTHER INFORMATION CONTACT:** Guý DuBeck or Karyl Brewster-Geisz at (301) 427-8503.

#### **SUPPLEMENTARY INFORMATION:**

##### **Background**

The North Atlantic shortfin mako stock is managed primarily under the authority of the Magnuson-Stevens Act and also under ATCA. The 2006 Consolidated HMS FMP and its amendments are implemented by regulations at 50 CFR part 635. A brief summary of the background of this proposed rule is provided below. Additional information regarding Atlantic shark management can be found in the DEIS accompanying this proposed rule for Amendment 11, the 2006 Consolidated HMS FMP and its amendments, the annual HMS Stock Assessment and Fishery Evaluation (SAFE) Reports, and online at <https://www.fisheries.noaa.gov/topic/atlantic-highly-migratory-species>.

##### *North Atlantic Shortfin Mako Shark Stock Status and Emergency Interim Final Rule*

The North Atlantic shortfin mako shark (*Isurus oxyrinchus*) is a highly migratory species that ranges across the entire North Atlantic Ocean and is caught by numerous countries. The

stock is predominantly caught offshore in association with fisheries that primarily target tunas and tuna-like species. While these sharks are a valued component of U.S. recreational and commercial fisheries, U.S. catch represents only approximately 11 percent of the species' total catch in the North Atlantic by all reporting countries. International measures are, therefore, critical to the species' effective conservation and management.

In August 2017, ICCAT's Standing Committee on Research and Statistics (SCRS) conducted a new benchmark stock assessment on the North Atlantic shortfin mako stock. At its November 2017 annual meeting, ICCAT accepted this stock assessment and determined the stock to be overfished, with overfishing occurring. On December 13, 2017, based on this assessment, NMFS issued a status determination finding the stock to be overfished and experiencing overfishing applying domestic criteria. The assessment specifically indicated that biomass ( $B_{2015}$ ) is substantially less than the biomass at maximum sustainable yield ( $B_{MSY}$ ) for eight of the nine models used for the assessment ( $B_{2015}/B_{MSY} = 0.57-0.85$ ). In the ninth model, spawning stock fecundity (SSF) was less than  $SSF_{MSY}$  ( $SSF_{2015}/SSF_{MSY} = 0.95$ ). Additionally, the assessment indicated that fishing mortality ( $F_{2015}$ ) was greater than  $F_{MSY}$  (1.93-4.38), with a combined 90 percent probability from all models that the population is overfished, with overfishing occurring. This was a change from the 2012 stock assessment that indicated that both the North and South Atlantic stocks of shortfin mako sharks were healthy and the probability of overfishing was low. However, the high uncertainty in past catch estimates and deficiency of some important biological parameters, particularly for the Southern stock, were still obstacles for obtaining reliable estimates of current status of the stocks.

The 2017 assessment estimated that total North Atlantic shortfin mako catches across all ICCAT parties are currently between 3,600 and 4,750 metric ton (mt) per year. The assessment

further indicated that such total catches would have to be at or below 1,000 mt (72-79 percent reductions) to prevent further population declines, and total catches of 500 mt or less would be expected to stop overfishing and begin rebuilding the stock. The stock assessment projections indicated that a total allowable catch of 0 mt would produce a greater than 50 percent probability of rebuilding the stock by the year 2040, which is approximately equal to one mean generation time. The stock assessment report stated that while research indicates that post-release survival rates of Atlantic shortfin mako sharks are high (70 percent), the assessment could not determine if requiring live releases alone would reduce landings sufficiently to end overfishing and rebuild the stock. The stock assessment did not evaluate rebuilding times greater than one mean generation time, although shark stocks generally take longer than one mean generation time to rebuild given their slow reproductive biology and other factors.

Based on this information and given that the stock is primarily caught in association with ICCAT fisheries, ICCAT at its November 2017 meeting adopted new management measures for Atlantic shortfin mako in Recommendation 17-08. The measures largely focus on maximizing live releases of Atlantic shortfin mako sharks, allowing retention only in certain limited circumstances, increasing minimum size limits for retention, and improving data collection in ICCAT fisheries. ICCAT stated that the measures in the Recommendation “are expected to prevent the population from decreasing further, stop overfishing and begin to rebuild the stock” and provided for a six-month review. The Recommendation requires ICCAT parties that authorize retention to provide to ICCAT “the amount of North Atlantic shortfin mako caught and retained on board as well as dead discards during the first six months in 2018 by one month prior to the 2018 Commission annual meeting.” The Recommendation specifies that at its annual meeting in November 2018, ICCAT will review the catches from the first six months of 2018

and decide whether these measures should be modified. In 2019, the SCRS will evaluate the effectiveness of these measures in ending overfishing and beginning to rebuild the stock. The SCRS will also provide rebuilding information that reflects rebuilding timeframes of at least two mean generation times, taking into consideration the slow reproductive biology of sharks and other factors. The Recommendation provides that in 2019, ICCAT will establish a rebuilding plan that will have a high probability of avoiding overfishing and rebuilding the stock to  $B_{MSY}$  within a timeframe that takes into account the biology of the stock.

On March 2, 2018, NMFS implemented an interim final rule using emergency authority under the Magnuson-Stevens Act, 16 U.S.C. § 1855(c), to quickly implement measures in the HMS recreational and commercial fisheries consistent with Recommendation 17-08. NMFS solicited public comment on that rule through May 7, 2018. *See id.* (allowing extension of rule for not more than 186 days if public has opportunity for comment). The purpose of the emergency interim final rule was to address overfishing and to ensure that the U.S. can provide meaningful information reflective of the new measures to ICCAT for the six-month reporting requirement in the Recommendation (83 FR 8946). Management measures adopted through the interim final rule, and which remain in effect, are as follows:

- Commercial fishermen on vessels deploying pelagic longline gear, which are required to have a functional electronic monitoring system on board under current regulations, must release all live shortfin mako sharks with a minimum of harm, while giving due consideration to the safety of crew members. Commercial fishermen using pelagic longline gear can only retain a shortfin mako shark if it is dead at haulback;

- Commercial fishermen using gear other than pelagic longline commercial gear (e.g., bottom longline, gillnet, handgear, etc.) must release all shortfin mako sharks, whether they are dead or alive; and
- Recreational fishermen (fishermen with HMS Angling or Charter/Headboat permits and fishermen with Atlantic Tunas General category and Swordfish General Commercial permits when participating in a registered HMS tournament) must release any shortfin mako sharks smaller than the newly-implemented minimum size of 83 inches (210 centimeters (cm)) fork length (FL). This minimum size was an increase from the previous minimum size of 54 inches FL. This measure was different than the separate minimum size limits for males (180 cm FL) and females (210 cm FL) recommended in ICCAT Recommendation 17-08. The ICCAT stock assessment upon which the Recommendation was based had recommended an overall reduction in shortfin mako shark landings (or is it mortality?) for ICCAT parties. Consistent with this, in developing this proposed rule, NMFS analyzed minimum sizes in the context of U.S. fisheries and believes that a single minimum size limit of 83 inches (210 cm) FL is needed to address the U.S. portion of recommended mortality reduction (see **ADDRESSES** for how to get a copy of the DEIS). Furthermore, confirming the sex of a large and potentially active shortfin mako shark prior to its landing could be challenging for fishermen and may have safety implications. A single minimum size limit for the species is also simpler to implement and enforce.

The emergency measures are initially effective for 180 days (ending on August 29, 2018), and may be extended to March 3, 2019. Once finalized, this rule is intended to replace these emergency measures with long-term measures. A Notice of Intent (NOI) to prepare an EIS

for Amendment 11 of the Consolidated HMS FMP was published in the **Federal Register** on March 5, 2018 (83 FR 9255).

### *Proposed Measures*

The objectives of Draft Amendment 11 and this proposed rule are to address overfishing and establish a foundation for rebuilding the North Atlantic shortfin mako shark stock, which ICCAT will adopt in 2019 after obtaining additional scientific information, as set out in Recommendation 17-08. In a DEIS, NMFS considered alternatives to meet the objectives of the Amendment. Given the various objectives, NMFS divided alternatives into the following four broad categories for organizational clarity and to facilitate effective review: commercial fishery, recreational fishery, monitoring, and rebuilding. As summarized below, NMFS fully considered 29 alternatives within these categories and is preferring five measures, one in the commercial fishery, two in the recreational fishery (each regarding a different regulation type), one regarding monitoring, and one regarding rebuilding the stock, to meet the objectives of the rule and achieve at least a 75 percent reduction in U.S. shortfin mako shark landings consistent with the suggested level of reduction recommended in the stock assessment. The stock assessment recommends this level of reduction throughout the stock's range, and all ICCAT parties are committed to take the specified measures to achieve the needed reductions. NMFS' detailed analysis of the alternatives is provided in the DEIS for Draft Amendment 11 (see **ADDRESSES** for how to get a copy of the DEIS) and a summary is provided in the IRFA below. In developing the alternatives, NMFS considered commercial retention restrictions and the 83 inch FL recreational minimum size limit now temporarily in place through the emergency interim final rule, public comments received on that rule, other conservation and management measures that have been implemented in the HMS fisheries since 2008 that have affected shark fisheries or shark bycatch in other fisheries, and

public comments received on the Amendment 11 Issues and Options paper, including comments provided at the March 2018 HMS Advisory Panel meeting. In response to public comment on this proposed rule and the DEIS, NMFS may make changes in the final rule by modifying the proposed measures or adopting different or additional measures that were not preferred in this proposed rule.

This proposed rule also includes a minor change to the regulations specific to sharks to provide clarity and consistency throughout the regulations. Specifically, this rule proposes minor changes to § 635.30 (c)(4) to update the regulatory language to reference shark endorsements on permits and to clarify when non-commercial fishermen must retain the head, fins, and tails on a shark carcass.

#### Commercial Measures

Under this proposed rule, a commercial fisherman on a vessel with a directed or incidental shark limited access permit (LAP) could only retain shortfin mako sharks if the shark is dead at haulback, the vessel is deploying pelagic longline gear, and there is a functional electronic monitoring system on board the vessel (Alternative A2). This proposed measure is the same commercial measure instituted under the emergency interim final rule (83 FR 8946; March 2, 2018). Pelagic longline vessels would be required to promptly release in a manner that causes the least harm any shortfin mako shark that is alive at the time of haulback. Commercial fishermen using gear other than pelagic longline commercial gear (e.g., bottom longline, gillnet, handgear, etc.) would be required to release or discard all shortfin mako sharks, whether they are alive or dead at haulback.

Pelagic longline fishermen rarely target shortfin mako sharks. Instead, fishermen usually catch shortfin mako sharks incidentally while fishing for valuable target species such as tunas

and swordfish. Based on observer data, over 70 percent of the shortfin mako sharks interacted with in the pelagic longline fishery were alive at the vessel. Commercial fishermen using other gear types rarely, if ever, catch shortfin mako sharks. Since 2012, only four shortfin mako shark were observed in the bottom longline shark fishery and none were observed in the gillnet shark fishery. Combining live releases in the pelagic longline fishery and prohibiting the minimal landings from other commercial gears, NMFS expects this alternative to result in reductions in U.S. commercial landings of shortfin mako sharks by approximately 75 percent. Therefore, implementing this measure is anticipated to have direct short- and long-term minor, beneficial ecological impacts.

In addition to this preferred commercial alternative, NMFS also considered a No Action (Alternative A1) which would maintain the regulations before the emergency rule went into place (given that the emergency rule is an interim rule that will expire), along with alternatives that would modify the commercial retention restrictions (Alternative A3); use electronic monitoring and/or observers to verify the status of boarded sharks and compliance with the size limit (Alternatives A4 and A5); and prohibit commercial retention (Alternative A6). These alternatives are not preferred at this time. The No Action alternative (Alternative A1) would not implement any new management measures and thus would not reduce shortfin mako shark mortality as needed to end overfishing and begin rebuilding the stock. The alternative that allows commercial fishermen to opt in or out of an electronic monitoring program (Alternative A3) for shortfin mako sharks would be an additional burden on the fishermen that would not have any measurable conservation or management benefits. The program would also be complicated to administer and would create two separate data streams from within the fleet, as some vessels and catch would be compared and analyzed differently due to different regulatory

restrictions. The alternative that would use electronic monitoring and/or observers to verify the status of boarded sharks (live or dead) or compliance with any size limit (Alternatives A4 and A5) would place more restrictive limits on fishermen, particularly pelagic longline fishermen, than allowing retention of shortfin mako sharks that are dead at haulback under the preferred alternative, which would achieve the suggested mortality reduction without such restrictions. The alternative prohibiting commercial retention (Alternative A6) could disadvantage U.S. fishermen compared to fishermen in other ICCAT nations that implement the ICCAT recommendation verbatim. This alternative also would cause more negative economic impacts when compared to the preferred alternative, which would achieve the suggested mortality reduction.

#### Recreational Measures

NMFS is proposing two measures for the recreational fishery for sharks. Under the first proposed measure (Alternative B3), HMS recreational fishermen could only land shortfin mako sharks, male or female, that are at least 83 inches fork length (210 cm FL). As with the commercial alternative, this alternative matches the management measure implemented in the emergency interim final rule (83 FR 8946; March 2, 2018). According to length composition information from the Large Pelagics Survey, this recreational minimum size would reduce the number of shortfin mako sharks landed by approximately 83 percent in the HMS recreational fishery and would reduce the weight of landings by at least 68 percent. It is likely that the reductions in landings under this alternative would be significantly greater than what is estimated in this proposed rule and the DEIS, as the number of recreational trips targeting shortfin mako sharks would likely decrease substantially given the large increase in the overall size limit and the smaller minimum size limit (54 inches FL for other shark species). Therefore, implementing

this measure is anticipated to have direct short- and long-term minor, beneficial ecological impacts.

The second proposed measure (Alternative B9) would require the use of non-offset, non-stainless steel circle hooks when fishing recreationally for sharks in federal waters. The current regulatory requirement for such hooks applies to shark fishing in federal waters south of 41° 43' N latitude (near Chatham, Massachusetts), as implemented in Amendment 5b to the 2006 Consolidated HMS FMP. As mentioned in more detail in the DEIS, circle hooks are a bycatch mortality mitigation tool that have shown promise in a number of fisheries for various species including sharks. Most evidence suggests that circle hooks reduce shark mortality rates at-vessel and post-release without reducing catchability of target species compared to J-hooks, although the reduction in mortality rate varies by species, gear configuration, bait, and other factors. By design, circle hooks tend to hook sharks in the jaw rather than in the throat or gut (deep-hooking), thereby reducing injury and associated mortality.

For shortfin mako sharks specifically, research shows that the use of circle hooks reduces gut-hooking and increases post-release survival. French et al. (2015) examined the effects of recreational fishing techniques, including hook type, on shortfin mako sharks and found that circle hooks were more likely to hook shortfin mako sharks in the jaw compared to J-hooks. In the study, circle hooks were most likely to hook in the jaw (83 percent of the time) while J-hooks hooked in the jaw only 20 percent of the time but in the throat or gut 60 percent of the time. Jaw-hooking is correlated with increased odds of post release survival. Therefore, implementing this measure is anticipated to have direct short- and long-term minor, beneficial ecological impacts.

In addition to the proposed measure, NMFS also considered No Action (Alternative B1) which would maintain the regulations before the emergency rule went into place, along with alternatives that would prohibit recreational retention of shortfin mako sharks (Alternative B10); modify the recreational size limit by sex and seasonal retention or slot limits (Alternatives B2, B4, B5, B6, and B7); and establish a recreational tagging program (Alternative B8). A number of alternatives that were considered and/or commented on during the development of this action are not preferred at this time because they would complicate the regulations for fishermen and not meet the scientific advice for shortfin mako mortality reduction as well as the preferred alternatives. The no action alternative (Alternative B1) would not implement any new management measures and not reduce the shortfin mako shark mortality as needed to end overfishing and begin rebuilding the stock. The alternatives that would modify the recreational size limit by sex and seasonal retention or slot limits (Alternatives B2, B4, B5, B6, and B7) would not meet the objectives of this action as well as the preferred alternatives, and they would add unnecessary complexity to the recreational regulations. The alternative that would establish a landings tag program (Alternative B8) could increase the potential landings of shortfin mako sharks and cause unnecessary administrative burden in managing such a program. The alternative that considered prohibiting recreational retention entirely would be unnecessarily restrictive, have little effect on ending overfishing, and disadvantage U.S. fishermen compared to fishermen in other ICCAT nations that implement the ICCAT recommendation verbatim, which requires less restrictive measures.

#### Monitoring Measures

NMFS considered alternatives that would require mandatory reporting on vessel monitoring systems and mandatory reporting of recreational catches. However, after considering

these alternatives, NMFS is proposing the No Action alternative (Alternative C1) in relation to monitoring measures. This preferred alternative would make no changes to the current reporting requirements applicable to shortfin mako sharks in HMS fisheries, likely resulting in direct, short- and long-term, neutral ecological impacts. HMS commercial fishermen would continue to report shortfin mako catches through vessel logbooks along with dealer reporting of landings and electronic monitoring systems would be used to verify that the shortfin mako sharks were dead at haulback. HMS recreational anglers fishing from Maine to Virginia would continue to be required to report shortfin mako shark landings and releases if intercepted by the Large Pelagic Survey, and data would continue to be collected on shortfin mako shark catches by the Access Point Angler Intercept Survey, which is part of the Marine Recreational Information Program. Thus, no additional reporting requirements would be placed on HMS Angling and HMS Charter/Headboat permit holders who land shortfin mako sharks on non-tournament trips. Tournament operators would continue to be required to report landings associated with shark tournaments if their tournaments are selected for reporting.

ICCAT's SCRS recommended that member nations strengthen their monitoring and data collection efforts to monitor the future status of this stock. Consistent with the SCRS recommendation, NMFS plans to select shark tournaments for reporting using existing regulations and authorities. The regulations at 50 C.F.R. § 635.5(d) require Atlantic HMS tournament operators to register their tournaments with NMFS, and authorize NMFS to select any HMS tournaments for reporting. Currently, NMFS only selects billfish and swordfish tournaments for reporting; however in their reports, those tournaments report catches of all HMS including sharks. Thus some, but not all, shark catch information from selected billfish and swordfish tournaments are already being collected. The tournament registration category of

“pelagic shark” (which includes shortfin mako shark) makes up 95 percent of all shark tournaments and because information from the remaining 5 percent of shark tournaments will be useful for management of non-pelagic sharks, NMFS intends to select all shark tournaments for reporting. Therefore, Alternative C1, the No Action alternative, in combination with selecting all shark tournaments for reporting (which does not require any new regulations) is anticipated to have neutral ecological impacts.

In addition to the No Action (Alternative C1), NMFS also considered alternatives that would require mandatory reporting on vessel monitoring systems (Alternative C2) and mandatory reporting of recreational catches (Alternative C3). A number of alternatives that were considered and/or commented on during the development of this action are not preferred at this time because the current reporting requirements for all HMS commercial vessels are sufficient to meet the purpose and need of this action and additional potential measures would place undue burden on recreational fishermen and potentially create enforcement issues. The alternative that would implement mandatory reporting on the vessel monitoring systems (Alternative C2) would unnecessarily increase burden to HMS commercial vessels that already report in other ways (vessel logbooks, dealer reports of landings and electronic monitoring system) that are sufficient vehicles for improving data collection for shortfin mako sharks. The alternative that would implement mandatory reporting of recreational catches (Alternative C3) would unnecessarily increase the burden on recreational fishermen and monitoring of catches and compliance by NMFS because NMFS estimates of shortfin mako sharks in the recreational fishery currently have relatively high precision, as evidenced by the low percent standard error rates in the Large Pelagic Survey.

Rebuilding Measures

Under the proposed measure (Alternative D3), NMFS would take action at the international level through ICCAT to develop a rebuilding plan for shortfin mako shark stock. As part of this, NMFS would promote Magnuson-Stevens Act's rebuilding provisions and approaches and other relevant provisions of the Act. *See* 16 U.S.C. § 1812(c). This rebuilding plan would encompass the objectives set forth by ICCAT based on new scientific advice from the SCRS, which is currently scheduled to be available in 2019. Under this alternative, NMFS would continue to implement the new management measures adopted through this rulemaking for North Atlantic shortfin mako sharks in United States fisheries based on ICCAT Recommendation 17-08. Any future international management recommendations adopted by ICCAT for shortfin mako sharks would be implemented domestically. Currently, the United States contributes only 11 percent of the mortality for North Atlantic shortfin mako sharks and domestic reductions of shortfin mako shark mortality alone could not end overfishing of the entire North Atlantic stock or effectively rebuild the stock. Therefore, NMFS will continue to take action at the international level through ICCAT, the relevant international fishery management organizations. Through this process, all ICCAT members fishing on the stock participate in the establishment of effective conservation and management measures to end overfishing of and rebuild shortfin mako sharks. In the long-term, any management recommendations adopted at the international level to end overfishing of shortfin mako sharks and rebuild the stock could have direct, moderate beneficial ecological impacts on the North Atlantic shortfin mako shark population by reducing overall mortality of shortfin mako sharks and rebuilding the stock. As an active member of ICCAT, the United States will participate and advocate for an effective rebuilding plan and continue to work through ICCAT on

implementation and enforcement of effective conservation and management measures to end overfishing.

In addition to Alternative D3, NMFS also considered No Action (Alternative D1) and alternatives that would establish a domestic rebuilding plan without ICCAT (Alternative D2); establish a species-specific quota if established by ICCAT (Alternative D4); implement area management if established by ICCAT (Alternative D5); and bycatch caps (Alternative D6). The no action alternative would cause no rebuilding plan to be established. Alternative D2 (domestic rebuilding plan without ICCAT) would not be effective given the stock's range and the fact that the United States catches are only a small part of catches Atlantic-wide. Thus, this alternative would allow the stock to continue to be overfished, with overfishing continuing to occur. Given that U.S. catches of shortfin mako are small, Alternative D4 considers potential impacts of a shortfin mako shark quota if established by ICCAT as opposed to a unilateral U.S. quota. Alternative D4 is not preferred at this time, because ICCAT does not have a total allowable catch for shortfin mako shark, but instead, has measures aimed at reducing mortality and a six-month review to determine if further measures are needed. Alternative D5 (area management) is also not preferred at this time, because ICCAT has not adopted, and does not have scientific information yet to support, such a measure. The current ICCAT Recommendation calls on SCRS to provide additional scientific advice in 2019 that takes into account a spatial/temporal analysis of North Atlantic shortfin mako shark catches in order to identify areas with high interactions. Alternative D6 (bycatch caps) is not preferred, because U.S. catches of shortfin mako are small thus unilateral U.S. bycatch caps will not address overfishing and rebuilding. This alternative would thus have more economic impacts than the preferred alternative without

achieving the purpose and need of the action and would unfairly disadvantage U.S. fishermen, as ICCAT currently does not require bycatch caps.

#### *Request for Comments*

NMFS is requesting comments on the alternatives and analyses described in this proposed rule and contained in the DEIS, IRFA, and RIR for Draft Amendment 11. Comments may be submitted via <http://www.regulations.gov> or mail. Comments may also be submitted at a public hearing (see Public Hearings and Special Accommodations below). We solicit comments on this proposed rule by October 1, 2018 (see **DATES** and **ADDRESSES**).

#### *Public Hearings*

Comments on this proposed rule may be submitted via <http://www.regulations.gov> or mail and comments may also be submitted at a public hearing. NMFS solicits comments on this proposed rule by October 1, 2018. During the comment period, NMFS will hold six public hearings and one operator-assisted public hearing via conference call and webinar for this proposed rule and draft Amendment 11. The hearing locations will be physically accessible to people with disabilities. Requests for sign language interpretation or other auxiliary aids should be directed to Guý DuBeck at 301-427-8503, at least 7 days prior to the meeting. NMFS has also asked to present information on the proposed rule and draft Amendment 11 to the Caribbean, Gulf of Mexico, South Atlantic, Mid-Atlantic, and New England Fishery Management Councils, and the Atlantic and Gulf of Mexico States Marine Fisheries Commissions at their meetings during the public comment period. Please see their meeting notices for dates, times, and locations. In addition, NMFS will present at the HMS Advisory Panel meeting in September, to discuss this rulemaking. NMFS will announce the location and times of HMS Advisory Panel meeting in a future **Federal Register** notice.

**Table 1. Dates, times, and locations of upcoming public hearings and conference call.**

<b>Venue</b>	<b>Date/time</b>	<b>Meeting location</b>	<b>Location contact information</b>
Public Hearing	August 22, 2018, 5 p.m. – 8 p.m.	Corpus Christi, TX	Dr. Clotilde Garcia Public Library 5930 Brockhampton Street Corpus Christi, TX 78414
Public Hearing	August 23, 2018, 5 p.m. – 8 p.m.	Linwood, NJ	Linwood Public Library 301 Davis Avenue Linwood, NJ 08211
Public Hearing	August 28, 2018, 5 p.m. – 8 p.m.	Manteo, NC	Commissioners Meeting Room, Dare County Administration Building 954 Marshall C. Collins Drive Manteo, NC 27954
Public Hearing	August 29, 2018, 5 p.m. – 8 p.m.	Morehead City, NC	NCDMF Central District Office 5285 Highway 70 West Morehead City, NC 28557
Public Hearing	August 30, 2018, 5 p.m. – 8 p.m.	Gloucester, MA	National Marine Fisheries Service Grater Atlantic Regional Office 55 Great Republic Drive Gloucester, MA 01930
Public Hearing	August 30, 2018, 5 p.m. – 8 p.m.	St. Petersburg, FL	National Marine Fisheries Service Southeast Regional Office 263 13 <sup>th</sup> Avenue South St. Petersburg, FL 33701
Conference call	September 12, 2018, 2 p.m. – 4 p.m.		To participate in conference call, call: (888) 831-4306 Passcode: 2693278 To participate in webinar, RSVP at: <a href="https://noaaevents2.webex.com/noaaevents2/onstage/g.php?MTID=e64dda334375685e91c704ca0a5e9882f">https://noaaevents2.webex.com/noaaevents2/onstage/g.php?MTID=e64dda334375685e91c704ca0a5e9882f</a> , A confirmation email with webinar log-in information will be sent after RSVP is registered.

The public is reminded that NMFS expects participants at the public hearings to conduct themselves appropriately. At the beginning of each public hearing, a representative of NMFS will explain the ground rules (*e.g.*, alcohol is prohibited from the hearing room; attendees will be called to give their comments in the order in which they registered to speak; each attendee will have an equal amount of time to speak; and attendees should not interrupt one another). At the

beginning of the conference call, the moderator will explain how the conference call will be conducted and how and when attendees can provide comments. The NMFS representative will attempt to structure the meeting so that all attending members of the public will be able to comment, if they so choose, regardless of the controversial nature of the subject(s). Attendees are expected to respect the ground rules, and, if they do not, they may be asked to leave the hearing or may not be allowed to speak during the conference call.

### **Classification**

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

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

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

### *Regulatory Flexibility Act*

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

Section 603(b)(1) requires Agencies to describe the reasons why the action is being considered. The purpose of Amendment 11 is to develop and implement management measures to address overfishing and take steps towards rebuilding the North Atlantic shortfin mako shark stock. Consistent with the provisions of the Magnuson-Stevens Act and ATCA, NMFS proposes to modify the 2006 Atlantic HMS FMP in response to the stock status determination for shortfin mako sharks and the subsequent ICCAT Recommendation (17-08).

Section 603(b)(2) of the RFA requires Agencies to state the objective of, and legal basis for the proposed action. (See Chapter 1 of the DEIS for a full description of the objectives of this action.) Consistent with the provisions of the Magnuson-Stevens Act and ATCA, NMFS proposes to amend the 2006 Atlantic HMS FMP in response to the stock status determination for shortfin mako sharks and the subsequent ICCAT Recommendation (17-08). NMFS has identified the following objectives with regard to this proposed action:

- Address overfishing of shortfin mako sharks;
- Develop and implement management measures consistent with ICCAT Recommendation 17-08; and
- Take steps towards rebuilding the shortfin mako shark stock pending planned development of the ICCAT rebuilding plan, which is necessarily to effectively address stock rebuilding across its range

Section 603(b)(3) of the RFA requires Agencies to provide an estimate of the number of small entities to which the rule would apply. The Small Business Administration (SBA) has established size criteria for all major industry sectors in the United States, including fish harvesters. Provision is made under the SBA's regulations for an agency to develop its own

industry-specific size standards after consultation with SBA Office of Advocacy and an opportunity for public comment (see 13 CFR 121.903(c)). Under this provision, NMFS may establish size standards that differ from those established by the SBA Office of Size Standards, but only for use by NMFS and only for the purpose of conducting an analysis of economic effects in fulfillment of the agency's obligations under the RFA. To utilize this provision, NMFS must publish such size standards in the **Federal Register**, which NMFS did on December 29, 2015 (80 FR 81194, December 29, 2015). In this final rule effective on July 1, 2016, NMFS established a small business size standard of \$11 million in annual gross receipts for all businesses in the commercial fishing industry (NAICS 11411) for RFA compliance purposes. NMFS considers all HMS permit holders to be small entities because they had average annual receipts of less than \$11 million for commercial fishing. The SBA has established size standards for all other major industry sectors in the U.S., including the scenic and sightseeing transportation (water) sector (NAICS code 487210, for-hire), which includes charter/party boat entities. The SBA has defined a small charter/party boat entity as one with average annual receipts (revenue) of less than \$7.5 million.

Regarding those entities that would be directly affected by the recreational management measures, HMS Angling (Recreational) category permits are typically obtained by individuals who are not considered businesses or small entities for purposes of the RFA because they are not engaged in commercial business activity. Vessels with the HMS Charter/Headboat category permit can operate as for-hire vessels. These permit holders can be regarded as small entities for RFA purposes (i.e., they are engaged in the business of fish harvesting, are independently owned or operated, are not dominant in their field of operation, and have average annual revenues of less than \$7.5 million). Overall, the recreational alternatives would have impacts on the portion

of the 3,618 HMS Charter/Headboat permit holders who fish for or retain sharks. There were also 282 registered HMS tournaments in 2017, which could be impacted by this rule. Of those registered HMS tournaments, 72 had awards or prizes for pelagic sharks.

Regarding those entities that would be directly affected by the preferred commercial alternatives, the average annual revenue per active pelagic longline vessel is estimated to be \$187,000 based on the 170 active vessels between 2006 and 2012 that produced an estimated \$31.8 million in revenue annually. The maximum annual revenue for any pelagic longline vessel between 2006 and 2016 was less than \$1.9 million, well below the NMFS small business size standard for commercial fishing businesses of \$11 million. Other non-longline HMS commercial fishing vessels typically generally earn less revenue than pelagic longline vessels. Therefore, NMFS considers all Atlantic HMS commercial permit holders to be small entities (i.e., they are engaged in the business of fish harvesting, are independently owned or operated, are not dominant in their field of operation, and have combined annual receipts not in excess of \$11 million for all its affiliated operations worldwide). The preferred commercial alternatives would apply to the 280 Atlantic tunas Longline category permit holders, 221 directed shark permit holders, and 269 incidental shark permit holders. Of these 280 permit holders, 85 pelagic longline vessels were actively fishing in 2016 based on logbook records. Based on HMS logbook data, an average of 10 vessels that used gear other than pelagic longline gear interacted with shortfin mako sharks between 2012 and 2016, which is also equal to the 2016 number of vessels reporting shortfin mako sharks on non-pelagic longline gear.

NMFS has determined that the preferred alternatives would not likely directly affect any small organizations or small government jurisdictions defined under RFA, nor would there be disproportionate economic impacts between large and small entities. Furthermore, there would

be no disproportionate economic impacts among the universe of vessels based on gear, home port, or vessel length. More information regarding the description of the fisheries affected, and the categories and number of permit holders, can be found in Chapter 3 of the DEIS.

Section 603(b)(4) of the RFA requires Agencies to describe any new reporting, record-keeping and other compliance requirements. The action does not contain any new collection of information, reporting, or record-keeping requirements.

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

One of the requirements of an IRFA is to describe any significant alternatives to the proposed rule which accomplish the stated objectives of applicable statutes and which minimize any significant economic impact of the proposed rule on small entities. The analysis shall discuss significant alternatives such as:

1. Establishment of differing compliance or reporting requirements or timetables that take into account the resources available to small entities;
2. Clarification, consolidation, or simplification of compliance and reporting requirements under the rule for such small entities;
3. Use of performance rather than design standards; and

4. Exemptions from coverage of the rule, or any part thereof, for small entities.

These categories of alternatives are described at 5 U.S.C. 603 (c)(1)-(4)). NMFS examined each of these categories of alternatives. Regarding the first, second, and fourth categories, NMFS cannot establish differing compliance or reporting requirements for small entities or exempt small entities from coverage of the rule or parts of it because all of the businesses impacted by this rule are considered small entities and thus the requirements are already designed for small entities. NMFS does not know of any performance or design standards that would satisfy the aforementioned objectives of this rulemaking while, concurrently, complying with the Magnuson-Stevens Act. As described below, NMFS analyzed several different alternatives from different categories in this proposed rulemaking and provides rationales for identifying the preferred alternatives to achieve the desired objectives.

The alternatives considered and analyzed are described below. The IRFA assumes that each vessel will have similar catch and gross revenues to show the relative impact of the proposed action on vessels.

#### *Commercial Alternatives*

Alternative A1, the No Action alternative, would keep the non-emergency rule regulations for shortfin mako sharks. Once the emergency rule for shortfin mako sharks expires, management measures would revert back to those effective before March 2018 (e.g. no requirement to release shortfin mako sharks that are alive at haulback). Directed and incidental shark LAP holders would continue to be allowed to land and sell shortfin mako sharks to an authorized dealer, subject to current limits, including the pelagic shark commercial quota. Short-term direct economic impacts on small entities would likely be neutral since commercial

fishermen could continue to catch and retain shortfin mako sharks at a similar level and rate as the status quo.

In recent years, about 180,000 lb dressed weight (dw) of shortfin mako sharks have been landed and the commercial revenues from shortfin mako sharks have averaged approximately \$375,000 per year, which equates to approximately 1 percent of overall HMS ex-vessel revenues. Approximately 97.26 percent of shortfin mako commercial landings, based on dealer reports, were made by pelagic longline vessels. There were 85 pelagic longline vessels that were active in 2016 based on logbook reports. Therefore, the average revenue from shortfin mako shark landings per pelagic longline vessel is \$4,291 per year.

Even though pelagic longline gear is the primary commercial gear used to land shortfin mako sharks, other gear types also occasionally interact with this species. Based on HMS logbook data, an average of 10 vessels that used gear other than pelagic longline gear interacted with shortfin mako sharks between 2012 and 2016, which is also equal to the 2016 number of vessels reporting shortfin mako sharks on non-pelagic longline gear. Therefore, these vessels that used gear other than pelagic longline gear landed an average of only \$1,028 worth of shortfin mako sharks per year.

Under Alternative A2, the preferred alternative, retention of shortfin mako sharks would only be allowed if the following three criteria are met: 1) the vessel has been issued a Directed or Incidental shark LAP, 2) the shark is dead at haulback, and 3) there is a functional electronic monitoring system on board the vessel. This alternative is designed to be consistent with one of the limited provisions allowing retention of shortfin mako sharks under ICCAT Recommendation 17-08. Under the current HMS regulations, all HMS permitted vessels that fish with pelagic longline gear are already required to have a functional electronic monitoring

system (79 FR 71510; December 2, 2014) and either a Directed or an Incidental shark LAP. Vessels utilizing other gear types (i.e., gillnet or bottom longline) are not required to have an electronic monitoring system under current regulations but could choose to install one if the operator wishes to retain shortfin mako sharks that are dead at haulback and if the vessel holds a commercial shark LAP. Under this alternative, the electronic monitoring system would be used to verify the disposition of shortfin mako sharks at haulback to ensure that only sharks dead at haulback were retained.

This alternative would be consistent with ICCAT Recommendation 17-08 and would reduce the number of landings by pelagic longline vessels on average by 74 percent based on observer data from 2013-2016. A 74 percent reduction in shortfin mako landings would reduce revenues by an average of \$3,175 per vessel for the 85 activate pelagic longline vessels and would eliminate all of the \$1,028 in landing per vessel by the 10 non-pelagic longline vessels that landing shortfin mako sharks since those vessels are unlikely to have electronic monitoring systems currently installed. Those non-pelagic longline vessels would need to pay to install electronic monitoring systems if they wish to retain shortfin mako sharks, introducing an additional expense for those vessels if it there were an economic incentive for those vessels to try to retain shortfin mako sharks under this alternative. Overall, this alternative would have minor economic costs on small entities because these measures would reduce the number of shortfin mako sharks landed and sold by these fishing vessels. However, shortfin mako sharks are rarely a target species and are worth less than other more valuable target species.

Alternative A3 is similar to Alternative A2 except that the ability to retain dead shortfin mako sharks would be limited to permit holders that opt in to a program that would use the existing electronic monitoring systems, which are currently used in relation to the bluefin tuna

IBQ program, also to verify the disposition of shortfin mako sharks at haulback. In other words, this alternative would allow for retention of shortfin mako sharks that are dead at haulback by persons with a Directed or Incidental shark LAP only if permit holders opt in to enhanced electronic monitoring coverage. If the permit holder does not opt in to the enhanced electronic monitoring coverage, they could not retain any shortfin mako sharks.

The economic impacts to small entities under this alternative are expected to be similar to those under Alternative A2. Under this alternative, a portion of the pelagic longline fleet could opt out of any retention of shortfin mako sharks, resulting in a greater reduction in overall shark ex-vessel revenue for those vessels. Overall, the socioeconomic impacts associated with these reductions in revenue are not expected to be substantial, as shortfin mako sharks comprise less than one percent of total HMS ex-vessel revenues on average. Non-pelagic longline vessels would need to pay to install electronic monitoring systems if they wish to retain shortfin mako sharks, introducing an additional expense for those vessels. Due to the low commercial value of shortfin mako sharks and the high cost of electronic monitoring it is reasonable to expect that these fisheries will not install cameras and therefore will not retain shortfin mako sharks. Overall, this alternative would have minor economic costs on small entities, because these measures would reduce the number of shortfin mako sharks landed and sold by these fishing vessels, however, shortfin mako sharks are rarely a target species and are worth less than other more valuable target species.

Alternative A4 would establish a commercial minimum size of 83 inches FL (210 cm FL) for retention of shortfin mako sharks caught incidentally during fishing for other species, whether the shark is dead or alive at haulback. Based on observer data, only six percent of shortfin mako sharks caught with pelagic longline gear greater than 83 inches FL. Thus,

restricting fishermen to retaining six percent of shortfin mako sharks would represent a considerable reduction in number of shortfin mako sharks landed and in the resulting ex-vessel revenue. A 94 percent reduction in shortfin mako landings would reduce annual revenues by an average of \$4,034 per vessel for the 85 active pelagic longline vessels and would reduce annual revenues by an average of \$966 per vessel for the 10 non-pelagic longline vessels that land shortfin mako sharks. However, the overall economic impacts associated with these reductions in revenue are not expected to be substantial, as shortfin mako sharks comprise less than one percent of total HMS ex-vessel revenues on average. Additionally, the magnitude of shortfin mako landings by other gear types (e.g., bottom longline, gillnet, handgear) is very small. Overall, this alternative would have minor economic costs on small entities because these measures would reduce the number of shortfin mako sharks landed and sold by these fishing vessels, however, shortfin mako sharks are rarely a target species and are worth less than other more valuable target species.

Alternative A5 would allow fishermen to retain shortfin mako sharks caught on any commercial gear (e.g., pelagic longline, bottom longline, gillnet, handgear) provided that an observer is on board that can verify that the shark was dead at haulback. Under this alternative, electronic monitoring would not be used to verify the disposition of shortfin mako sharks caught on pelagic longline gear, but instead pelagic longline vessels could only retain shortfin mako sharks when the sharks are dead at haulback and an observer is on board.

Since only 5 percent of pelagic longline gear trips are observed, this alternative would result in a 95 percent reduction in the number of shortfin mako sharks retained on pelagic longline gear. A 95 percent reduction in shortfin mako landings would reduce annual revenues by an average of \$4,076 per vessel for the 85 active pelagic longline vessels and would reduce

annual revenues by an average of \$977 per vessel for the 10 non-pelagic longline vessels that land shortfin mako sharks. However, the overall economic impacts associated with these reductions in revenue are not expected to be substantial, as shortfin mako sharks comprise less than one percent of total HMS ex-vessel revenues on average. Additionally, the magnitude of shortfin mako landings by other gear types (e.g., bottom longline, gillnet, handgear) is very small. Overall, this alternative would have minor economic costs on small entities because these measures would reduce the number of shortfin mako sharks landed and sold by these fishing vessels, however, shortfin mako sharks are rarely a target species and are worth less than other more valuable target species.

Alternative A6 would place shortfin mako sharks on the prohibited sharks list to prohibit any catch or retention of shortfin mako sharks in commercial HMS fisheries. In recent years, about 180,000 lb dw of shortfin mako sharks have been landed and the commercial revenues from shortfin mako sharks have averaged approximately \$375,000 per year, which equates to approximately one percent of overall HMS ex-vessel revenues. That revenue would be eliminated under this alternative. Approximately 97.26 percent of shortfin mako commercial landings, based on dealer reports, were made by pelagic longline vessels. There were 85 pelagic longline vessels that were active in 2016 based on logbook reports. Therefore, the average loss in annual revenue from shortfin mako shark landings per pelagic longline vessel would be \$4,291 per year. The average loss in annual revenue from shortfin mako shark landings for vessel using other gear types would be \$1,028 per year. However, the overall economic impacts associated with these reductions in revenue are not expected to be substantial, as shortfin mako sharks comprise less than one percent of total HMS ex-vessel revenues on average. Additionally, the magnitude of shortfin mako landings by other gear types (e.g., bottom longline,

gillnet, handgear) is very small. Overall, this alternative would have minor economic costs on small entities because these measures would reduce the number of shortfin mako sharks landed and sold by these fishing vessels, however, shortfin mako sharks are rarely a target species and are worth less than other more valuable target species.

### *Recreational Alternatives*

While HMS Angling permit holders are not considered small entities by NMFS for purposes of the Regulatory Flexibility Act, Charter/Headboat permit holders and tournament operators are considered to be small entities and could be potentially impacted by the various recreational alternatives, as described below

Alternative B1, the no action alternative, would not implement any management measures in the recreational shark fishery to decrease mortality of shortfin mako sharks. This would result in no additional economic impacts on small entities associated with this fishery in the short-term.

Under Alternative B2, the minimum size limit for the retention of shortfin mako sharks would be increased from 54 inches FL to 71 inches FL for male and 83 inches FL for female shortfin mako sharks. This increase in the size limit is projected to reduce recreational landings by at least 64 percent in numbers of sharks landed, and 49 percent in the weight of sharks landed. While this alternative would not establish a shortfin mako fishing season, such a significant increase in the minimum size limit would likely result in some reduction in directed fishing effort for shortfin mako sharks.

Under Alternative B3, the preferred alternative, the minimum size limit for retention of shortfin mako sharks would be increased to 83 inches FL for both males and female sharks consistent with the measure implemented in the emergency rule. Assuming no reduction in

directed fishing effort, this increase in the minimum size limit would result in an 83 percent reduction in the number of sharks landed, and a 68 percent reduction in the weight of sharks landed. Such a large increase in the minimum size limit and associated reduction in landings is unlikely to have no effect on directed fishing effort. An 83 percent reduction in shortfin mako sharks harvested would thus reduce the percentage of directed trips harvesting them to 6 percent. At least one tournament directed at shortfin mako sharks in the Northeast has chosen to cancel its 2018 event due to the more stringent current 83 inches FL minimum size limit. Tournaments account for over half of directed recreational trips for shortfin mako sharks, and 77 percent of them in the month of June when effort is at its highest. This could result in a significant reduction in directed fishing trips for shortfin mako sharks, thus leading to moderate adverse economic impacts on some charter/headboats and tournament operators.

Under Alternative B4, recreational HMS permit holders would only be allowed to retain male shortfin mako sharks that measure at least 71 inches FL and female shortfin mako sharks that measure at least 108 inches FL. Assuming no reduction in directed fishing effort, this increase in the minimum size limit would result in a 76 percent reduction in the number of sharks landed, and a 72 percent reduction in the weight of sharks landed. A 76 percent reduction in shortfin mako sharks harvested would thus reduce the percentage of directed trips harvesting them to approximately 9 percent. This could result in a significant reduction in directed fishing trips for shortfin mako sharks, thus leading to moderate adverse economic impacts on some charter/headboats and tournament operators.

Under Alternative B5, recreational HMS permit holders would only be allowed to retain male shortfin mako sharks that measure at least 71 inches FL and female shortfin mako sharks that measure at least 120 inches FL. Assuming no reduction in directed fishing effort, this

increase in the size limit would result in a 76 percent reduction in the number of sharks landed, and a 73 percent reduction in the weight of sharks landed. A 76 percent reduction in shortfin mako sharks harvested would thus reduce the percentage of directed trips harvesting them to 8.6 percent. This could result in a significant reduction in directed fishing trips for shortfin mako sharks, thus leading to moderate adverse economic impacts on some charter/headboats and tournament operators.

Under Alternative B6a, the minimum size limit for the retention of shortfin mako sharks would be increased from 54 inches FL to 71 inches FL for male and 83 inches FL for female shortfin mako sharks, and a shortfin mako fishing season would be established from May through October. The fishing season established under this alternative would have little to no effect on shortfin mako fishing activity in the Northeast, but may reduce fishing effort in the South Atlantic and Gulf of Mexico regions; however, a lack of data on targeted trips for shortfin mako sharks in this region makes any assessment of potential socioeconomic impacts difficult. However, this combination of increase in the size limit and fishing season is projected to reduce recreational landings by at least 64 percent in numbers of sharks landed, and 49 percent in the weight of sharks landed in the Northeast. A 64 percent reduction in shortfin mako sharks harvested would thus reduce the percentage of directed trips harvesting them to 13 percent. This reduction on directed trips could lead to moderate adverse economic impacts on some charter/headboats and tournament operators.

Under Alternative B6b, NMFS would establish a three-month fishing season for shortfin mako sharks spanning the summer months of June through August. This season would be combined with a 71 inches FL minimum size limit for males and 100 inches FL for females. Based on estimates from the Large Pelagics Survey, on average 475 directed trips are taken for

shortfin mako sharks each September and October, representing approximately 10 percent of all annual directed trips. No registered HMS tournaments held in September and October target sharks exclusively, so it is highly unlikely this alternative would result in the rescheduling of any tournaments due to the fishing season. It is much more likely that directed fishing effort would be affected by the increases in the minimum size limits. Assuming this increase in the size limit has minimal effect on fishing effort directly towards shortfin mako sharks within the season, this combination of season and increase in the size limit should result in a 78 percent reduction in the number of sharks landed, and a 76 percent reduction in the weight of sharks landed. This reduction could result in a significant reduction in directed fishing trips for shortfin mako sharks, thus leading to moderate adverse economic impacts on some charter/headboat operators.

Under Alternative B6c, NMFS would establish a two-month fishing season for shortfin mako sharks for the months of June and July. This season would be combined with a 71 inches FL minimum size limit for males and 90 inches FL for females. Based on estimates from the Large Pelagics Survey, on average 1,264 directed trips are taken for shortfin mako sharks each August through October, representing approximately 26 percent of all annual directed trips. Only two registered HMS tournaments held in August through October target sharks exclusively, one out of New York that primarily targets thresher sharks and one out of Florida where participants fish exclusively from shore. Thus, it is highly unlikely this alternative would result in the rescheduling of any tournaments due to the fishing season. It is likely that directed fishing effort would also be affected by the increases in the minimum size limits. Assuming this increase in the size limit has minimal effect on fishing effort directly towards shortfin mako sharks within the season, this combination of season and increase in the size limit should result in a 78 percent reduction in the number of sharks landed, and a 76 percent reduction in the

weight of sharks landed. Such a large increase in the size limit and associated reduction in landings is unlikely to have no effect on directed fishing effort. A 78 percent reduction in shortfin mako sharks harvested would thus reduce the percentage of directed trips harvesting them to 8 percent. This reduction in directed trips could lead to moderate adverse economic impacts on some charter/headboats and tournament operators.

Under Alternative B6d, NMFS would establish a one-month fishing season for shortfin mako sharks for the month of June only. This season would be combined with a 71 inches FL minimum size limit for males and 83 inches FL for females. Based on estimates from the Large Pelagics Survey, on average 2,435 directed trips are taken for shortfin mako sharks each July through October, representing approximately 51 percent of all annual directed trips.

Additionally, there are seven registered HMS tournaments held in July through October that target sharks exclusively, including three of four tournaments held in the state of Rhode Island, and the only tournament in Massachusetts to target sharks exclusively. It is likely that directed fishing effort would also be affected by the increases in the minimum size limits. Assuming this increase in the size limit has minimal effect on fishing effort directly towards shortfin mako sharks within the season, this combination of season and increase in the size limit should result in a 79 percent reduction in the number of sharks landed, and a 78 percent reduction in the weight of sharks landed. Such a large increase in the size limit and associated reduction in landings is unlikely to have no effect on directed fishing effort. A 79 percent reduction in shortfin mako sharks harvested would thus reduce the percentage of directed trips harvesting them to 8 percent. This reduction in directed trips could lead to moderate adverse economic impacts on some charter/headboats and tournament operators.

Under Alternative B6e, NMFS would establish a process and criteria for determining season dates and minimum size limits for shortfin mako sharks on an annual basis through inseason actions. This process would be similar to how the agency sets season opens and retention limits for the shark commercial fisheries and the Atlantic Tunas General category fishery. NMFS would review data on recreational landings, catch rates, and effort levels for shortfin mako sharks in the previous years, and establish season dates and minimum size limits that would be expected to achieve the reduction targets established by ICCAT, and the objectives of the HMS fisheries management plan. This alternative would also allow NMFS to minimize adverse economic impacts to the HMS recreational fishery by allowing for adjustments to the season and size limits based on observed reductions and redistribution of fishing effort resulting from measures implemented in previous years.

Under Alternative B7, NMFS would implement a “slot limit” for shortfin mako sharks in the recreational fishery. Under a slot limit, recreational fishermen would only be allowed to retain shortfin mako sharks within a narrow size range (e.g., between 71 and 83 inches FL) with no retention above or below that slot. Assuming no reduction in directed fishing effort, this alternative would be expected to result in similar reductions in landings as other alternatives analyzed here. While this alternative would not establish a shortfin mako fishing season, as described above in earlier alternatives, such a significant increase in the size limit would likely result in some reduction in directed fishing effort for shortfin mako sharks. This reduction in effort may be further exacerbated by the complicated nature of slot limits regulations. Similar to Alternative B2, there are two factors that might minimize reductions in fishing effort (harvested shortfin mako sharks peaks between 71 and 77 inches FL and shifting focus to other HMS species). The amount of effort reduction by recreational fishermen would depend on how much

HMS anglers and tournaments are satisfied to practice catch-and-release fishing for sub-legal shortfin mako sharks or shift their fishing effort to other species.

Under Alternative B8, NMFS would establish a landings tag requirement and a yearly limit on the number of landings tags assigned to a vessel, for shortfin mako sharks over the minimum size limit. This requirement would be expected to negatively affect fishing effort. An increase in the minimum size limit and a yearly cap on landings for vessels would reduce effort drastically, while maintaining some opportunity for the recreational fleet. This effort reduction would adversely affect the charter fleet the most by limiting the number of trips that they could land shortfin mako sharks each year. This effort reduction may also affect their ability to book trips. At least one tournament directed at shortfin mako sharks in the Northeast has chosen to cancel its 2018 event due to the more stringent current 83 inches FL minimum size limit. By excluding tournaments from a landings tag requirement there may be a direct beneficial economic impact for tournaments, as this would be an additional opportunity, beyond their tags, to land shortfin mako sharks for permit holders.

Alternative B9, a preferred alternative, would expand the requirement to use non-offset, non-stainless steel circle hook by all HMS permit holders with a shark endorsement when fishing for sharks recreationally, except when fishing with flies or artificial lures, to all waters managed within HMS management division. Currently, this requirement is in place for all Federally managed waters south of 41° 43' N latitude (near Chatham, Massachusetts), but this alternative would remove the boundary line, requiring fishermen in all areas to use circle hooks. Recreational shark fishermen north of Chatham, Massachusetts would need to purchase circle hooks to comply with this requirement, although the cost is modest. Additionally, it is possible that once the circle hook requirement is expanded, fishermen in the newly impacted area could

find reduced catch rates of sharks including shortfin mako sharks. If reduced catch rates are realized, effort in the recreational shark fishery, including the for-hire fleet, could be impacted by reduced number of trips or reduced demand for chartered trips.

Alternative B10 would place shortfin mako sharks on the prohibited sharks list to prohibit the retention of shortfin mako sharks in recreational HMS fisheries. HMS permit holders would be prohibited from retaining or landing shortfin mako sharks recreationally. In recreational fisheries, recreational fishermen would only be authorized to catch and release shortfin mako sharks. A prohibition on the retention of shortfin mako sharks is likely to disincentives some portion of the recreational shark fishery, particularly those individuals that plan to target shortfin mako sharks. Businesses that rely of recreational shark fishing such as tournament operators and charter/headboats may experience a decline in demand resulting in adverse economic impacts.

#### *Monitoring Alternatives*

Alternative C1, the preferred alternative, would make no changes to the current reporting requirements applicable to shortfin mako sharks in HMS fisheries. Since there would be no changes to the reporting requirements under this alternative, NMFS would expect fishing practices to remain the same and direct economic impacts in small entities to be neutral in the short-term.

Under Alternative C2, NMFS would require vessels with a directed or incidental shark LAP to report daily the number of shortfin mako sharks retained and discarded dead, as well as fishing effort (number of sets and number of hooks) on a vessel monitoring system (VMS). A requirement to report shortfin mako shark catches on VMS for vessels with a shark LAP would be an additional reporting requirement for those vessels on their existing systems. For other commercial vessels that are currently only required to report in the HMS logbook, the

requirement would mean installing VMS to report dead discards of shortfin mako and fishing effort.

If a vessel has already installed a type-approved enhanced mobile transmitting unit (E-MTU) VMS unit, the only expense would be monthly communication service fees, which they may already be paying if the vessel is participating in a Council-managed fishery. Existing regulations require all vessel operators with E-MTU VMS units to provide hail out/in declarations and provide location reports on an hourly basis at all times while they are away from port. In order to comply with these regulations, vessel owners must subscribe to a communication service plan that includes an allowance for sending similar declarations (hail out/in) describing target species, fishing gear possessed, and estimated time/location of landing using their E-MTU VMS. Given that most shortfin mako sharks are incidentally caught by pelagic longline vessels that are already required to have an E-MTU VMS system onboard, adverse economic impacts are not expected. If vessels with a shark LAP do not have an E-MTU VMS unit, direct, economic costs are expected as a result of having to pay for the E-MTU VMS unit (approximately \$4,000) and a qualified marine electrician to install the unit (\$400). VMS reporting requirements under this alternative could potentially provide undue burden to HMS commercial vessels that already report on catches, landings, and discards through vessel logbooks, dealer reports, and observer reports.

Alternative C3 would implement mandatory reporting of all recreational interactions (landed and discarded) of shortfin mako sharks in HMS fisheries. Recreational HMS permit holders would have a variety of options for reporting shortfin mako shark landings including a phone-in system, internet website, and/or a smartphone app. HMS Angling and Charter/Headboat permit holders currently use this method for required reporting of each

individual landing of bluefin tuna, billfish, and swordfish within 24 hours. NMFS has also maintained a shortfin mako shark reporting app as an educational tool to encourage the practice of catch-and-release. Additionally, the potential burden associated with mandatory landings reports for shortfin mako sharks would be significantly reduced under the increased minimum size limits being considered in this rulemaking, although it would still represent an increased burden over current reporting requirements. While HMS Angling permit holders are not considered small entities by NMFS for purposes of the Regulatory Flexibility Act, Charter/Headboat permit holders are considered to be small entities and would be potentially impacted by this alternative.

#### *Rebuilding Alternatives*

Under Alternative D1, NMFS would not establish a rebuilding plan for shortfin mako sharks and would maintain the current recreational and commercial shark fishing regulations that pertain to shortfin mako sharks in U.S. fisheries. There would likely be no direct short-term impact on small entities from this alternative as there would be no change in fishing effort or landings of shortfin mako sharks that would impact revenues generated from the commercial and recreational fisheries.

Under Alternative D2, NMFS would establish a domestic rebuilding plan for shortfin mako sharks unilaterally (i.e., without ICCAT). While such an alternative could avoid overfishing shortfin mako sharks in the United States by changing the way that the U.S. recreational and commercial fisheries operate, such a plan could not effectively rebuild the stock, since U.S. catches are only 11 percent of the reported catch Atlantic-wide. Such an alternative would be expected to cause short- and long-term direct economic impacts.

Under Alternative D3, the preferred alternative, NMFS would take preliminary action toward rebuilding by adopting measures to end overfishing to establish a foundation for a rebuilding plan. NMFS would then take action at the international level through ICCAT to develop a rebuilding plan for shortfin mako sharks. ICCAT is planning to establish a rebuilding plan for shortfin mako sharks in 2019, and this rebuilding plan would encompass the objectives set forth by ICCAT based on scientific advice from the SCRS. This alternative would not result in any changes to the current recreational and commercial domestic regulations for shortfin mako sharks in the short-term. There would likely be no direct short-term impact on small entities from this alternative as there would be no change in fishing effort or landings of shortfin mako sharks that would impact revenues generated from the commercial and recreational fisheries. Management measures to address overfishing of shortfin mako sharks could be adopted in 2019. These measures could change the way that the U.S. recreational and commercial shortfin mako shark fishery operates, which could cause long-term direct economic impacts. Any future action to implement international measures would be analyzed in a separate rulemaking.

Under Alternative D4, NMFS would remove shortfin mako sharks from the commercial pelagic shark management group and would implement a species-specific quota for shortfin mako sharks as established by ICCAT, which would include both commercial and recreational catches as well as dead discards. In addition, NMFS would establish a new commercial pelagic shark species quota for common thresher and oceanic whitetip sharks based on recent landings. The 2017 ICCAT stock assessment indicated that the North Atlantic population of shortfin mako sharks is overfished and experiencing overfishing. In November 2017, ICCAT adopted management measures (Recommendation 17-08) to address the overfishing determination, but did not recommend a total allowable catch (TAC) necessary to stop overfishing of shortfin mako

sharks. Therefore, it is difficult at this time to determine how setting a species-specific quota for shortfin mako sharks would affect commercial and recreational fishing operations. However, this species-specific quota may provide long-term direct, minor adverse economic impacts if ICCAT established a TAC for the United States that is well below the total average harvest by the United States (i.e., 379 mt whole weight (ww) or 195 mt dw) or below the current annual commercial quota for common thresher, oceanic whitetip, and shortfin mako (488 mt dw) as it could potentially limit the amount of harvest for fishermen. Short-term direct socioeconomic impacts would be neutral for Alternative D4 because initially there would be no reduction in fishing effort and practices.

Under Alternative D5, NMFS would take steps to implement area-based management measures domestically if such measures are established by ICCAT. Recommendation 17-08 calls on the SCRS to provide additional scientific advice in 2019 that takes into account a spatial/temporal analysis of North Atlantic shortfin mako shark catches in order to identify areas with high interactions. Without a specific area to analyze at this time, the precise impacts with regard to impacts on commercial and recreational fishery operations cannot be determined. Implementing area management for shortfin mako sharks, if recommended by the scientific advice, could lead to a reduction in localized fishing effort, which would likely have adverse economic impacts for small entities that land shortfin mako sharks.

Under Alternative D6, NMFS would establish bycatch caps for fisheries that interact with shortfin mako sharks. This alternative would impact the HMS pelagic longline and shark recreational fisheries similar to Alternative D4. However, this alternative could also impact non-HMS fisheries by closing those fisheries if the bycatch cap were reached. This alternative could lead to short-term adverse impacts since the bycatch caps could close fisheries if they are

reached until those fishermen could modify fishing behavior to avoid shortfin mako sharks (even in fisheries where shortfin mako sharks are rarely, if ever, seen) and reduce interactions. In the long-term, this alternative would have neutral impacts as the vessels would avoid shortfin mako sharks. The impacts to small businesses are expected to be neutral in the short and long-term as their businesses would not change.

**List of Subjects in 50 CFR Part 635**

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

Dated: July 19, 2018.

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Samuel D. Rauch, III,

Deputy Assistant Administrator for Regulatory Programs,

National Marine Fisheries Service.

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

**PART 635—ATLANTIC HIGHLY MIGRATORY SPECIES**

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

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

2. Revise definition for “FL (fork length)” to read as follows:

**§ 635.2 Definitions.**

\* \* \* \* \*

*FL (fork length)* means the straight-line measurement of a fish from the midpoint of the anterior edge of the fish to the fork of the caudal fin. The measurement is not made along the curve of the body.

\* \* \* \* \*

3. In § 635.20, remove paragraph (e)(7), lift the suspension on paragraphs (e)(2) and (e)(6), and revise paragraphs (e)(2) and (e)(6) to read as follows:

**§ 635.20 Size limits.**

\* \* \* \* \*

(e) \* \* \*

(2) All sharks, except as otherwise specified in paragraphs (e)(1) through (e)(6) of this section, landed under the recreational retention limits specified at § 635.22(c)(2) must be at least 54 inches (137 cm) FL.

\* \* \* \* \*

(6) All North Atlantic shortfin mako sharks landed under the recreational retention limits specified at § 635.22(c)(2) must be at least 83 inches (210 cm) fork length.

\* \* \* \* \*

4. In § 635.21, revise paragraphs (a)(4), (c)(1)(iv), (f)(2) and (3), and (k)(1) and (2) to read as follows:

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

(a) \* \* \*

(4) Any person on board a vessel that is issued a commercial shark permit must release all shortfin mako sharks, whether alive or dead, caught with any gear other than pelagic longline gear.

\* \* \* \* \*

(c) \* \* \*

(1) \* \* \*

(iv) Has pelagic longline gear on board, persons aboard that vessel are required to promptly release in a manner that causes the least harm any shortfin mako shark that is alive at the time of haulback. Any shortfin mako shark that is dead at the time of haulback may be retained provided the electronic monitoring system is installed and functioning in compliance with the requirements at § 635.9.

\* \* \* \* \*

(f) \* \* \*

(2) A person on board a vessel that has been issued or is required to be issued a permit with a shark endorsement under this part and who is participating in an HMS registered tournament that bestows points, prizes, or awards for Atlantic sharks must deploy only non-offset, corrodible circle hooks when fishing for, retaining, possessing, or landing sharks, except when fishing with flies or artificial lures.

(3) A person on board a vessel that has been issued or is required to be issued an HMS Angling permit with a shark endorsement or an HMS Charter/Headboat permit with a shark endorsement must deploy only non-offset, corrodible circle hooks when fishing for, retaining, possessing, or landing sharks, except when fishing with flies or artificial lures

\* \* \* \* \*

(k) \* \* \*

(1) A person on board a vessel that has been issued or is required to be issued a permit with a shark endorsement under this part and who is participating in an HMS registered tournament that bestows points, prizes, or awards for Atlantic sharks must deploy only non-offset, corrodible circle hooks when fishing for, retaining, possessing, or landing sharks, except when fishing with flies or artificial lures.

(2) A person on board a vessel that has been issued or is required to be issued an HMS Angling permit with a shark endorsement or a person on board a vessel with an HMS Charter/Headboat permit with a shark endorsement must deploy only non-offset, corrodible circle hooks when fishing for, retaining, possessing, or landing, except when fishing with flies or artificial lures.

\* \* \* \* \*

5. In § 635.24, remove paragraphs (a)(4)(v) and (vi), lift the suspension for paragraphs (a)(4)(i) and (iii), and revise paragraphs (a)(4)(i) and (iii) to read as follows:

**§ 635.24 Commercial retention limits for sharks, swordfish, and BAYS tunas.**

\* \* \* \* \*

(a) \* \* \*

(4) \* \* \*

(i) A person who owns or operates a vessel that has been issued a directed shark LAP may retain, possess, or land pelagic sharks if the pelagic shark fishery is open per §§ 635.27 and 635.28. Shortfin mako sharks may only be retained by persons using pelagic longline gear, and only if each shark is dead at the time of haulback per § 635.21 (c)(1).

\* \* \* \* \*

(iii) Consistent with paragraph (a)(4)(ii) of this section, a person who owns or operates a vessel that has been issued an incidental shark LAP may retain, possess, land, or sell no more than 16 SCS and pelagic sharks, combined, per vessel per trip, if the respective fishery is open per §§ 635.27 and 635.28. Of those 16 SCS and pelagic sharks per vessel per trip, no more than 8 shall be blacknose sharks. Shortfin mako sharks may only be retained by persons using pelagic longline gear, and only if each shark is dead at the time of haulback per § 635.21(c)(1).

\* \* \* \* \*

6. In § 635.30, paragraph (c)(4) is revised to read as follows:

**§635.30 Possession at sea and landing.**

\* \* \* \* \*

(c) \* \* \*

(4) Persons aboard a vessel that has been issued or is required to be issued a permit with a shark endorsement must maintain a shark intact through landing and offloading with the head, tail, and all fins naturally attached. The shark may be bled and the viscera may be removed.

\* \* \* \* \*

7. In § 635.71, revise paragraphs (d)(22), (23), (27), (28), and (29) to read as follows:

**§635.71 Prohibitions.**

\* \* \* \* \*

(d) \* \* \*

(22) Except when fishing only with flies or artificial lures, fish for, retain, possess, or land sharks without deploying non-offset, corrodible circle hooks when fishing at a registered recreational HMS fishing tournament that has awards or prizes for sharks, as specified in § 635.21(f) and (k).

(23) Except when fishing only with flies or artificial lures, fish for, retain, possess, or land sharks without deploying non-offset, corrodible circle hooks when issued an Atlantic HMS Angling permit or HMS Charter/Headboat permit with a shark endorsement, as specified in § 635.21(f) and (k).

\* \* \* \* \*

(27) Retain, land, or possess a shortfin mako shark that was caught with gear other than pelagic longline gear as specified at § 635.21(a).

(28) Retain, land, or possess a shortfin mako shark that was caught with pelagic longline gear and was alive at haulback as specified at § 635.21(c)(1).

(29) As specified at § 635.21(c)(1), retain, land, or possess a shortfin mako shark that was caught with pelagic longline gear when the electronic monitoring system was not installed and functioning in compliance with the requirements at § 635.9.

\* \* \* \* \*