Issues and Options: Amendment 13

to the

2006 Consolidated Atlantic Highly Migratory Species Fishery Management Plan

Highly Migratory Species Management Division
May 2019

Purpose of this Document

This document was prepared by the National Marine Fisheries Service (NMFS) for use in 2019 for scoping of significant issues related to the management of bluefin tuna, a public process during which NMFS will consider a range of issues and objectives, as well as possible options for future Atlantic bluefin tuna (bluefin) management. The management options presented in this document are not intended to be comprehensive with respect to potential modifications to the regulations, but are a basis for further discussion and refinement of the potential objectives and measures. Public comment should be submitted via www.regulations.gov or mail. If submitting comments by www.regulations.gov, search for: NOAA-NMFS-2019-0042, click the "Comment Now!" icon, complete the required fields, and enter or attach your comments. If submitting comments by mail, the address is: NOAA Greater Atlantic Regional Fisheries Office, Highly Migratory Species Management Division – Amendment 13, 55 Great Republic Drive, Gloucester, MA 01930. NMFS is requesting comments on the management options described in this issues and options paper and other relevant options that would meet the purpose and need for this action.

The contents of this document are based on the preliminary findings of the Draft Three-Year Review of the Individual Bluefin Quota (IBQ) Program (Draft Three-Year Review), and suggestions and discussions on the management of Atlantic bluefin tuna since implementation of Amendment 7 to the 2006 Consolidated Atlantic Highly Migratory Species (HMS) Fishery Management Plan (FMP) (Amendment 7). The range of topics under consideration focus on the bluefin tuna fisheries managed by NMFS' Atlantic HMS Management Division and include the Atlantic and Gulf of Mexico incidental pelagic longline fishery and the directed bluefin fisheries. This document is based on written and oral communication from members of the HMS Advisory Panel, fisheries participants, interested organizations, members of the public, and NMFS. Given the substantial amount of existing relevant information (e.g., Amendment 7, subsequent regulatory actions, and the Draft Three-Year Review), the issues and options paper for this FMP amendment begins with a brief summary of the relevant fisheries and their management measures, followed by an outline of potential management measures for these fisheries. Additional background information may be referenced in previously developed NMFS documents, as identified throughout the text of this issues and options paper.

Structure of this Document

Each management option under consideration is briefly characterized via a description of the option, justification for considering the option, and a list of initial pros and cons for implementing the option. The list of pros and cons should not be considered an exhaustive list. The pros and cons are intended to facilitate discussion of the merits of each management option. Interested members of the public are encouraged to provide specific suggestions and recommendations on the options, any additional pros and cons, or other options that NMFS should consider. The reader can consider the management options together, because multiple options can be analyzed and further developed through the regulatory process.

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List of Acronyms

ATCA	Atlantic Tunas Convention Act
BAYS	Bigeye, Albacore, Yellowfin, and Skipjack tuna (i.e., the BAYS tunas)
BFT	Bluefin tuna
CPUE	Catch-per-unit-effort
EIS	Environmental Impact Statement
FMP	Fishery Management Plan
GRA	Gear Restricted Area
HMS	Highly Migratory Species
IBQ	Individual Bluefin Quota
ICCAT	International Commission for the Conservation of Atlantic Tunas
LAP	Limited Access Permit
MMPA	Marine Mammal Protection Act
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
PLL	Pelagic Longline
POP	Pelagic Observer Program
VMS	Vessel Monitoring System

Background

The National Marine Fisheries Service (NMFS) is considering changes to the management of Atlantic Highly Migratory Species (HMS), with a focus on management measures for bluefin tuna. NMFS is considering changes based in part on an evaluation of the first three years of the Individual Bluefin Quota (IBQ) Program operation; new data; public and HMS Advisory Panel suggestions; changing conditions in relevant fisheries; and in response to NOAA policies and mandates, including the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) and the Atlantic Tunas Convention Act (ATCA). The general scope of management measures under consideration include those applicable to the pelagic longline fishery, which catches bluefin incidentally during directed fishing operations for other HMS species (e.g., other tunas and swordfish); the directed bluefin tuna (bluefin) fisheries, including the Atlantic tunas purse seine fishery; and bluefin allocations among and within quota categories.

This document does not include measures pertaining to weak hooks in the Gulf of Mexico or closed area/gear restricted areas that were instituted to help manage incidental bluefin tuna catch in the pelagic longline fishery, because changes to those regulations are being considered through a separate, ongoing regulatory action. A proposed rule considering the continued need for such area-based and weak hook gear measures, given implementation of the IBQ Program and its effectiveness in reducing and managing bluefin interactions in the longline fishery, is planned for publication during spring 2019. NMFS published an NOI to prepare a draft environmental impact analysis for this action on March 2, 2018 (83 FR 8969), and held scoping meetings during March and April of 2018. A draft environment impact analysis was published on May 10, 2019.

A second action is currently in the scoping phase and will consider options to conduct research in a broader category of areas currently closed to or restricting fishing for HMS. Such research will help NMFS determine whether such management measures need to be updated or changed.

The objectives and potential measures listed in this document are intended to be catalysts for scoping, and should not be viewed as the entire range of options that NMFS could consider. This document is intended to introduce several management options that could be considered for bluefin fisheries and to engage the public as part of the rulemaking process.

Bluefin Fishery Management Overview

This section provides a brief description of relevant current management measures. A more complete description of the history of the current management measures is in the Appendix of this document as a reference for context. Atlantic highly migratory species (HMS) are managed under the dual authority of the Magnuson Stevens Fishery Conservation and Management Reauthorization Act (Magnuson-Stevens Act) and the Atlantic Tunas Convention Act (ATCA). Under the Magnuson-Stevens Act, the National Marine Fisheries Service (NMFS) must, consistent with ten National Standards, manage fisheries to maintain optimum yield on a continuing basis while preventing overfishing. Under ATCA, the Secretary of Commerce is required to promulgate regulations as may be necessary and appropriate to carry out recommendations by the International Commission for the Conservation of Atlantic Tunas (ICCAT).

Bluefin Tuna Stock

The bluefin stock relevant to Atlantic HMS fisheries is the western Atlantic stock. ICCAT's Standing Committee on Research and Science conducts assessments of the western and eastern Atlantic bluefin tuna stocks, with the most recent stock assessment occurring in 2017. The assessment of the western Atlantic bluefin stock indicated similar historical trends in abundance as in previous assessments, with an observed increase since 2004. Based on the stock assessment, and applying domestic stock status criteria, NMFS determined that the western Atlantic stock's status should be changed from "overfished" to "unknown" and that the status of "not subject to overfishing" should be maintained.

Bluefin Management

Quota Management

The bluefin fishery is a quota-managed fishery, and the annual U.S. bluefin quota is established by binding recommendations of the International Commission for the Conservation of Atlantic Tunas (ICCAT). The U.S. bluefin quota established through that process is implemented domestically through rulemaking and allocated among seven quota categories, including the Longline category. The overall quota is designed to appropriately conserve and manage the bluefin stock, and a suite of management measure ensure that catch is kept to the required level. The amount of quota allocated to each category is expressed as a percentage of the U.S. quota, as first established in the Fishery Management Plan for Atlantic Tunas, Swordfish, and Sharks (1999 FMP) based on landings from 1983-1991 and continued unchanged in the 2006 Consolidated HMS FMP. The quota categories and associated percentages are shown in Table 1.

In Amendment 7 (79 FR 7150; December 2, 2014), NMFS altered the allocation process, given that the incidental Longline category had been exceeding its allocated quota. Quota allocations were adjusted, with each category effectively "contributing" to the Longline category, another step in the quota allocation calculation. A full explanation of the historical basis for the 68 mt amount (in the third column below) that related to dead discards, is contained in Amendment 7.

Table 1. Bluefin Quota Categories, Allocation Percentages, and 2019 Baseline Quota

Quota Category	Allocation Percentage (applied after subtraction of 68 mt from baseline quota)	*Current (2019) Baseline Quota (mt)
General	47.1	555.7
Harpoon	3.9	46.0
Purse seine	18.6	219.5
Longline	8.1	163.6
Trap	0.1	1.2
Angling	19.7	232.4
Reserve	2.5	29.5
NED	NA	25
Totals	100 percent	1,272.9

*Based on allocation percentage, total U.S. baseline quota, and incorporating the contributions to the 68 mt.

Permit Categories

All owners/operators of vessels (commercial, charter/headboat, or recreational) fishing for regulated Atlantic tunas in the management area must obtain an Atlantic tunas or Atlantic HMS vessel permit. Atlantic tunas permits are issued in five commercial categories: General, Harpoon, Purse Seine, Longline, and Trap. Atlantic HMS permits are issued in two categories: Recreational Angling and Charter/Headboat. Only one permit category may be assigned to a vessel. All fish dealers purchasing regulated Atlantic tunas from vessels holding an Atlantic tunas permit or an Atlantic HMS vessel permit must obtain an Atlantic tunas dealer permit. Retention in all categories is conditioned on permit terms and compliance with applicable regulations. The permit categories include both limited access and open access permits.

Pelagic Longline Fishery and the Individual Bluefin Quota Program

Amendment 7 was developed to reduce and account for bluefin dead discards in all categories; optimize fishing opportunities in all directed categories within the U.S. quota; enhance reporting and monitoring; and adjust other management measures. Four components of Amendment 7 directly affected the U.S. pelagic longline fishery: (1) Two new or modified pelagic longline Gear Restricted Areas (GRAs); (2) an IBQ Program; (3) mandatory electronic monitoring (EM) of pelagic longline gear at haulback; and (4) catch reporting of each pelagic longline set using vessel monitoring systems (VMS).

The Amendment 7 objectives were:

- Prevent overfishing and rebuild bluefin tuna, achieve on a continuing basis optimum yield, and minimize bluefin bycatch to the extent practicable by ensuring that domestic bluefin tuna fisheries continue to operate within the overall TAC set by ICCAT consistent with the existing rebuilding plan.
- Optimize the ability for all permit categories to harvest their full bluefin quota allocations; account for mortality associated with discarded bluefin in all categories. maintain flexibility of the regulations to account for the highly variable nature of the bluefin fishery; and maintain fairness among permit/quota categories;
- Reduce dead discards of bluefin and minimize reductions in target catch in both directed and incidental bluefin fisheries, to the extent practicable.
- Improve the timeliness and quality of catch data through enhanced reporting and monitoring to ensure that landings and dead discards do not exceed the quota and to improve accounting for all sources of fishing mortality.
- Adjust other aspects of the 2006 Consolidated HMS FMP as necessary and appropriate.

An important aspect of the measures adopted in Amendment 7 is the IBQ Program. The IBQ Program stems from the nature of the pelagic longline fishery. Directed fishing on bluefin with pelagic longline gear is prohibited, but the fishery incidentally catches bluefin as bycatch, and the Longline quota category accounts for that bycatch. The IBQ Program requires vessels fishing with pelagic longline gear to account for all their incidental bluefin catch (whether retained or discarded dead) using quota allocation available to the individual vessel, either through allocation distributed to quota shareholders or leased through the IBQ system. This program was intended to reduce bluefin interactions and dead discards in the pelagic longline fishery by increasing accountability for bluefin catch (landings and dead discards) by individual vessels; provide strong incentives to reduce interactions with bluefin and to increase flexibility for vessels to continue to operate profitably; accommodate different fishing practices within the pelagic longline fleet; and create new potential for revenue (from a market for leasable IBQ allocation). In Amendment 7, eligible permits were assigned an IBQ share in one of three "tiers," which provided the vessel a percentage of the overall Longline quota ("quota share"). Shareholders are eligible to receive annual associated quota allocations, provided the eligible permits are associated with a vessel. Shareholders as well as Atlantic Tunas Longline permit holders that did not qualify for a quota share may lease IBQ allocation from other IBQ Program participants to account for their landings and dead discards of bluefin and resolve quota debt that may accumulate when incidental catch occurs without quota allocation available to the vessel.

The IBQ Program is a Limited Access Privilege Program (LAPP), and under the Magnuson-Stevens Act formal and detailed reviews of all LAPPs established after January 12, 2007 must be conducted every 5 years. Amendment 7 specified that the IBQ Program would be reviewed after the first 3 years of operation to balance the need for the program to have time to operate, while providing a

timely review. The IBQ Program was implemented on January 1, 2015, and NMFS released the draft formal review of the IBQ Program in May 2019.

Purse Seine Fishery

Since 1982, the Purse Seine category has been limited to participants who historically were financially dependent on the fishery. Five vessel owners were defined as historical participants in the fishery. Limited entry was initiated due to the harvesting capacity of this gear type and its ability to exceed U.S. quotas in very short periods of time, and was possible given the small pool of ownership in this sector of the fishery. The intent of the system was to ensure that only those persons who had depended on this fishery for all or part of their livelihood were allowed access. Equal baseline quotas of bluefin were assigned to individual vessel owners by regulation. This enabled owners to replace older vessels they owned with newer ones. Thus, NMFS limited the purse seine fishery participation to only those historical purse seine vessels or their replacements. Although new entrants are prohibited, an owner of a vessel with an Atlantic Tunas permit in the Purse Seine category may transfer the permit to another purse seine vessel that he or she owns. Between 2005 and 2018, only one Purse Seine category participant fished, sporadically, making only a few sets between 2013-2015, and accounting for only a small percentage of total annual bluefin landings each year (six, five, and four percent, in 2013, 2014, and 2015, respectively).

Vessels participating in the Atlantic tunas purse seine fishery may only target the larger size class bluefin tuna; more specifically, the giant size class (≥ 81 inches), and are granted a tolerance limit for large medium size class bluefin (73 to < 81 inches) (i.e., large medium catch may not exceed 15 percent by weight of the total amount of giant bluefin tuna landed during a season). During 2012 and 2013, the purse seine vessel operator reported an increase in schools of mixed sized bluefin, which resulted in increased amount of dead discards resulting from the tolerance limit. During the 2014 and 2015 fishing years, the Purse Seine category participant requested an exemption from the tolerance limit for large medium bluefin. The applicant proposed that NMFS, through issuance of an Exempted Fishing Permit (EFP), assess the possibility of reducing regulatory discards related to this tolerance limit. The applicant argued that waiving the limit on the amount of large medium bluefin would also increase the likelihood of harvesting purse seine quota. An EFP was issued**,** granting an exemption to the tolerance limit for a single vessel for 2014 and renewed for 2015. 2015 was the last year during which there were landings of bluefin by a purse seine vessel (Figure 1).

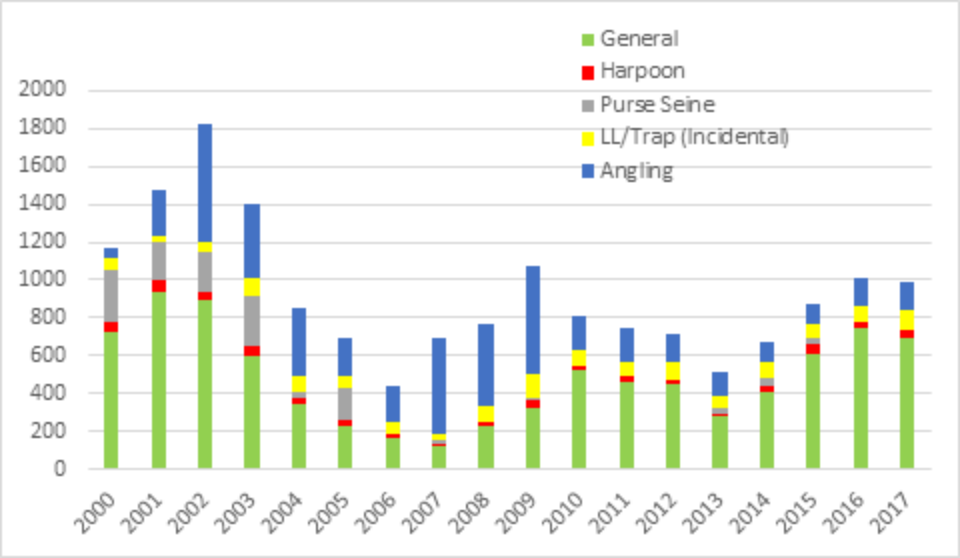

Figure 1. Landings of Bluefin Tuna by Permit Category, 2000 to 2017, Dealer Data

Under the current regulations, in effect since the implementation of Amendment 7, the Purse Seine category fishery is allocated 18.6 percent of the U.S. bluefin quota after 68 mt is subtracted from the baseline quota and allocated to the Longline category. The current baseline Purse Seine category quota is 219.5 mt. Given the lack of fishing activity among the historic Purse Seine category participants in recent years, Amendment 7 also implemented a process through which Purse Seine category quota may be reallocated annually to the Reserve category, with the amount based on a formula that considers the Purse Seine category participants' previous year's catch. The purpose of this measure was to increase utilization of the U.S. quota, which could be underutilized if Purse Seine category participants did not fish. The formula was designed to allocate a minimum level of quota to permitted Purse Seine category participants, as well as to enable their quota to increase over successive years, to avoid being too restrictive and provide an opportunity for the historic purse seine fishery participants to reenter the fishery.

Under the regulations regarding annual reallocation of Purse Seine category quota, NMFS first divides the baseline Purse Seine category quota equally by the number of Purse Seine category participants. For 2018, this equal division resulted in 43.9 mt (i.e., = 219.5/5). A percentage of that amount (100 percent, 75 percent, 50 percent, or 25 percent) is then made available to each participant based on their purse seine catch in the previous year. For 2018, each of the five participants received 11 mt of quota (25 percent of 43.9 mt). These quotas are transferable among the five Purse Seine category participants and, as authorized under Amendment 7, to lease to Longline category-permitted vessels through the IBQ Program. The portion of the baseline Purse Seine quota not allocated to Purse Seine category participants is reallocated to the Reserve category and may be made available for use by other fishing categories through inseason actions, considering certain regulatory criteria. Given the situation described above, the future of this fishery is one of the topics under consideration in this issues and options paper.

General Category Quota Management

Owners/operators of vessels fishing commercially for Atlantic bluefin, bigeye, yellowfin, albacore, or skipjack tunas using a combination of rod and reel, harpoon, and/or handlines must obtain a General category permit. This permit is required in the Atlantic, which includes the Gulf of Mexico and Caribbean Sea. This permit is required if fishing in Federal or State waters. Sale of tuna catch is permitted with this permit. If fishing is taking place in a registered recreational HMS fishing tournament only, this permit will also allow a vessel to recreationally fish for sharks, swordfish, and/or billfish. A Swordfish General Commercial permit may also be issued in conjunction with the General category permit, which allows fishing for swordfish. The discussion below focuses on the bluefin fishery pursued under the General category permit and the relevant General category bluefin quota system.

The following figure shows the division of the General Category bluefin quota among sub-quota time periods. Each of five time periods is allocated a percentage of the annual General category quota (January, June through August, September, October through November and December). Although it is called the "January" subquota, the regulations currently allow landings to continue until the subquota is reached, or until March 31, whichever comes first. Any unused General category quota 'rolls' forward within the fishing year, which coincides with the calendar year, from one time period to the next, and is available for use in subsequent time period (for example, unused quota from June-August rolls to September; unused quota from September rolls to October-November). In addition, NMFS may decide, through an inseason action, to transfer quota from one subquota period to another, whether earlier or later in the calendar year. For example, NMFS may transfer quota allocated for December of a particular year to January of that year, to further fishing opportunities early in the calendar year.

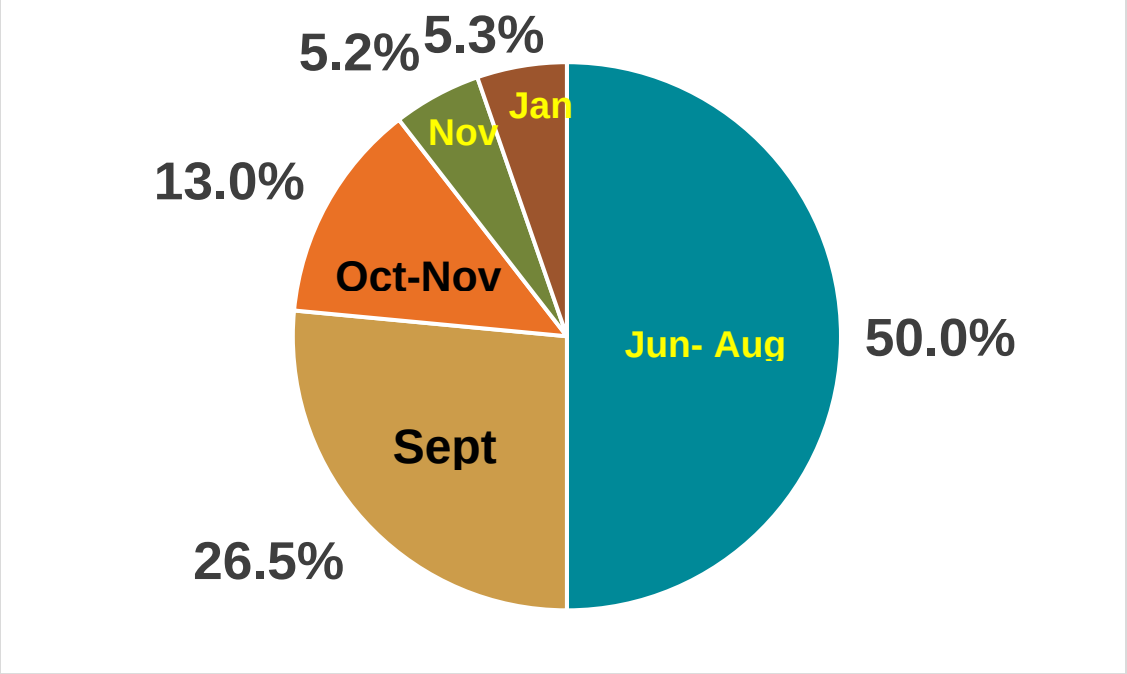

Figure 2. General Category Base Subquota Allocation Percentages

NMFS has the authority to transfer quota among fishing categories or subcategories, after considering regulatory determination criteria at 50 CFR 635.27(a)(8). Therefore, before making any adjustments (e.g., quota transfers and retention limit adjustments), NMFS must consider the following criteria:

i. The usefulness of information obtained from catches in the particular category for biological sampling and monitoring of the status of the stock.
ii. The catches of the particular category quota to date and the likelihood of closure of that segment of the fishery if no adjustment is made.
iii. The projected ability of the vessels fishing under the particular category quota to harvest the additional amount of BFT before the end of the fishing year.
iv. The estimated amounts by which quotas for other gear categories of the fishery might be exceeded.
v. Effects of the adjustment on BFT rebuilding and overfishing.
vi. Effects of the adjustment on accomplishing the objectives of the fishery management plan.
vii. Variations in seasonal distribution, abundance, or migration patterns of BFT.
viii. Effects of catch rates in one area precluding vessels in another area from having a reasonable opportunity to harvest a portion of the category's quota.
ix. Review of dealer reports, daily landing trends, and the availability of the BFT on the fishing grounds.
x. Optimize fishing opportunity.
xi. Account for dead discards.
xii. Facilitate quota accounting.
xiii. Support other fishing monitoring programs through quota allocations and/or generation of revenue.
xiv. Support research through quota allocations and/or generation of revenue.

Purpose and Need for Scoping

This issues and options paper will be used by NMFS during the public scoping process, in which NMFS will consider issues and objectives, as well as a range of possible management options to meet those objectives, which could be undertaken together or as standalone actions in a future rulemaking. The principal reasons changes are being considered are described below, organized by fishery, with detailed rationales for specific management options listed under each management option.

Scoping and the Pelagic Longline Fishery

The reasons for considering changes to pelagic longline fishery management measures are several, including adherence to a recommendation in Amendment 7 to consider potential changes to the IBQ Program based on evaluation of the first three years of the IBQ Program operation; new data, including the Draft Three-Year Review of the IBQ Program; public and HMS Advisory Panel suggestions; and changing conditions in relevant fisheries; As described fully in the Draft Three-

Year Review of the IBQ Program, the preliminary conclusion was that the objectives of the IBQ Program were partially met, and changes to elements of the program such as allocations should be considered to more fully achieve the objectives, as well as to ensure continuing compliance with the Magnuson-Stevens Act requirements for catch share programs. For example, the Draft Three-Year Review included a preliminary conclusion that the allocation design principle stated in Amendment 7 (that the quota be used by active vessels to account for bluefin), was only partially achieved, given the relatively high number of IBQ shareholders that were inactive.

HMS Advisory Panel members and the public have made suggestions for alterations to the management of the pelagic longline fishery due to changing conditions in the fishery resulting from the broad suite of management measures implemented by Amendment 7 and other important factors, both regulatory and non-regulatory. Some input has supported continuation of Amendment 7 measures without revision for a longer period of time. Amendment 7 regulations included not only the IBQ Program, but related substantial management measures including VMS reporting, Electronic Monitoring, gear restricted areas, and modification of the bluefin quota allocations for all quota categories. The challenges that other non-Amendment 7 regulations pose are also of principal concern to vessel owners, who have noted the cumulative impacts of the constraints on the fishery that result from the regulations, especially the closed areas and gear restricted areas. The Appendix section of the Three-Year Review contains includes notes of HMS Advisory Panel feedback on the IBQ Program. NMFS is considering management options and long-term strategies pertaining to gear restricted areas in another regulatory action. Options related to area-based management measures are not addressed in the purpose and need for this scoping process, but are nevertheless a relevant part of the context for consideration of the options in this document.

In addition to regulatory constraints, one of the challenges for the U.S. pelagic longline fishery has been imported swordfish, which limits the market share for the U.S. fishery and frequently provides the domestic market with lower-priced swordfish. Imports of swordfish have been increasing, with a shift in the countries of origin, such as Ecuador, which has increased imports to the United States markedly over the past few years. Fishing effort in the pelagic longline fishery has been declining (e.g., number of vessels fishing with pelagic longline gear, and other metrics of fishing effort). In recent history swordfish landings peaked in 2012 and have declined each year subsequently. Revenue in the pelagic longline fishery has also been declining. Another variable impacting the pelagic longline fleet is the demographics of the fishery participants. Based on discussions with vessel owners and HMS Advisory Panel members, the average age of vessel owner/operators is increasing, and owners are often challenged to find reliable crews, or crew that are willing to fish on extended trips. Changing societal norms, along with limited economic incentives may be contributing this labor dynamic.

Scoping and the Purse Seine Fishery

There are several aspects of the purse seine fishery that propel the need to consider changes to the regulations. The purse seine fishery has been essentially inactive during the past 15 years, with the last year of substantial landings being 2005. During the last years of purse seine activity (2012,

2013, 2014, and 2015) only one vessel made a few sets (landing a relatively small percentage of total bluefin landings).

Amendment 7 made changes to the Purse Seine category regulations to provide more flexibility in administering the U.S. bluefin quota system, and to enable a robust leasing market for IBQ allocation. Recall that under current regulations 75 percent of the baseline Purse Seine quota is reallocated annually to the Reserve category, if there is no catch of bluefin by the Purse Seine category during the previous year. In the last few years, 75 percent of the Purse Seine category quota has been reallocated to the Reserve; for 2018, this amount was approximately 165 mt. This transfer substantially increases the Reserve category quota (baseline of 29.5 mt) and allows its use by active fishing categories.

Amendment 7 provided the opportunity for the historic Purse Seine category participants to re-enter the fishery, with the ability to scale up their quota allocation, but there has been no participation since 2015.

Amendment 7 provided the opportunity for Purse Seine category participants to lease quota to (and/or from) pelagic longline vessel owners in order to ensure that the IBQ leasing market met the needs of the pelagic longline fishery to account for bluefin catch, and provide additional flexibility for the Purse Seine category participants in the context of new regulations. In order to enable a robust leasing market for IBQ, pelagic longline vessels may lease Purse Seine quota through the IBQ system from Purse Seine category participants.
The relative amount of IBQ allocation leased from purse seine to pelagic longline participants was fairly consistent. During 2015, 2016, 2017, and 2018, 16 percent, 28 percent, 25 percent, and 28 percent of the total amount of leased quota (by weight) was leased from Purse Seine category to Longline participants, respectively. During 2015, one Purse Seine category participant leased to pelagic longline vessels, and during 2016 through 2018, three Purse Seine category participants leased to pelagic longline vessels. Two of the three Purse Seine category participants that leased to pelagic longline vessel owners were responsible for leasing the majority of such leasing. Although limited in scope, IBQ allocation leases from Purse Seine category participants to Longline vessel owners were a meaningful component of the initial successful transition to the IBQ Program.

Although since 2015 much of the Purse Seine category quota has been reallocated to the Reserve category, and some of the bluefin quota allocated to Purse Seine category participants has been leased to pelagic longline vessels, a meaningful amount of bluefin quota allocated to Purse Seine category participants is neither used nor leased. This current situation with the purse seine fishery causes uncertainty in the rest of the bluefin fishery. Specifically, uncertainty in the bluefin fishery at-large related to the purse seine fishery stems from the following: the status of the Purse Seine category permits; the amount of bluefin quota that will be allocated to Purse Seine category participants annually; the timing of, and amounts of, reallocation from the Reserve category to the other quota categories; and the amount of quota allocation the Purse Seine category participants might lease to the pelagic longline fishery through the IBQ system. The timing and amounts of reallocations from the Reserve category to the directed categories are not formulaic, but are based

on consideration of regulatory determination criteria, which include current fishery conditions (635.27(a)(8)). The bluefin fishery has much inherent uncertainty due to the variability and highly migratory nature of bluefin, and additional sources of uncertainty should be minimized where possible. Furthermore, if quota is allocated to Purse Seine category participants and repeatedly goes unused used this is a source of concern to participants of both the directed and incidental bluefin fisheries--particularly given that the purse seine fishery has a relatively large portion of the overall quota--fostering questions regarding whether such an allocation is equitable.

Due to the inactive status of the purse seine fishery, HMS Advisory Panel members have suggested "sunsetting" the Purse seine category to decrease uncertainty in the bluefin fishery and optimize the utilization of bluefin quota. In other words, prohibiting the use of purse seine gear as an allowable gear to harvest HMS species, and reallocating the bluefin quota that would have been allocated to the Purse Seine category to the remaining bluefin categories. Some of the potential objectives of sunsetting the Purse Seine category include a reduction in unused bluefin quota, decreased uncertainty in the bluefin fishery, and increased quota and fishing opportunity for the rest of the bluefin fishery. The impacts of changes to the purse seine fishery on other category quota allocations would depend upon the specifics of how, and/or when, NMFS would reallocate the U.S. bluefin quota that previously would have been distributed to the Purse Seine category, but under new rules would be distributed to the other bluefin quota categories.

Scoping and the Directed Bluefin Fisheries

Modification of management measures for the directed bluefin fisheries may be considered to optimize fishing opportunity. Reallocation of quota could affect all bluefin tuna categories or be limited to specific quota categories as determined by NMFS, with consideration of public input during this action. Modification of the current General category subquota allocations could alter the distribution of subquota among time periods (e.g., January through March, June through August), and may alter fishing opportunity for some vessels. Some General category participants perceive they are disadvantaged with respect to the amount of subquota available during the time period they fish, while others state the need to maintain the current distribution of quota, to recognize historical patterns of catch and participation in the fishery, which is changing over time. It is appropriate to periodically consider whether the General category subquota allocations, as well as other quota category allocations are providing equitable fishing opportunities as well as meeting the objectives of the 2006 Consolidated HMS FMP, as amended (Fisheries Allocation Review Policy; NMFS Policy 01-119).

Objectives

NMFS developed the following potential management objectives for scoping based upon the Draft Three-Year Review of the IBQ Program, and suggestions of fishery participants, the HMS Advisory Panel, and the public. The specific objectives reflect the current status of the relevant fisheries, Amendment 7 to the FMP, NOAA policies such as regarding catch shares and allocations, legal obligations, and conservation and management goals.

The potential objectives of management options to be explored during scoping are as follows:

- Continue to prevent or end overfishing of relevant stocks, rebuild overfished stocks, or maintain healthy stock status; minimize bycatch mortality; and manage relevant fisheries for continuing optimum yield consistent with the 2006 Consolidated Atlantic HMS FMP and its amendments, and all applicable laws.
- Consider changes to the management of the pelagic longline fishery in response to the data, preliminary conclusions, and recommendations of Draft Three-Year Review of the IBQ Program.
- Maintain consistency with the Amendment 7 objectives of the IBQ Program, and the Magnuson-Stevens Act catch share requirements.
- Consider changes to the management of the pelagic longline fishery in response to, and in the context of, the important relevant prevailing trends (e.g., declining fishing effort and revenue for target species), as practicable.
- Provide U.S. fishing vessels with a reasonable opportunity to harvest ICCAT-recommended quota, as required under ATCA.
- Evaluate and optimize the allocation of U.S. bluefin quota among bluefin quota categories, considering historical allocations and current fishery characteristics and trends.
- Facilitate the ability for all permit categories to harvest their full bluefin quota allocations, maintain flexibility of the regulations to account for the highly variable nature of the bluefin fisheries, and maintain fairness among permit/quota categories.
- Enhance data quality in bluefin reporting, as practicable.
- Minimize, to the extent practicable, adverse social and economic impacts on related fisheries, fishing communities and recreational and commercial activities.
- Minimize, to the extent practicable, any disadvantage to U.S. bluefin fishermen in relation to foreign competitors (from MSA 304(g)(1)(c)).

IBQ Related Management Measures

Modifications to IBQ Program Share Distribution or IBQ Allocation Methods

Management options discussed below include potential changes to the method of share distribution or of IBQ allocation, including the determination of vessels or permits eligible to receive share, and the amount of IBQ allocated to vessels. Management options may include retaining the current system of allocation implemented under Amendment 7 (No Action; Option A1), options that would allocate based on vessel fishing activity (Option A2), or a combination of these two allocation concepts (Option A3), an option to redefine eligible shareholders and develop a new method of assigning shares to fishery participants (Option A4), and options to modify regulations associated with the IBQ Program (Option A5). Background data is presented to provide context for the options as needed.

Management Option A1: No action.

Description: This option would maintain the current IBQ Program regulations, including the annual allocation method, IBQ share tiers and shareholders, and regional designations for the Atlantic and Gulf of Mexico that were implemented by Amendment 7 in 2015, and modified by subsequent management actions (that modified the requirements regarding accounting for bluefin caught (see § 635.15(b)(4)).

Justification: The rationale for establishing the IBQ Program allocation method was described in Amendment 7. NMFS distributes IBQ allocation annually to the 136 IBQ shareholders, as long as they have associated their valid Atlantic Tunas Longline permit with a vessel. Under Amendment 7, vessels determined to be eligible to receive IBQ shares, and resultant annual IBQ allocation, were those vessels that had a valid Atlantic Tunas Longline category permit (as of August 21, 2013) and were deemed to be active, defined as vessels that made at least one set using pelagic longline gear from 2006 through 2012 based on HMS logbook data. These eligibility criteria were intended to accurately and fairly reflect participation in the fishery and to facilitate continued participation by vessels that had made past investments in the fishery.

The formula used to assign IBQ share tiers to eligible vessels implemented in Amendment 7 was based on the weight of designated species landings and the ratio of bluefin tuna catch to designated species landings. The use of the two factors was intended to ensure a fair and equitable initial allocation, and take into consideration the diversity in vessel, effort, and harvest characteristics. The two factors for each vessel were combined to simplify the quota share system and minimize the importance of potential imprecision in the data. The two factors were quantified by specific formulas that resulted in two scores, which combined, resulted in the IBQ share tier designations for eligible vessels. The first factor (based on the weight of designated species landings) was

intended to allocate proportionately to a vessel's historical landings, since more landings were inferred to reflect more effort and a need for more IBQ allocation to cover incidental bluefin interactions. The second factor (based on the ratio of bluefin tuna catch to designated species landings) was intended to increase the amount of share for vessels with a demonstrated history of avoiding bluefin. The second factor resulted in a score that was inversely proportionate to the ratio of bluefin interactions to target species landings. Using the two factors (scores) IBQ shares were assigned using three categories ('tiers'). The Low tier received a share equivalent to at least two bluefin tuna (at 0.25 mt each), the Medium tier share was three bluefin, and the High tier share was six bluefin. IBQ shares were intended to ensure allocation for all active vessels to provide for sustained participation in the fishery. More information on the allocation formula can be found by search on "Amendment 7" in the HMS website.

IBQ shares and subsequent associated allocation were designated as either "Gulf of Mexico" or "Atlantic" based on the geographic location of sets from that vessel's fishing history. Only Gulf of Mexico allocation could be used to account for bluefin tuna caught in the Gulf of Mexico, while either Atlantic or Gulf of Mexico allocation could be used to account for bluefin caught in the Atlantic. This restriction was intended to prevent potential increases in bluefin catch in the Gulf of Mexico, the only recognized spawning grounds for the western Atlantic stock of bluefin tuna. Because bluefin in the Gulf of Mexico are comprised of large fish that may be sexually mature or spawning, particularly during the spring spawning season, limiting the potential for increases in fishing effort with pelagic longline gear in the Gulf of Mexico may also enhance spawning potential and stock growth.

Pros: Maintaining the current allocation method would prevent disruption and uncertainty in the fishery that could be associated with changes to allocations or associated restrictions. This option would facilitate business planning by those that received IBQ shares. Overall, vessels in the pelagic longline fleet have been able to resolve any quota debt accrued under the IBQ Program, and bluefin catch has been within the Longline category quota. During 2015, 2016, 2017, and 2018, 35, 51, 45, and 45 percent of the adjusted Longline category quota was used (including dead discard estimates and a preliminary estimate for 2018), respectively. This option is responsive to those that have commented that the IBQ Program is functioning as it should under the current regulations to limit bluefin catch in the pelagic longline fishery. The IBQ leasing market and inseason transfers of IBQ from the Reserve to the Longline category have mitigated some of the perceived and actual constraints of the current allocations system.

Cons: Although the total amount of allocation distributed to participants is likely sufficient to cover current fishing activity, the Draft Three-Year Review of the IBQ Program included a preliminary conclusion that the allocation design principle stated in Amendment 7 (that the quota be used by active vessels to account for bluefin), was only partially achieved, given the relatively high number of IBQ share recipients that were inactive, i.e., not fishing. A tiered system of allocation of catch shares based on historical catch, which is typical of many catch share programs, may have limited relevance or disadvantages when implemented in the context of a quota catch share program for a bycatch species. The distribution of allocation may not align with the need for quota, given the fact

that bluefin catch and the need for quota is likely to be variable from year to year, due to the variability of bluefin tuna distribution. Bluefin catch, and the need for IBQ quota is likely to be some- what concentrated among a few vessels, yet not necessarily the same vessels from year to year. Furthermore, bluefin comprises only a fraction of the total catch of the fishery. As described above, the current share distribution formula based on two factors. The factor that is quantified using the ratio of bluefin to designated species may have a disproportionate influence on the net score used to assign share tiers.

Further, the document made a preliminary recommendation that "a simpler allocation system based on active vessels could be considered, as was suggested by HMS Advisory Panel members." Out of 136 shareholders that could potentially fish, only 104, 85, and 88 vessels were active in the fishery in 2015, 2016, and 2017, respectively (76, 63, and 65 percent, respectively). Some IBQ shareholders neither fished, nor leased IBQ allocation to other vessels. Of IBQ shareholders that did not fish in 2016 and 2017, 62 and 71 percent, respectively, did not participate in the leasing market. Out of all 136 IBQ shareholders, 23 and 26 percent neither used their IBQ to fish with pelagic longline gear nor leased to other IBQ Program participants, in 2016 and 2017 respectively. Hence, any IBQ allocation associated with those shareholders remained unavailable to the fishery. Lastly, recent trends in permit data suggest an increase in the number of permits being disassociated with vessels (referred to as 'NOVESID'). Overall the percentage of permits in NOVESID status has increased from 10 percent in 2012 to 18 percent in 2018 and as mentioned above, any IBQ associated with these permits is not allocated, but is set aside for such permits, in the event the permit is reassociated with (i.e., put on) a vessel. This IBQ quota however also remains unavailable to the fishery.

Management Option A2: Eliminate existing designations of IBQ shareholders and allocate only to currently active vessels.

This option would eliminate the current method of IBQ share designation and allocation distribution that was implemented by Amendment 7 and replace it with a more dynamic system as described below.

In contrast to the current allocation system, which was based on a one-time determination of eligible share recipients (136 IBQ share recipients), these options (A2a and A2b) would continuously reallocate IBQ at specific annual time intervals, based on the application of fixed criteria. The criteria could result in distribution of IBQ allocation to permitted vessels that recently fished with pelagic longline gear (e.g., within the previous year or two). Because the specific vessels that fish with pelagic longline gear usually change over time, the pool of vessels allocated IBQ would change. Under this option, the shareholders determined by Amendment 7 would no longer exist or be relevant. This allocation method could, at a specified time interval, allocate differing amounts of quota to individual active permitted vessels, each in proportion to each active vessel's fishing effort (Option A2a), or allocate equal amounts of quota to each active vessel (Option A2b).

Elements of each of these potential options would include: a) a definition/criteria for determining the pool of vessels that have recently fished (active vessels). In other words, designation of a specific time period to be analyzed to determine which vessels are currently active (e.g., recent 12-month period, previous year and current year to date, or previous 3 years); b) the frequency of determining active vessels (e.g., annually or biennially); and c) specifying how much quota each active vessel receives. Suboptions A2a and A2b focus on "c)", the amount of quota allocated to each active vessel.

Suboption A2a: Dynamic allocation of quota to active vessels based on fishing effort.

Description: This option would allocate quota only to active vessels (those that fished with pelagic longline gear during a designated time period), and allocate quota to each active vessel in proportion to the amount of that vessel's fishing effort. Fishing effort could be quantified based on, for example, number of hooks, number of sets, or amount of target species landings reported through the vessel's VMS, HMS logbook, and/or through dealer data. Each of these metrics have associated strengths and weakness, which would need to be qualitatively and quantitatively analyzed (if possible). Under this suboption, the IBQ share tiers assigned in Amendment 7 would no longer be applicable. A threshold amount of fishing effort could be set, in order to prevent vessels from fishing only a single set (or very few sets) for the sole purpose of obtaining allocation in a subsequent year. Alternatively, any amount of fishing effort could qualify a vessel for allocation.

IBQ allocation would not be distributed to permit holders that are in either an invalid or NOVESID permit status (i.e., permit has not been renewed, or is not associated with a vessel). Participants that have recently had low fishing effort might receive less allocation than they received in the past under Amendment 7 (i.e., Option A1 in this document), while other participants might receive more allocation. Permit holders with permits in invalid or NOVESID status, or those entering the fishery subsequent to these determinations, would have to lease IBQ allocation from other pelagic longline participants in order to participate in the fishery. Those permit holders would then be eligible to receive a percentage of the Longline category quota following the first activity in the relevant period. New entrants to the fishery since the implementation of Amendment 7 that fished in the relevant time period (i.e., active vessels not associated with IBQ shares) would receive quota allocation based on their fishing effort. The timing of NMFS' receipt of data is relevant to which data source(s) would be utilized to define activity and characterize fishing effort, and how this option is designed.

Justification: Distribution of IBQ only to active vessels is likely to optimize the allocation of the Longline category quota by reducing the amount of unused or inaccessible quota, and increasing allocations to some active vessels. This option also would allow new entrants to the fishery after 2012 to receive annual allocation if they have recent fishing activity. The number of bluefin that pelagic longline vessels interact with, and the number of dead discards and landings that vessels must account for using quota, relates to several factors including fishing effort, fishing behavior/technique (i.e., vessel operator decisions regarding bait, where and when to set gear in relation to bluefin distribution), and bluefin distribution/availability. This option is based upon the

premise that a vessel's fishing effort is an important determinant of the number of its bluefin interactions, and therefore a logical and effective method of allocating IBQ, consistent with an objective of allocating to active vessels (and not to inactive vessels). Vessels with more fishing activity are generally more likely to interact with more bluefin, and therefore need larger allocations of IBQ to account for bluefin retained or discarded dead. Note, this premise was a component of the share calculation method implemented by Amendment 7, but Amendment 7 also incorporated bluefin avoidance as a second element.

Pros: Allocation of IBQ only to active vessels would likely optimize the allocation of the Longline category quota by reducing the amount of unused/inaccessible quota, and increasing allocations to active vessels with relatively high fishing effort. In addition, allocation of IBQ in proportion to fishing effort is more likely to result in amounts of allocations of quota that more closely align with a vessel's directed effort and incidental catch of bluefin. The precise number of vessels for which this option would represent an increase in IBQ allocation compared to the No Action option, would depend upon the method of measuring fishing effort and distributing the IBQ among vessels. The Draft Three-Year Review of the IBQ Program stated, "Annual allocations based on pelagic longline activity could result in more IBQ allocation per vessel due to reduced numbers of vessels allocated IBQ, as well as reduced perceptions that the allocations are not fair." Receiving a larger amount of IBQ allocation may reduce the need and cost to lease IBQ allocation. Receiving more IBQ allocation also lessens business planning uncertainties associated with finding enough IBQ allocation to cover quota debt and meet minimum regional requirements to fish. This allocation strategy also could accommodate new entrants by incentivizing effort and providing them with an opportunity to receive annual allocation after the first time period analyzed. Currently (under Amendment 7 rules), any new participant that entered the fishery after 2012 must either purchase a permit with shares or must perpetually lease quota from others. This allocation method may be perceived as more fair than the current allocation method based on historical catch (including allocating relatively less bluefin IBQ to vessels that historically caught relatively more bluefin). Compared to the current share distribution formula, this would not have an element that rewards bluefin avoidance (this may be perceived as either a pro or a con).

Cons: Some active vessels may receive less IBQ allocation than previously issued under the Amendment 7 allocation formula (depending on the number of participants), which may increase the need and cost to lease IBQ allocation. Due to the variability of bluefin catch in general, it may be difficult to align the overall distribution of IBQ with the overall distribution of bluefin catch. Distribution of IBQ based on fishing effort may not fully align with the need to account for bluefin, because the distribution of effort varies by geographic area, and the areas where vessels fish, may not be the areas where bluefin occur, or the situation where a large number of bluefin are interacted with on a given set (a.k.a., 'disaster set' or 'lightning strike'). Allocation based on fishing effort could also result in some vessels being allocated less IBQ than the minimum required to depart on a pelagic longline fishing trip (although the allocation method could be designed to preclude that situation). Compared to the current share distribution formula, this would not have an element that rewards bluefin avoidance (this may be perceived as either a pro or a con).

Under this option the allocation associated with a particular permit would no longer be static, but would depend on whether that vessel has fished recently, which may fluctuate. This aspect of the allocation may cause pressure to fish using pelagic longline gear in a year, to maintain an annual allocation of IBQ, when a participant may have other business plans or may be experiencing difficulties that preclude fishing. Participants with history in the fishery that are temporarily forced out due to natural disasters, health, extended boat repairs, or other situations would become "new entrants" and would have to lease quota from other participants upon their return to the pelagic longline fishery. This allocation strategy might not provide as much flexibility for individual vessels to respond to changes in fishery conditions over time.

This suboption may affect the value of Atlantic Tunas Longline permits, and create market uncertainty concerning permit valuation, because a particular permit would no longer be defined as an IBQ share recipient, a permit attribute that currently remains over time. Since the implementation of Amendment 7, some fishery participants have had to pay a higher price for Atlantic Tunas Longline permits with IBQ shares attached. Under this suboption, IBQ shares are no longer assigned to Atlantic Tunas Longline permits, which may affect the market value of permits that currently hold IBQ shares. Instead a variable pool of vessels, defined on a regular basis (e.g., annually, biannually, etc.) would be distributed annual quota.

This option may increase administrative burden for NMFS compared to the No Action option, since NMFS staff would need to conduct recurring analyses and update the IBQ online system to reflect these changes. Landings and effort data, depending on the source, may not be immediately available for the preceding year. For example, calculations based on VMS data might support more real-time management than calculations from logbook data. Logbook data from 2017, for example, was not available for use in management until the third quarter of 2018, and would therefore be used in calculations for the 2019 fishing year. Because of data delays, determinations of active vessels and amount of IBQ allocation vessels receive might not precisely reflect the current universe of fishery participants. The tables below contain relevant data for allocation of IBQ based on fishing effort (Tables 2 and 3).

Table 2. Count of Number of Vessels Setting Various Numbers of Hooks per Year

# Hooks Set per Year	2012	2013	2014	2015	2016	2017
<25,000	21	19	15	24	19	19
25,000≥50,000	21	22	31	28	16	19
50,000≥75,000	31	31	27	22	17	25
75,000≥100,000	24	19	18	14	16	9
>100,000	24	25	19	16	17	16
Grand total	121	116	110	104	85	88

Table 3. Count of Number of Vessels Fishing Various Numbers of Pelagic Longline Sets per Year

# of Sets per Year	2012	2013	2014	2015	2016	2017
1– 50	24	22	22	34	22	26
51–100	46	43	46	33	32	30
101–150	43	42	34	26	27	26
>150	8	9	8	11	4	6
Grand total	121	116	110	104	85	88

Allocation to individual vessels based on fishing effort using the number of hooks deployed, for example, may result in a geographic distribution of allocation that reflects the differences in regional fishing strategies and effort. For example, Figure 3 shows data presented in Amendment 7 on the average number of hooks deployed per set across the pelagic longline fleet between 2006 and 2012. Vessels fishing in the eastern and northern Gulf of Mexico, and off Cape Hatteras, NC, historically deployed fewer hooks per set than vessels fishing in the Northeast Distant Area, off Georges Bank, or seaward of the Bahamian EEZ. Similar patterns are apparent in more recent data (2015-2017) as well (Figure 4).

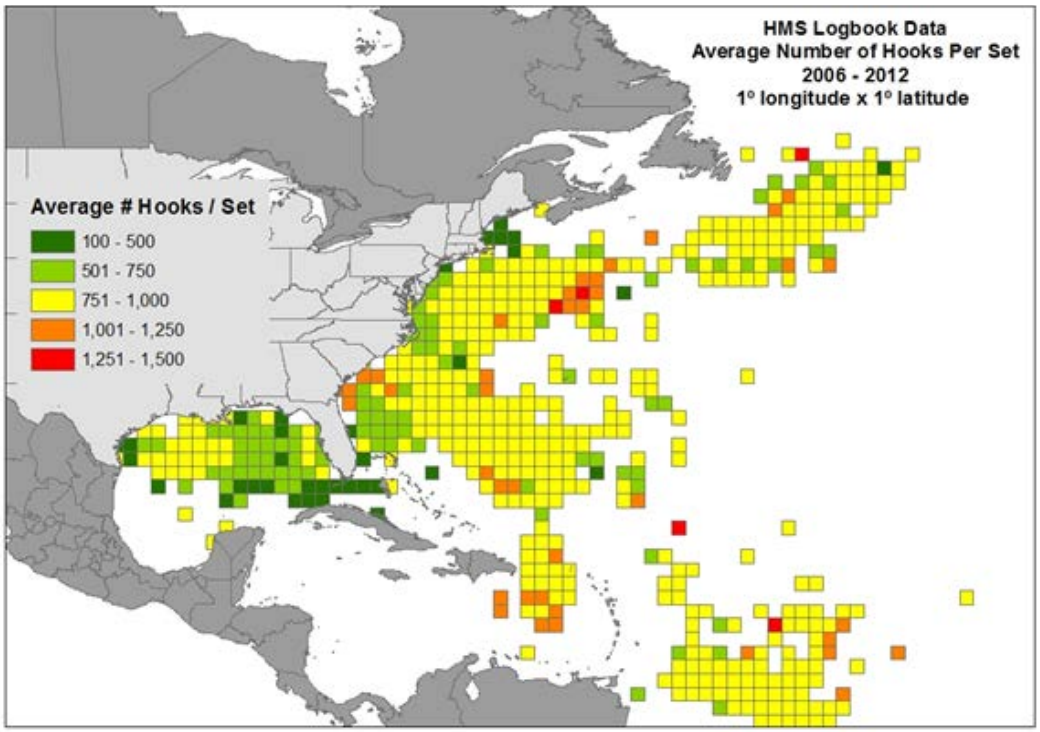

Figure 3. Average Number of Hooks Deployed per Pelagic Longline Set, 2006–2012

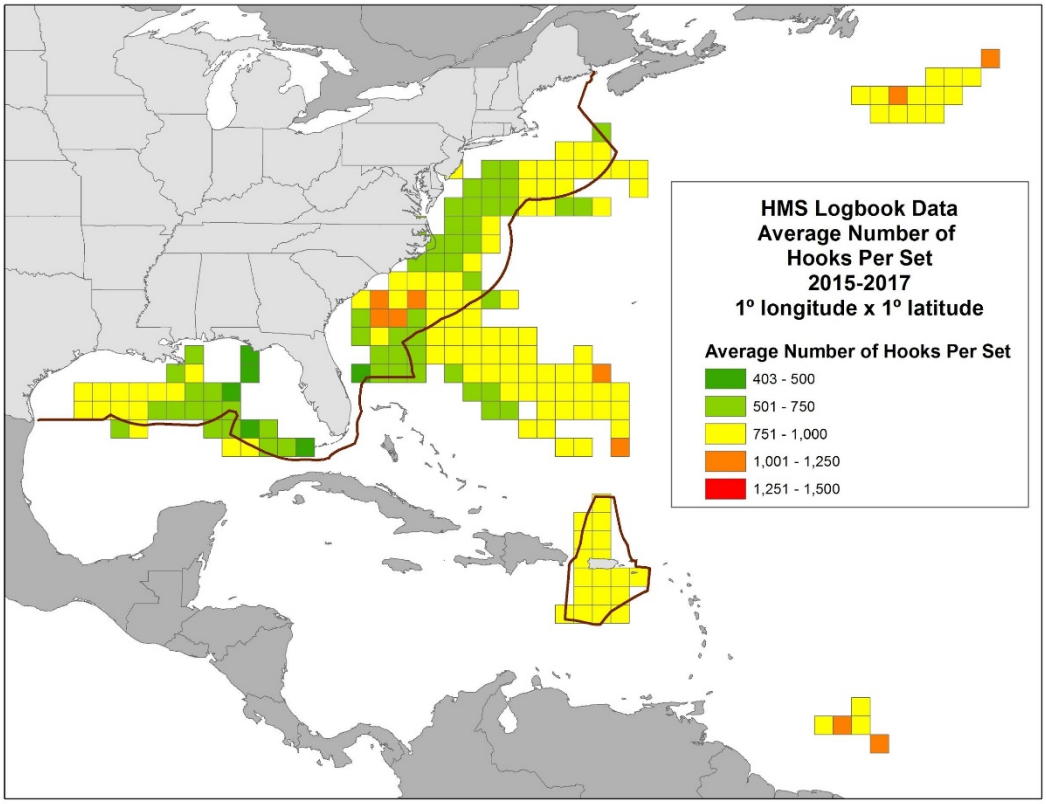

Figure 4. Average Number of Hooks Deployed per Pelagic Longline Set, 2015–2017

Table 4 shows landings data compiled for the Cape Hatteras Gear Restricted Area performance metrics, to provide an indication of the numbers of vessels landing various amounts of designated target species (e.g., swordfish, yellowfin tuna). Landings could also be used as a proxy for fishing effort, and as a metric for allocation of IBQ.

Table 4. Number of Vessels Landing Different Ranges of Designated Target Species

Designated Target Species Landed (lb)	2012	2013	2014	2015	2016	2017
> 100,000	51	33	27	24	23	30
65,000 ≥ 100,000	32	31	29	19	25	14
30,000 ≥ 65,000	20	35	40	29	19	23
0 ≥ 30,000	18	17	14	32	18	21
Total vessels	121	116	110	104	85	88

Source: Cape Hatteras Gear Restricted Area performance metrics, HMS logbook data.

Suboption A2b: Dynamic allocation of IBQ to active vessels in equal amounts.

Description: This option would allocate quota only to active vessels (those that fished with pelagic longline gear during a designated time period), and allocate IBQ in equal amounts to each active vessel. Similar to Suboption A2a, there would need to be a definition of what an active vessel is, which could be based on, for example, number of hooks, number of sets, or amount of target species landings reported through the vessel's VMS, HMS logbook, and/or through dealer data. Under this suboption, the IBQ shareholders and share Tiers determined by Amendment 7 would no longer be applicable. A threshold amount of fishing effort could be set, in order to prevent vessels from fishing only a single set (or very few sets) for the sole purpose of obtaining allocation in a subsequent year. Alternatively, any amount of fishing effort could qualify a vessel for allocation.

IBQ quota would not be issued to permit holders that are in either an invalid or NOVESID permit status (i.e., permit has not been renewed, or is not associated with a vessel). Permit holders with permits in invalid or NOVESID status, or those entering the fishery subsequent to these determinations, would have to lease IBQ allocation from other pelagic longline participants to participate in the fishery. Those permit holders would then be eligible to receive a portion of the Longline category quota following the first activity in the relevant period. New entrants to the fishery since the implementation of Amendment 7 that fished in the relevant time period (i.e., active vessels not associated with IBQ shares) would also receive an equal amount of IBQ allocation. The timing of NMFS' receipt of data and compliance with reporting requirements is relevant to which data source(s) is utilized to define active vessels, and how this option is designed.

Justification: Allocation of IBQ only to active vessels is likely to optimize the allocation of the Longline category quota by reducing the amount of unused quota, and increasing allocations to some active vessels. This option also allows new entrants to the fishery after 2012 to receive annual allocation if they have recent fishing activity. Allocating IBQ in equal amounts to active vessels, rather than according to effort, would simplify the IBQ Program and therefore may be more efficient.

Pros: Participants with active vessels may receive more quota than previously issued under the Amendment 7 share distribution formula (depending on the number of participants), which may reduce the need and cost to lease IBQ allocation. Based on the number of active vessels from 2015 through 2018 (and recent Longline category quotas), it is likely that participants would receive more allocation than they received under Amendment 7. Allocating to permits associated with active vessels would reduce the amount of IBQ allocation that is inaccessible to the fishery due to permit status or inactivity (not fishing and/or not leasing). Receiving more IBQ allocation also lessens business planning uncertainties associated with finding enough IBQ allocation to prevent or cover quota debt and meet minimum regional requirements to fish. This allocation strategy may result in more consistent allocations from one evaluation period to the next than that described in Suboption A2a, which would further lessen business planning uncertainty. This allocation strategy also would accommodate new entrants, providing them with an opportunity to receive annual allocation after the first relevant period. Currently, any new participant that entered the fishery after 2012 must either purchase a permit with shares or must perpetually lease quota from others. This allocation method may be perceived by fishery participants as being more fair than an allocation method based on effort or catch criteria. The method would involve less administrative burden for NMFS to implement than Suboption A2a, because it would likely not rely upon as complex or extensive a data set. Although effort or catch data would be used to establish which vessels were active, the level of activity would not be the basis for allocation.

Cons: The cons associated with this suboption are similar to the cons associated with the above Suboption A2a (dynamic allocation to active vessels based on effort) and are not repeated here. Cons that are different from Suboption A2a are described. Because this suboption would allocate equally among active vessels (however defined), participants with active vessels that have a lot of fishing effort may receive less IBQ allocation than under Suboption A2a (depending on the number of participants), which may increase the need and cost to lease IBQ allocation. Due to the variability of bluefin catch in general, it may be difficult to align the overall distribution of IBQ with the overall distribution of bluefin catch.

Management Option A3: Implement a hybrid allocation scheme that provides some IBQ allocation to all Amendment 7 IBQ shareholders, and divides remaining allocation equally among active vessels.

Description: This option would establish a base amount of IBQ to disburse to current IBQ shareholders, as already defined by Amendment 7. The remaining IBQ allocation would be disbursed equally to active vessels, as described in Option A2. The universe of share recipients

would remain as defined under Amendment 7, but the percentage of the total quota automatically allocated to them would likely be reduced, to account for the fact that only a portion of the total quota would be allocated equally among active vessels. A consideration of an appropriate percentage to allocate based on share tier would include ensuring that the lowest tier vessels receive the equivalent of at least one bluefin (e.g., 551 lb, in consideration of vessels fishing in the Gulf of Mexico). Criteria would be needed to determine active vessels, as described in Option A2.

Justification: This management option may provide an allocation of IBQ to IBQ shareholders defined by Amendment 7 to maintain some continuity with the current allocation system (and the underlying justifications for that system), but also optimize use of IBQ by allocating to active vessels to reflect activity in the fishery and facilitate new entrants. The justification for the Amendment 7 allocations was to reflect historical participation in the fishery, allocate based on the amount of target catch and the rate of bluefin catch (thus incentivizing bluefin avoidance), and incorporate incentives into allocations.

Example: Table 5 shows an example of allocation using this concept. In 2017, approximately 148.3 mt (326,945 lb) of IBQ quota was allocated to the Longline category on January 1 (annual allocation). If the share tier percentages (applicable to the eligible 136 IBQ share recipients) were reduced by 50 percent, and the remaining amount of quota split among the 89 active vessels (submitting HMS logbooks for 2017 indicating fishing with pelagic longline gear), the allocations to the share recipients would be as shown. The total allocation to share recipients would be 164,421 lb, leaving 162,524 lb to allocate equally among active vessels (regardless of previous shareholder status). Active vessels that were not associated with IBQ shares would be allocated 1,826 lb total. For comparison, 2017 annual allocations to IBQ share recipients were 3,913 lb to the high tier, 1,956 lb to the medium tier, and 1,206 lb to the low tier.

Table 5. Example of Allocations (lb) to Individual Vessels by Share Tier under Option A3

Share Tier	*Tier Allocation	**Equal Allocation to Active Vessels	Total Allocation to Active Vessels (tier + equal allocation)
High (0.6%)	1,962	1,826	3,788
Medium (0.3%)	981	1,826	2,807
Low (0.19%)	621	1,826	2,447
No share	0	1,826	1,826

*Tier Allocations based on 136 share recipients (43, 62, and 31, high, medium, and low tier share recipients, respectively); Amendment 7 share percentages reduced by 50 percent (i.e., high tier adjusted from 1.2 to 0.6 percent; medium tier adjusted from 0.6 to 0.3 percent and low tier adjusted from 0.37 to 0.19 percent).
**Equal allocation based on 89 active vessels total during 2017.

Pros: This management option provides some continuity by allocating quota to Amendment 7 IBQ share recipients, but also supports the objective of optimizing IBQ allocations by reducing the amount of IBQ that is allocated to inactive vessels, and ensuring IBQ allocation is available for active vessels and new entrants. Currently, any new participant that entered the fishery after 2012 must either purchase a permit with shares or must perpetually lease quota from others. Allocating to active vessels in addition to share recipients would reduce the amount of IBQ allocation that is inaccessible to the fishery due to permit status. Participants with active vessels may receive more IBQ allocation than previously issued under the Amendment 7 allocation formula (depending on the number of active vessels), which may reduce the need and cost to lease IBQ allocation. However, historically active participants (IBQ share recipients) that choose to participate in some years but not in others would still receive some IBQ allocation and have the opportunity to re-engage in the fishery without having to lease IBQ allocation from others. This option may be less disruptive to the fishery than a completely novel allocation method, and may preserve the value of investments made in purchasing permits since the implementation of Amendment 7. The aspect of allocating to active vessels may optimize allocations and reduce the amount of allocation associated with inactive vessels. Redirecting allocation to recently active fishery participants might reduce the likelihood of latent permits being allocated, but not using IBQ quota, which was observed in the first three years of the IBQ Program. For example, in 2017 approximately 3 percent (13,294 lbs) of the pelagic longline quota was not distributed to participants due to permit status (not renewed, or NOVESID). This option may also reduce uncertainty associated with finding enough IBQ allocation to prevent or cover quota debt and meet minimum regional requirements to fish.

Cons: This option may still result in the allocation of some IBQ to inactive vessels. This allocation method may disburse a lower amount of quota to some Amendment 7 share recipients than the No Action option (A1). Specifically, IBQ share recipients that do not have recent fishing activity may receive less annual allocation under this option compared to the No Action option. This allocation method may also allocate less IBQ to active vessels that are not Amendment 7 share recipients than option A2. This option may change the valuation of permits from the current system, and result in some loss in permit value for some. This option might not be as accommodating to new entrants as other options. Two pools of quota would be disbursed: one to the current 136 IBQ share recipients that would not change from year to year; and the other to active fishery participants. Most new entrants would not fit into the universe of IBQ share recipients, and therefore would never be in a position to receive the greatest amount of IBQ allocation that can be disbursed to an individual, without purchasing an Atlantic Tunas Longline permit with IBQ share.

This option would increase administrative burden for NMFS compared to the No Action option, since NMFS would need to conduct analyses and update the IBQ online system to reflect these changes. The availability of relevant data would constrain the timing of when NMFS can perform the necessary calculations and inform fishery participants. Landings and effort data, depending on the source, may not be immediately available for the preceding year. For example, calculations based on VMS data might support more real-time management than calculations from logbook data. Logbook data from a particular year typically do not become available for use in management until

the third quarter of the subsequent year. A substantial time delay could result in allocations that may not fully reflect the current universe of fishery participants.

Management Option A4: Redefine IBQ shareholders using the current IBQ formula or an equal share formula to assign shares to fishery participants.

The suboptions below are examples of new IBQ share distribution formulas that could be used to assign shares to fishery participants. The formula contained under the A4 Suboptions would be based on a redefined universe of share recipients, in contrast with options A2 and A3 which would provide IBQ quota to a continuously changing pool of permit holders, wholly or in part, to active vessels. Once determined, the pool of IBQ share recipients identified under Management Suboptions A4a and A4b would not change over time.

Under Amendment 7, Atlantic Tunas Longline permits were deemed either eligible to receive a share or ineligible to receive a share depending on whether a pelagic longline set had been recorded in the HMS logbook from 2006 through 2012. Suboptions A4a and A4b require the selection of a pool of eligible vessels based on a specified timeframe. For example, NMFS could define eligibility based on fishing activity using pelagic longline gear after implementation of the IBQ Program (e.g., from 2015 through 2017 or 2018). A control date of January 1, 2015 was implemented by Amendment 7 that provided notice to the public that this date might be utilized as a reference point for these management suboptions. Alternatively, NMFS could also consider expanding the time-frame considered to include years prior to 2015.

The current IBQ share tier formulas divide IBQ shares into Gulf of Mexico and Atlantic share categories based on the distribution of sets by eligible vessels. NMFS could retain these regional requirements, or select other Management Options that modify or eliminate these restrictions as described below (for example, Option A5b).

Suboption A4a: Retain the current IBQ tier and share formulas.

Description: This management option would retain the same formula structure for calculating shares and tiers (i.e., as described in Amendment 7 (see § 635.15(k)), but would use data from a more recent time period to define "eligible" vessels.

Justification: This option would use the current share distribution formula to reallocate IBQ shares to participants but would use more recent data to apply the criteria to a more recent time period, essentially redefining the pool of eligible vessels. The current share distribution formula, which evaluated fishery data from 2006 - 2012, used an approach that considered both bluefin and catch of designated species to identify an appropriate pool of IBQ share recipients.

Pros: This option would use the current share distribution formula and is familiar to fishery participants and stakeholders. This method would consider the amount of designated species landings and the ratio of bluefin-to-designated species landings, recognizing that greater levels of

fishing activity are likely to be correlated with a greater number of bluefin tuna interactions. The use of these two factors in the Amendment 7 quota share allocation formula was intended to acknowledge past bluefin tuna avoidance, ensure a fair initial allocation, and consider the diversity in vessel fishing patterns and harvest characteristics, as described under the No Action option. Since this option uses the current share distribution method--with more recent fishing activity data--it could provide more consistency and stability in terms of the value of Atlantic Tunas Longline permits associated with IBQ share, and in terms of the leasing market. The current share distribution and subsequent allocation approach was successful in meeting the Amendment 7 objective of reducing dead discards (Draft Three-Year Review).

This strategy also accommodates relatively recent new entrants to the fishery, because the relevant time period would be more recent than the time period utilized under Amendment 7 (2006 - 2012), providing them with an opportunity to be eligible to receive IBQ shares and resulting annual allocation. Currently, any new participant that entered the fishery after 2012 must either purchase a permit with shares or must perpetually lease quota from others. Implementation of this option by NMFS would be less of an administrative burden than a recurring calculation of active vessels and annual allocation, as described in Options A2 and A3.

Cons: Allocation based on historical data may not be able to appropriately accommodate and consider future participation or changes in vessel interactions with bluefin. Under this option, shares are also based on landings and bluefin interactions associated with a specific owner over a static timeframe. Although one of the stated objectives of the method under Amendment 7 was to provide quota to vessels that are fishing (as opposed to vessels that are not active, which do not need IBQ), a single reconfiguration of shares across three tiers may not provide enough allocation to meet the needs of active vessels.

The fishing history associated with a permit is static, even though vessel operators and owners may change over time. In future years it is plausible that the pool of participating vessels could change. For example, inactive share recipients may maintain permits in a valid status and still receive IBQ allocation but not use it, or may move permits into NOVESID status (rendering IBQ inaccessible). Allocation of quota is not optimized if a portion of the quota is allocated to share recipients that do not fish, even if those share recipients lease some of their allocation to other vessels. New entrants, after implementation of this allocation method, are not provided a means to obtain annual allocation unless they purchase a permit that is already associated with IBQ shares, which may not be available. Consideration of years prior to 2015 (in addition to years after 2015) may be a concern because there is a January 1, 2015 control date and would bridge two different management strategies (fleet-wide accountability/target catch requirements versus individual accountability/no limit on retention).

Suboption A4b: Evenly divide IBQ shares among share recipients.

Description: This management option would define eligible share recipients based upon the use of pelagic longline gear during a recent time period, and evenly divide shares between eligible participants. This concept should not be confused with the option A2b, described above.

Justification: This option would create a simple share system that does not rely on formulas or criteria, and provides all eligible vessels the same quota share percentage regardless of differences in catch history or vessel characteristics.

Pros: This system is easy to understand, and does not assign IBQ shares based on the catch associated with a particular time period or particular vessel owner (i.e., participants that were poor bluefin avoiders may have a low or medium tier allocation under the current system). The specific catch history associated with a permit would not affect future owners of permits. The method of share distribution would reduce the amount of IBQ share associated with inactive permits compared to the status quo.

The number of active participants that made sets from 2015 through 2017 (n = 112) is lower than the number of participants deemed eligible to receive IBQ shares under Amendment 7 (n = 136). Participants previously assigned to low and medium tiers would likely receive more IBQ shares and allocation, which may reduce uncertainty and costs for those participants.
This allocation strategy also would accommodate the new entrants to the fishery after 2012, providing them with an opportunity to be eligible to receive IBQ shares and resulting annual allocation. Currently, any new participant that entered the fishery after 2012 must either purchase a permit with shares or must perpetually lease quota from others. A one-time change to participants that receive IBQ shares would be less of an annual administrative burden than a dynamic calculation of active vessels and annual allocation, as described in Options A2 and A3.

Cons: This allocation method, which is based on a single historical period to define the pool of vessels eligible for shares, may result in shares being assigned and quota allocated to vessels that are currently inactive, and may only weakly support optimization of the overall allocation of IBQ. Under this option, new entrants, after implementation of the new share distribution method, are not provided a means to obtain annual IBQ allocation unless they purchase a permit that is already associated with IBQ shares, which may not be available. New entrants to the fishery would need to lease allocation on an annual basis.

Similarly to Suboption A4a, disbursement of IBQ allocation under a new formula does not necessarily translate to its future availability to the fishery. Current active participants may drop out of the pelagic longline fishery temporarily to take advantage of more lucrative fishing opportunities elsewhere but still keep permits associated with a vessel and in valid status. Current active participants may also elect to place permits in NOVESID status as a future investment. In either case, the IBQ allocation associated with these permits would be held back from disbursement

by the IBQ System, and not be available for leasing by active participants. This pattern was observed after implementation of the IBQ Program.

This option may change the valuation of permits from the current IBQ Program, and result in some loss in permit value for some. Depending on the baseline quota in a given year and on the number of active vessels, participants previously classified as high-tier share recipients would likely receive smaller shares and less IBQ allocation under an equal split between eligible permit holders.

Management Option A5: Modify regulations related to IBQ Allocations.

The following suboptions could apply to the IBQ Program under any of the allocation distribution described in Options A1, A2, A3, and A4. These suboptions could also be applied as modifications to the IBQ Program under the current allocation method established in Amendment 7.

Suboption A5a: Disburse allocation by request to IBQ share recipients.

Description: This system would place responsibility on share recipients to make a request to NMFS to obtain their annual allocation of IBQ. Specifically, this option adds an additional criteria for annual allocation of IBQ. IBQ share recipients (as defined under one of the share distribution options) would be required to request their annual allocation (via mail, email, or in the IBQ system) by some deadline prior to the start of the calendar year to receive allocation in the subsequent year. This management option would establish a process and timeline for share recipients to communicate their request to receive IBQ allocation during a particular year. Under this option, quota would no longer be set aside (reserved for a particular shareholder) in the IBQ system for shareholders with permits in NOVESID, expired permits, or otherwise not engaged with the IBQ Program that do not intend to fish in a given year, ensuring that a greater amount of IBQ allocation is available for the active fleet. For example, NMFS would notify share recipients annually of a deadline (e.g., October 1st), and share recipients would inform NMFS by the deadline (e.g., December 1st) of their intent to fish with pelagic longline gear and/ or use the IBQ system. For example, communication by the share recipient could be required to be in writing or by a declaration in the IBQ system.

Justification: The option is intended to further optimize the annual allocation of IBQ by reducing the amount of quota allocated to permit holders that do not engage in fishing or leasing IBQ allocation (despite being defined as 'eligible' under a particular allocation method), and increase the amount of IBQ allocated to pelagic longline vessels that are fishing. This system would place responsibility on participants to request annual allocation for a given year.

Pros: This option would likely result in relatively more IBQ allocation being distributed to active fishery participants and less being allocated to inactive participants. Depending on the allocation method used and the number of participants, the amount of IBQ allocation disbursed could be more than what eligible fishery participants may otherwise receive. Requiring individuals to plan and request IBQ allocation could place further emphasis on individual accountability.

Cons: If share recipients do not request annual allocation from NMFS, or request allocation late, it would result in a share recipient not being allocated IBQ for the year. The vessel would need to lease IBQ in order to fish. The amount of quota optimization would depend on the allocation method. The system would increase annual administrative burden for share recipients and NMFS. This would not preclude all vessels from requesting IBQ and some still not fishing. This option may be better suited to an allocation method that is static, i.e., this Option may be redundant with Option A2 (annual allocation to active vessels), which shares a similar objective of reducing allocation to current share recipients that are not participating in the fishery.

Suboption A5b: Modify the current regulations and requirements for IBQ use in the Gulf of Mexico.

Description: Modify the rules regarding the use of IBQ to facilitate the ability for vessels that have historically fished in the Atlantic (and have some or all of their IBQ designated as Atlantic IBQ) to fish in the Gulf of Mexico. For example: Allow vessels to use Atlantic IBQ in the Gulf of Mexico during July through December, while spawning bluefin are not typically present in the Gulf of Mexico; or eliminate the designation of IBQ shares and subsequent allocations as either Gulf of Mexico or Atlantic (and the associated rules regarding their use), and instead specify a maximum amount of bluefin IBQ that could be used in the Gulf of Mexico to account for bluefin discarded dead and retained. For example, 35 percent of the quota available to the Longline category could be used in the Gulf of Mexico, which represents the percentage of IBQ designated as Gulf of Mexico IBQ under Amendment 7; or redesignate Atlantic and Gulf of Mexico IBQ shares based on a more recent time period to reflect recent fishing history (location).

Justification: Regional IBQ share designations (Atlantic and Gulf of Mexico) and the associated requirement that only Gulf of Mexico allocation can be used to account for bluefin catch in the Gulf of Mexico, were implemented to prevent potential increases in catches of bluefin in the Gulf of Mexico over historical levels. Such increases in catch could occur if fishing effort was redistributed from the Atlantic to the Gulf of Mexico (i.e., through vessel or permit transfers, IBQ leasing, or vessels fishing in the Gulf of Mexico). The limited amount of IBQ designated as Gulf of Mexico (based on historic catch location) under the Amendment 7 allocation method effectively caps the amount of bluefin catch that can occur in the Gulf of Mexico. Fishery participants with only Atlantic IBQ allocation, or little Gulf of Mexico IBQ, have requested that NMFS consider mechanisms that would facilitate access to fishing in the Gulf of Mexico, which is currently limited by the amount of Gulf of Mexico IBQ such vessels can lease. Modification of the rules regarding the use of IBQ in the Gulf of Mexico would provide greater flexibility for the fleet. These options would alter the method of capping the overall amount of bluefin caught in the Gulf of Mexico, but would retain a means to set a maximum amount of IBQ used in the Gulf of Mexico.

Pros: Providing mechanisms to facilitate access to fishing in the Gulf of Mexico for vessels that currently fish mostly in the Atlantic could increase landings of target species, and enhance fleet profitability. Program modifications that limit bluefin catch in the Gulf of Mexico may reduce the

complexity of the IBQ Program while still meeting conservation goals of protecting spawning bluefin tuna and full accounting for landings and dead discards. The relative amount of fishing effort in the Gulf of Mexico could be maintained at the same level as Amendment 7. The amount of bluefin caught in the Gulf of Mexico since the implementation of Amendment 7 has been relatively low. These options for constraining the use of IBQ allocation in the Gulf of Mexico may be more adaptable to the allocation options under consideration than the status quo method of Gulf of Mexico and Atlantic designations. Currently, 35 percent of the pelagic longline IBQ allocation is designated as Gulf of Mexico IBQ. Setting a maximum IBQ usage in the Gulf of Mexico at 35 percent of the total IBQ may be adequate to prevent increases in Gulf of Mexico fishing effort.

Cons: A new system of controlling the amount of IBQ allocation used in the Gulf of Mexico would cause some additional uncertainty in the fishery in the short-term. If there were an increased number of vessels fishing in the Gulf of Mexico that have not traditionally fished there, or given a cap on the amount of IBQ allocation that could be used in the Gulf of Mexico, there could be some disruption to markets or new dynamics among pelagic longline vessels such as competition for IBQ allocation leases or fishing grounds..

This option may negatively affect the value of the Atlantic Tunas Longline permits with IBQ share designated as Gulf of Mexico. Providing limited access to owners of permits with Atlantic category IBQ share and subsequent allocation may undermine the value of permits that have Gulf of Mexico category IBQ share and allocation (since it is of more limited supply). This option could also create a minor increase in the administrative burden for NMFS to implement the option.

Suboption A5c: Remove Northeast Distant Area catch and effort data from IBQ share and allocation calculations and from Gear Restricted Area access metrics.

Description: The data pertaining to bluefin or designated species caught in the Northeast Distant Area (NED) would be identified, and not be included in the implementation of management measures that use catch rates as a part of numeric metrics applied to individual vessels, such as determination of IBQ share percentages or conditional access to Gear Restricted Areas (GRA), such as the Cape Hatteras GRA. Fishing effort data associated with vessels fishing in the geographic area defined as the NED would not be included in management measures that use fishing effort as a part of numeric metrics applied to individual vessels such as determination of IBQ share percentages or annual allocations.

Justification: The different IBQ accounting rules applicable to vessels fishing in the NED area may result in different effects of other regulations on vessels fishing in the NED area.

The NED is a spatially managed area in the north Atlantic with its own bluefin tuna quota (separate from the Longline category quota) and specific gear and bait requirements. This fishing ground covers virtually the entire span of the western north Atlantic, as far east as the Azores and the Mid-Atlantic Ridge. The NED was defined through the U.S. rule-making process, but is in response to ICCAT recommendations regarding the allocation of bluefin quota to take into account bluefin

bycatch. Under ICCAT, the United States is allocated a total U.S. quota of bluefin, which includes a distinct 25-mt quota to account specifically for bluefin bycatch related to longline fisheries in the vicinity of the management area boundary. The NED quota is not included in the annual U.S. baseline quota that is subdivided between domestic bluefin quota categories. Vessels fishing in the NED ('NED vessels') are not required to account for bluefin catch via the IBQ system until the 25-mt quota has been caught (although they are subject to the minimum IBQ allocation rules). Vessels fishing in this area may adopt different fishing practices to maximize fishing opportunity for designated species while the 25-mt bluefin bycatch quota is available, versus when the 25 mt has been caught and then vessels must account for bluefin catch using IBQ allocation.

Because different IBQ accounting regulations apply to the NED area, and the 25 mt is a separate quota than the principal Longline category quota under the scope of the IBQ Program, it may not be appropriate for data associated with the NED set-aside quota (i.e., catch or effort metrics) to apply to IBQ management measures. Therefore, data regarding bluefin tuna or designated species caught under the NED set-aside, or fishing effort under the NED set-aside, should be excluded from IBQ share and allocation calculations, or the GRA access determinations. Further separation of the data regarding bluefin caught under the NED set aside from IBQ allocation formulas or GRA access metrics, would simplify management and increase fairness. For example, under an IBQ allocation system where vessels are allocated quota based on fishing effort, it may not make sense to allocate IBQ based on include fishing effort data under the NED set-aside in the formula that results in IBQ allocations, because NED vessels are not required to use IBQ in the NED to account for bluefin, unless 25 mt are caught, hence it may impact fishing practices as they may differ than those under the IBQ program.

In addition, catch rates of bluefin under the NED set-aside may have little relevance to fishing in the Cape Hatteras GRA, or other GRAs. Some of the vessels denied access to GRAs due to high bluefin interactions are accruing those landings under the NED set-aside while there is sufficient and separate quota to account for these catches (landings and dead discards). Including NED interactions that occur under the set-aside in performance metric evaluations, may result in a situation where fishermen are issued lower performance metric scores as a result of taking advantage of available fishing opportunities on designated species (e.g., swordfish).

Effort and bluefin landings from the NED, as a percentage of effort and bluefin landings in the Atlantic are shown in Figure 5 below.

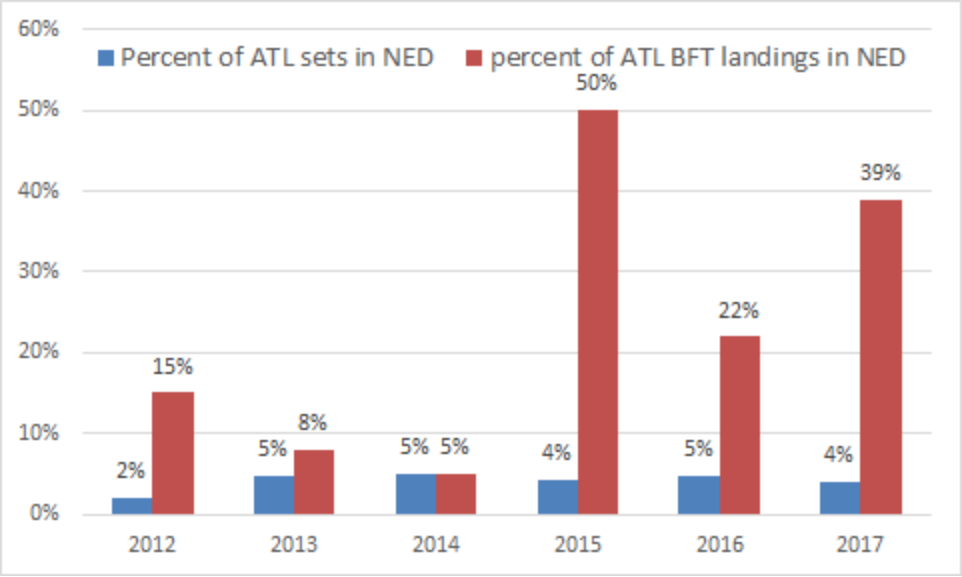

Figure 5. Percent of Atlantic (ATL) Sets and Bluefin (BFT) Landings from the NED.

Pros: Specific consideration of the use of NED data is relevant because the different accounting rules may result in different effects on vessels fishing in the NED area than those vessels fishing outside of the NED. Identification of NED data, and consideration of how the NED data is used in important determinations could make the effects of the regulations more consistent. The use of the data from the NED area in the context of IBQ allocations or GRA access determinations, would be made distinct from non-NED data). Both vessels that fish in the NED geographic area and those that do not fish in the NED area may perceive increased fairness, if the data from NED-caught bluefin are not a part of certain calculations, depending upon the metric under consideration. For example, for vessels that fish in the NED, and also wish to fish in the Cape Hatteras GRA, exclusion of NED-caught bluefin from a metric determining access to the GRA may facilitate their access. For vessels that do not fish in the NED, under an allocation system based on effort, the exclusion of NED effort from the calculation may increase perceived fairness, because NED vessels would not be allocated IBQ based on NED effort (and concurrently be able to fish in the NED and catch bluefin without using IBQ, until 25 mt from the NED are caught).

Cons: The question of whether bluefin or designated species catch, or effort data from the NED area is used in the calculation of important metrics such as IBQ allocations or the GRA metrics may be complex. Whether or not it is appropriate to use such data may depend upon if the bluefin catch form the NED geographic area was counted against the 25 mt NED set-aside, or if that catch was accounted for using IBQ (i.e., after the 25 mt has been caught). For data used in the IBQ allocations or GRA metrics, the data would need to be separated into two categories: data associated with catch for which no IBQ was used and data associated with the use of IBQ in the NED area. Because the number of vessels that fish in the NED are few in number, and the amount of fishing effort or bluefin catch in the NED area may be low, the net effect of specifically identifying and taking into account NED data may be minimal.

Cap on IBQ Share Ownership or Use

The following management options would consider placing a maximum cap on the amount of IBQ shares or allocation an entity can own or lease, including No Action (B1), a cap on the ownership of shares (B2), or a cap on the amount of IBQ allocation that may be used or leased by an entity (B3). Magnuson-Stevens Act requirements dictate that NMFS must ensure that limited access privilege permit holders do not acquire an excessive share of the total limited access privileges. Existing permit regulations limit the ownership/control of HMS permit to no more than five percent of vessels for which limited access permits have been issued (§ 635.4(l)(2)(iii)). The management options described below are intended to limit IBQ share ownership or use, and therefore include references to who or what is limited. In this context limitations are placed on "entities." In these management options, a single entity is defined as the Atlantic Tunas Longline permit holder, or Purse Seine Participant where that holder is an individual. Under Amendment 7, pelagic longline IBQ shares and IBQ allocations are only associated with entities that are associated with Atlantic Tunas Longline permits, and the options under consideration maintain that relationship. The underlying reason for that relationship is that the purpose of IBQ is for pelagic longline vessels to account for their catch of bluefin tuna. Therefore, the sale or lease of IBQ shares or quota to entities not associated with an Atlantic Tunas Longline permit (such as a fish dealer, bank, or non-government organization (NGO)), is not consistent with the underlying objectives of the IBQ Program, and therefore not under consideration. Under current regulations IBQ may only be leased to vessels with an Atlantic Tunas Longline permit.

Management Option B1: No action.

Description: This option would maintain the current IBQ Program regulations, implemented by Amendment 7 in 2015 and modified by subsequent management actions, with no specific caps on the amount of IBQ shares or allocation a single entity (with an Atlantic Tunas Longline permit or purse seine participant) may own or lease. Under current regulations, a vessel owner could, in theory, lease all of the quota in the Longline or Purse Seine category. Although shares are not currently allowed to be sold, they are associated with Atlantic Tunas Longline permits, which may be sold. There is currently a limit on the percent of vessels (five percent), to which HMS limited access permits have been issued, that a person or entity may own or control. This effectively places an indirect limit on accumulation of IBQ allocation. An entity with a permitted vessel may lease IBQ to or from other permit holders for the duration of a year (i.e., leases expire at the end of a calendar year).

Justification: Under the current IBQ Program, an Atlantic Tunas Longline permit holder may not permanently purchase IBQ from a share recipient, therefore, excessive shares through the direct purchase of IBQ is not possible. Although entities may purchase multiple Atlantic Tunas Longline permits, entities are indirectly prevented from lawfully accruing excessive shares resulting from the purchase of multiple permits by existing regulations, which limit the ownership/control of HMS permit to no more than five percent of vessels for which limited access permits have been issued (§ 635.4(l)(2)(iii)). Although there is a relatively high limit on the leasing of IBQ allocation (i.e., the combined Longline and Purse Seine category allocations), the duration of these leases is limited to a

single year with no rollover provision. The IBQ Program has been functioning under these regulations since 2015, and there have been no reported or observed issues relating to excessive accumulation of IBQ shares or allocation. As described in the Draft Three-Year Review, the maximum amount of IBQ allocation that a single entity owned or leased on an annual basis was 9 percent and 12 percent of the total allocation, respectively. It is important to note that the IBQ Program is designed to manage bluefin, a bycatch species, therefore, it is likely that there is a lower incentive for vessel owners to accumulate large amounts of IBQ (either through leasing or ownership of permits), compared to catch share programs managing targeted species. Only the portion of the fleet that routinely catch bluefin have a consistent incentive to accumulate IBQ allocation to augment the amount of IBQ allocation distributed annually.

Pros: Not implementing a cap on IBQ share accrual may keep the IBQ Program flexible with respect to the amount of shares an entity may own or the amount of allocation an entity may lease, and allow efficient access to IBQ by those entities that need it to fish with pelagic longline gear, given the bycatch aspect of this particular fishery.

Cons: The No Action option may not continue to adequately ensure that limited access privilege holders do not acquire an excessive share of the total limited access privileges in the program by (i) establishing a maximum share, expressed as a percentage of the total limited access privileges, that a limited access privilege holder is permitted to hold, acquire, or use; and (ii) establishing any other limitations or measures necessary to prevent an inequitable concentration of limited access privileges. The No Action option may not be appropriate if the regulations are modified to allow permanent sale of IBQ shares. Theoretically, there is also the potential that an entity could accumulate a sufficient percentage of IBQ that could negatively affect other pelagic longline vessels in the fishery by preventing them from leasing IBQ quota. This 'market power influence' might be exerted on a regional basis, using predatory pricing, or other means, resulting in barriers to entry and erosion of competition, and result in negative economic impacts on some longline vessels. However, given the international nature of the market for HMS and the United States' small role in the international market, there is a low likelihood that an entity could exert market power by accumulating IBQ. The domestically caught swordfish, the primary target species of this fleet represents only about ten percent of the domestically marketed swordfish. Although some fishery participants may be affected by accumulations of IBQ quota, the overall market and consumers would be little affected. Although there is a current regulation limiting consolidation to no more than five percent of vessels, this limit could be re-evaluated to determine whether it is relevant in the context of the IBQ Program, and consideration of IBQ caps.

Management Option B2: Establish a cap on the percent of pelagic longline IBQ shares that can be owned by a single entity.

Description: This option would cap the percentage of IBQ shares, and resulting allocation, that an entity could own. The cap would be set at between 9 and 50 percent of the total IBQ shares and on the amount of pelagic longline IBQ allocation associated with the owned IBQ shares. The maximum share amount would apply whether the shares were accrued through the ownership of multiple

Atlantic Tunas Longline permits or accrued through direct sale of quota shares, if allowed in the future (see section 3.3). It should be noted that the percentage of total shares that an entity owns may be different from the percentage of total allocation associated with those shares, if not all shareholders are allocated IBQ, such as those cases where permits are not associated with vessels. Both metrics are likely to be relevant to a discussion of limiting control of the amount of IBQ shares an entity may own, or amount of IBQ quota an entity may accumulate through annual allocation or leasing

Justification: This option would cap the amount of shares a single entity could own to prevent excessive control over shares by a single entity. Entities are indirectly prevented from accruing excessive shares resulting from the purchase of multiple permits by existing regulations, which limit the consolidation of HMS limited access permits to no more than five percent of vessels. In 2017, the maximum amount of shares a single entity owned resulted in an annual allocation that was 9 percent of the total annual allocation (i.e., the Longline category quota), therefore, the lowest value in the range of values for the cap suggested for consideration is 9 percent, for the purposes of discussion during scoping.

Pros: This option would ensure a single entity cannot acquire an excessive share under the current IBQ Program regulations. As noted in Amendment 7, a limit on the accumulation of quota shares may reduce the likelihood of changes in the characteristics of the pelagic longline fishery that have negative effects on participating vessels or fishing communities, or potential new participants (e.g., the number of active vessels, distribution of fishing effort, inequitable concentration of limited access privileges). In addition, it was noted in Amendment 7 that a cap on quota share accumulation may have beneficial social and economic impacts by avoiding equity issues and reduce concerns about market power concentration that would otherwise occur if a few large operators were able to accumulate a significant share of the IBQ.

Cons: This option could limit the flexibility of the IBQ Program and limit the ability of those pelagic longline fishery participants that need additional IBQ to be able to access it on a permanent basis, rather than through annual leases. In addition, there have been no reported or observed issues relating to excessive accumulation of IBQ allocation, as described in the Draft Three-Year Review, and the amount of total IBQ allocation that a single entity controlled was less than 9 percent of the total annual allocation of IBQ.

Management Option B3: Establish a maximum cap on the amount of IBQ allocation that can be leased or used by a single pelagic longline entity.

Description: This option would cap the percentage of IBQ allocation that an entity could accrue through leasing. The cap would be set at between 12 and 50 percent of the total amount of Longline category quota.

Justification: Under the current IBQ Program, as described in Amendment 7, the initial limit on the amount of quota allocation an individual pelagic longline fishery participant could lease annually is

the combined Longline and Purse Seine category allocations. In Amendment 7, NMFS further noted that more refined limits could be developed later through proposed and final rulemaking consistent with the framework provisions in the HMS regulations. A more refined cap on the amount of IBQ allocation an entity can accrue through leasing may be needed to prevent concentration of IBQ allocation, and potential issues relating to unequal distribution of IBQ allocation or influence over the IBQ leasing market. In 2017, the maximum amount of allocation a single entity owned and leased, combined, was 12 percent (on an annual basis), therefore, the lowest value in the range of values for the cap suggested for consideration is 12 percent.

Pros: This option would address concerns described above, by establishing a limitation to prevent an inequitable concentration of limited access privileges, under the current IBQ Program regulations or future regulations that allow continued leasing of IBQ allocation.

Cons: This option could limit the flexibility of the IBQ Program and limit the ability of those pelagic longline fishery participants that need additional IBQ to be able to access it. In addition, there have been no reported or observed issues relating to excessive accumulation of IBQ allocation, as described in the Draft Three-Year Review, and the amount of total IBQ allocation that a single entity controlled was less than 12 percent of the total annual allocation of IBQ.

Allow Permanent Sale of IBQ Shares

The following management options would consider sale of IBQ shares among Atlantic Tunas Longline permit holders associated with a vessel. Potential options include no action or allowing permanent sale.

Management Option C1: No action.

Description: This option would retain the prohibition on the permanent sale of IBQ shares as established under Amendment 7, but would continue to allow the leasing of quota allocation.

Justification: The current market for IBQ leasing has been improving each year and most participants can now find quota in the leasing market. There has not been a demand by participants to allow for permanent sale.

Pros: The No Action option would maintain the current market dynamics of the IBQ leasing market, which has been working well in recent years. Allowing for the permanent sale of IBQ shares could disrupt this young market. Permanent sale has an associated risk that it could result in excessive accumulation of shares by individual vessel owners and further cause industry consolidation. By not allowing permanent sale early in the development of this catch share program, the fleet has avoided issues associated with participants selling their shares without sufficient information on the value of those shares. The current prohibition on permanent sale has also limited any issues with the accumulation of excessive shares or industry consolidation. The current ability of vessel owners to sell their vessel, permit, and IBQ share together to another entity has appeared to provide sufficient flexibility to allow exit and entry into the fishery.

Cons: Without the ability for permanent sale, there is less flexibility for vessel owners to address their need for additional IBQ. Vessels with insufficient IBQ for their operations currently must enter the leasing market to address their needs to comply with the quarterly accountability management measures. Permanent sale would allow those participants a longer term solution to address their needs for IBQ. In addition, vessels that have more IBQ than they need, may not accrue any revenue from unused IBQ if they do not participate in the leasing market each year. There are transaction costs associated with the need to be involved in annual leasing.

Management Option C2: Allow sale of shares to owners of Atlantic Tunas Longline permits associated with a vessel.

Description: This option would remove the prohibition on the permanent sale of IBQ shares to owners of Atlantic Tunas Longline permits associated with vessels. Vessel owners would be allowed to sell a portion or all of the IBQ share associated with their permits. Alternatively, sale of IBQ shares could be limited to certain increments of IBQ shares, such as the total shares associated with a particular permit.

Justification: Allowing owners of eligible permits (i.e., shareholders) to permanently sell IBQ shares may provide increased flexibility for permit holders to address their need for additional IBQ. Permanent sale would allow participants that rely on annual leasing of IBQ a longer term solution to address their needs to obtain IBQ to account for bluefin catch. The market for IBQ leasing has developed over the past three years. IBQ share recipients may have gained sufficient experience with the market now to better understand the value associated with shares. Some businesses in the fishery have expanded while others have contracted, therefore, there could be some need for the permanent sale of share to better match the IBQ needs of some business given these changes.

Pros: This option would provide IBQ share recipients greater flexibility in managing their IBQ and accounting for bluefin by providing a long-term means transferring IBQ among permit holders to address their needs. It would also allow new entrants without shares the opportunity to acquire shares on a permanent basis, instead of having to lease IBQ allocation to fish.

Cons: Allowing permanent sale of shares could create uncertainty in the fishery and in the IBQ leasing market due to the novelty of sale, and insufficient information on the value of shares for sale versus lease. Allowing permanent sale could also lead to issues with the accumulation of excessive shares or industry consolidation, unless a cap on share ownership is also implemented (see section 3.2). It is not known how the permanent sale of shares would affect the IBQ leasing market, and the availability of IBQ quota for lease at an affordable price. Allowing the sale of quantities other than the share tiers (percentages associated with low, medium, and high tiers), would result in fragmentation of the IBQ shares, making the program more difficult to manage (both on an annual and inseason basis). Fragmentation of share percentages could also lead vessel owners to have very small share amounts that may not comply with the minimum allocation requirement for fishing.

Permanent sale of shares may not be applicable to an annual allocation method based on annual activity or effort (see section 3.1).

Adjustments to Other Elements of the IBQ Program

The management options described below are relatively minor aspects of the IBQ Program, including modifications to monitoring or reporting requirements supporting the Program. The underlying objective for such adjustments is to reduce regulatory burden, increase efficiency, or optimize the effectiveness of existing regulations without erosion of the key functional elements of the IBQ Program. As with other sections of this scoping document, additional ideas for such changes generated by the public may be considered. Maintaining the current regulations (i.e., No Action) associated with each of the management options below will also be considered. However, a separate discussion of each No Action option associated with of the management option is not included in order to streamline this document. Any future analysis of management alternatives in an environmental analysis would be compared to the No Action alternative.

> **Management Option D1: Remove the requirement that a vessel owner/operator enter dead discard data via the IBQ system when the dealer landing transaction is submitted (and report through VMS instead).**

Background: Vessel owner/operators are currently required to coordinate with dealers to enter data on bluefin discarded dead into the IBQ system via the dealer's account, when a dealer is entering data on bluefin purchased from the vessel owner/operator, at the end of a fishing trip. This requirement was instituted to ensure accurate dead discard data is collected and entered into the IBQ accounting system, and associated with the correct vessel account, in support of Amendment 7 objectives.

Description: This management option would remove the requirement that any vessel owner or operator who discarded dead bluefin tuna is required to enter dead discard information from the trip by coordinating with the dealer and entering that trip's landings information into the electronic IBQ system via the dealer account. Instead the source of real-time dead discard data would be the VMS data discard data entered by the vessel operator via the bluefin set report, from sea. Logbook and Observer reports, as well as electronic monitoring data include dead discard information, but are not available until a substantial period of time has elapsed.

Justification: The current requirement that vessel operators coordinate with dealers to enter dead discard data into the IBQ system at the end of a trip has been difficult for vessel operators. As a practical matter, vessel operators may not be present when dealers are entering landings data into the IBQ data management system, and very little discard information has been entered into the IBQ system using the dealer portal. Dealers may not be aware of the number or size of dead discards since the fish are not present at the time of landing the rest of the vessel's catch. Vessel operators have successfully reported bluefin dead discard data in 'real-time' via VMS set reports, which have been integrated into the IBQ system. At the onset of the IBQ Program, VMS data had to be manually input into the IBQ system for accounting purposes, but now that function has been integrated so

VMS data are automatically entered into the IBQ system, which debits the appropriate vessel account based on the size of the bluefin discarded. Although the requirement to report dead discards via the dealer's IBQ account was considered useful as verification of VMS submitted dead discards, operationally it has not served this purpose. It is important that vessel operators submit dead discard data in 'real-time' (i.e., soon after the occurrence) to support quota monitoring and reporting obligations, as well as to inform future management actions and evaluations.

Pros: This option would reduce the reporting burden on vessel owner/operators and dealers. During 2018, NMFS fully automated the integration of VMS dead discard data into the IBQ system, which streamlined the tracking and accounting of bluefin dead discards based on VMS data. Because dead discard reporting that occurs through VMS has been consistent, and NMFS has integrated the data stream into the IBQ system, removing the requirement that the vessel operator also coordinate with the dealer to report bluefin dead discards would reduce duplicative reporting requirements, while remaining consistent with Amendment 7 objectives. This option would continue the availability of real time dead discard data, and enhance the efficiency of the process.

Cons: Dead discard data entered into the dealer portal could serve as a back up to VMS reported data, in case VMS systems or supporting infrastructure are incapable of transmitting information.

Management Option D2: Modify the requirement regarding submission of electronic monitoring computer hard drives at the end of each trip.

Description: This option would require hard drives submission less frequently. For example, two concepts are submission of the hard drive(s) only when each hard drive has reached full capacity, or submission of the hard drive(s) at the completion of every two trips.

Justification: Under current regulations, vessel operators are required to mail in the computer hard drive from the EM system at the end of each pelagic longline trip, regardless of how full the hard drive is (how much memory is left on the hard drive). This option would reduce the burden and cost for the vessel operator by enabling them to mail in hard drives to the third-party contractor less frequently. Hard drives contain one terabyte of storage and are able to handle a large amount of video data. Hard drives are rarely submitted at full capacity, with the average hard drive at approximately 18 percent capacity, after a fishing trip.

Pros: Less frequent shipping provides an economic benefit to fishermen, by reducing the costs of shipping. Additionally, a cost savings to the agency may occur if the frequency of shipping related hard drive damage (and associated data loss) is reduced, therefore, reducing replacement costs of the hard drives. Less frequent shipping could additionally extend the lifespan of the drive, by minimizing the handling impacts.

Cons: Using a single hard drive to record video and data from multiple trips would increase the amount of data lost if a particular hard drive is damaged or lost. No longer having a one-to-one correspondence between the number of pelagic longline trips and the number of EM hard drives

submitted would make oversight of the program by NMFS more difficult, and make enforcement by NOAA's Office of Law Enforcement more complex. Vessel operators would need to carefully monitor the amount of memory left in the hard drives (or monitor which trip they need to send in, if submitting every other trip) to determine when to send in the hard drive, and ensure that a drive has adequate memory to record a trip if not sent in. Detection of mechanical issues with the hard drives by the NMFS contractor would be more difficult if the drives were sent in less frequently. Reviewing video footage for a particular trip or set may be more challenging because it is possible that a single trip could be split among two hard drives. A requirement that the hard drives are submitted every two trips (unless full), may be simpler for NMFS to implement.

Management Option D3: Install a boom-mount for the video camera that is positioned to capture the area out-board of the rail.

Description: This option would require that the camera that is viewing the rail and out-board area, be mounted on a boom if necessary to enable a camera angle that provides a field of vision that more fully includes relevant fishing activity. This view would be a wide angle that would capture the entire hauling activity of the fish while coming on board the vessel over the rail. The boom would likely be a customized piece of hardware that is fixed or movable (e.g., lowered prior to fishing activities starting) to provide the optimal view of the area of the water surface and outboard of the rail, down to the water surface, where the fish are hauled out of the water.

Justification: Current EM systems have a minimum of two cameras, one facing the processing area of the deck where the retained fish are processed, and the other facing the rail where fish are brought on board. This current camera configuration allows for full view of the processing area and a limited view of the rail camera. Requiring that the rail facing camera be mounted on a boom if necessary would provide the opportunity for a wider view of the rail and and enhanced view of hauling activities to better capture discard and retention events.

Pros: This option would provide for a larger field of view of the hauling area, that is facing toward the vessel instead of facing away, increasing the likelihood of capturing images of both discarded and retained fish at the rail.

Cons: There would be an added cost of customized design, fabrication, and installation of booms to the fleet and/or the Agency. There is potential for interference of booms with pilings or other vessels at the dock.

Management Option D4: Require the use of a measuring mat to increase accuracy of size estimation during video review, and/or require specific gear retrieval and/or fish handling protocols to obtain unobstructed views of these activities by the video camera(s).

Description: This option would require the use of a mat in the processing area that is a standardized size, with markings on the mat that would enable the video analyst to have standardized reference

to use as an aide in the estimation of fish size, and/ or would require specific gear retrieval and/ or fish handling protocols to obtain unobstructed views of these activities by the video camera(s).

Justification: Size estimation of retained bluefin is an essential component of the electronic monitoring program as bluefin are managed by size classes. Electronic monitoring analysts currently use items on the deck as a relative reference for estimating size, such as fish boxes, baskets, polly balls, etc. Accurate measurement of bluefin via the electronic monitoring system is critical to ensure IBQ audit requirements are enforced accurately, since bluefin are a quota managed species and average weights of size classes are used to manage that quota. If bluefin are inaccurately measured it could affect the accuracy of the audit process used in the IBQ system. Although there is currently a regulation that requires the vessel operator to ensure that all fish are handled in a manner that enables the video system to record such fish, there are no specific requirements on how fish or gear should be handled.

Pros: Measuring mats would allow for better size estimation and auditing process by standardizing the measuring process for all vessel. The resultant size estimation would be less affected by camera placement, since all estimation will be relative to the mat. An improvement in accuracy of size estimation may also have indirect benefits by reducing reliance on other data sources that provide fish size information. A reduction in reliance on other data sources could reduce other reporting burdens to the vessel operator. Specification of more specific gear or fish handling protocol could increase the effectiveness of the EM Program by obtaining more numerous images of bluefin and/or images of bluefin that are more easily identified through human or automated review.

Cons: There would be an additional cost on the Agency or the fleet in order to purchase mats for each vessel. The measuring mats would somewhat increase the complexity of fishing operations, and possibly reduce the efficiency of fish handling. Additional requirements on gear or fish handling protocol could disrupt current practices and result in some reduced efficiency of gear and fish handling, and may be difficult to enforce.

Management Option D5: Remove PIN validation requirement to conduct bluefin landing transactions.

Description: This option would eliminate the current requirement that vessel operators or owners confirm that the landing report information entered into the IBQ system by the dealer is accurate, by entering the PIN associated with the vessel account (pursuant to §635.15(b)(4)(iii). This option could be combined with a new email notification by NMFS via the IBQ system (or a message within the IBQ system) that would inform the vessel owner when a dealer conducts a transaction with that vessel's IBQ account to provide a means of vessel operator oversight of dealer transactions with their IBQ vessel account.

Justification: The intent of this requirement was to provide an opportunity for vessel operators to ensure accurate information regarding bluefin transactions with the dealer and correct accounting of bluefin in the IBQ computer system and vessel IBQ accounts. In practice, most vessel owners

have not entered their PIN into the IBQ system at the time of offloading. Vessel operators have instead provided their vessel's IBQ PIN to the dealer with whom they usually conduct business to enable the dealer to retain the PIN and enter the number each time a bluefin landing (from that particular vessel) occurs, to streamline logistics and communication during offloading. Secondly, providing the PIN to the dealer on a one time basis has provided the dealer the flexibility to delay the time of data entry until sometime after the landing of the fish, while still complying with the requirement that the dealer electronically submit the data no later than 24 hours after receipt of the bluefin tuna. Accurate data entry of pelagic longline bluefin landings information into the IBQ system by dealers has not been a problem, with the exception of limited late data entry.

Pros: This would streamline the logistics of landings data entry for both the dealer and vessel operator/owner, and simplify the regulations.

Cons: There could be some increased risk of incorrect bluefin data entry if dealers are not required to input a PIN number associated with a vessel. There is a cost to NMFS associated with modifying the supporting computer program.

Management Option D6: Remove shortfin mako from "designated species" for purposes of Gear Restricted Area performance metrics and IBQ tier share and allocation calculations.

Description: Under § 635.14(b)(1), NMFS has defined designated species, for the purpose of calculating the bluefin interactions performance metric, as swordfish; yellowfin, bigeye, albacore, and skipjack tunas; dolphin; wahoo; and porbeagle, shortfin mako, and thresher sharks. Landings from the three previous years of HMS logbook data are summed for the designated species and compared to the number of bluefin interactions to calculate a bluefin interactions to designated species landings ratio. This ratio is then compared to a score rubric to derive a "bluefin avoidance score." This option would remove shortfin mako from the list of species used to calculate designated species landings for annual performance metric calculations.

NMFS is also considering new IBQ tier and share calculations (see section 3.1). As part of the initial tier and share calculations described at § 635.15(k)(2)(i), NMFS used the same list of designated species to tabulate landings for purposes of placing vessels into low, medium, and high tiers to assign each vessel a share amount. NMFS could elect to not include shortfin mako landings in relevant calculations to reassign shares to permits.

It should be noted that NMFS is considering removal of the performance metrics associated with the Gear Restricted Areas. A proposed rule considering the continued need for specific area-based and weak hook gear measures, given implementation of the IBQ Program and its effectiveness in reducing and managing bluefin interactions in the longline fishery, is planned for publication during Spring 2019. NMFS published an NOI to prepare a draft environmental impact analysis for this action on March 2, 2018 (83 FR 8969), and held scoping meetings during March and April of 2018.

NMFS has begun the rulemaking process and is soliciting input from the public, and analyzing alternatives including the status quo Gear Restricted Area regulations.

Justification: On December 13, 2017, NMFS determined that North Atlantic shortfin mako sharks are overfished with overfishing occurring. To address overfishing and to ensure that timely data was provided to ICCAT under a provision in Recommendation 17-08, NMFS finalized an emergency interim final rule (83 FR 8950; March 2, 2018) and a proposed and final rule implementing Amendment 11 to the Consolidated Atlantic HMS FMP (84 FR 5358; February 21, 2019) with long-term measures. The commercial measures in these rules were designed to reduce fishing mortality on shortfin mako sharks including by only allowing retention of shortfin mako under specific conditions. The use of a ratio to calculate the bluefin avoidance score may incentivize commercial fishermen to increase landings of designated species, including shortfin mako.

Pros: Removing shortfin mako from the list of designated species for purposes of calculating this performance metric is consistent with current management objectives to reduce mortality of shortfin mako, and provides clearer messaging concerning these new objectives to the public. The impact of removal of shortfin mako from the calculations is likely to be small, due to the numbers of shortfin mako relative to the total catch. Shortfin mako catch reporting requirements would not be affected.

Cons: Commercial fishermen are allowed to retain shortfin mako that are dead at haul-back. Not including these fish might reduce designated species landings for vessels in areas where shortfin mako comprise a high component of the designated species landings. Not including shortfin mako in relevant calculations to assign permit shares may reduce landings that were otherwise legal and/or consistent with management objectives at the time of landing.

Management Option D7: Clarify regulations regarding retention of bluefin tuna with green-stick gear by vessels with an Atlantic Tunas Longline category permit.

Background: Green-stick gear has been an authorized gear type for holders of Atlantic Tunas Longline category permits since 2008, allowing permit holders to use the gear for directed fishing for target species (i.e., albacore, bigeye, and yellowfin tunas) and incidental catch of bluefin tuna (see 73 FR 54721; September 23, 2008). Regulations authorizing this gear use specified adherence to target catch requirements applicable to Longline category incidental retention of bluefin tuna.

Adoption of the IBQ Program in Amendment 7 in 2015 changed the regulations for Atlantic Tunas Longline category permit holders to specify that they could only retain incidentally-caught bluefin in compliance with the IBQ Program requirements, including the use of IBQ allocation to account for such catch. These regulations, however, applied only to vessels fishing with pelagic longline gear. Amendment 7 also eliminated the previously-applicable target catch requirements for retention. Furthermore, the regulations did not specify a retention limit for green-stick gear fished under Longline category permits and did not specify whether vessels fishing with green-stick gear (and not having pelagic longline gear onboard) must or may comply with requirements of the IBQ

Program to incidentally retain and land bluefin tuna. Thus, while green-stick technically remained an authorized gear for incidental retention of bluefin tuna, practically such retention could not occur consistent with the Amendment 7 regulations and IBQ Program requirements.

In the Gulf of Mexico, the Deepwater Horizon Oceanic Fish Restoration Program (OFRP) does not allow any bluefin tuna retention with green-stick or any other gear, during a repose from pelagic longline gear use consistent with OFRP terms. The OFRP specifies, however, that IBQ must be used by those vessels to account for any dead discards. Outside of that program, under current regulations, bluefin landed with green-stick gear cannot be accounted for through the IBQ Program. Furthermore, such catch would be considered in excess of the retention limit for this gear, and the prohibitions at § 635.71(a)(48) and (49) prohibit the sale or purchase of any HMS offloaded from an individual vessel in excess of the retention limits. This management option would clarify the current regulations regarding retention of bluefin tuna by vessels with an Atlantic Tunas Longline category permit.

Description: Regulations would be amended to clarify that vessels with an Atlantic Tunas Longline category permit would be authorized to retain bluefin caught with green-stick gear, subject to certain conditions. Provisions associated with retaining bluefin captured with green-stick gear might include establishing retention limits; and clearly specifying reporting, IBQ Program, and monitoring requirements, such as EM, for example.

Justification: NMFS has recognized that green-stick gear, under certain conditions, can be a viable alternative gear for fishery participants with an Atlantic Tunas Longline permit. Such fishery participants have requested additional flexibility to take advantage of fishing opportunities. The current regulations regarding the use of green-stick gear by Atlantic Tunas Longline ' permit holders are potentially confusing and could be simplified and clarified, especially with respect to retaining incidentally-caught bluefin during directed fishing operations for other authorized species

Pros: As noted above, there are gaps in the regulations concerning the use of green-stick gear that could be addressed to provide clarification to fishermen and provide some new opportunities for vessels using green-stick gear.

Cons: If the regulations were clarified to explicitly allow the retention of bluefin by Atlantic Tunas Longline permit holders using green-stick gear, such a situation may blur the lines between incidental and directed fishing for bluefin, and make enforcing gear restrictions more difficult. Depending upon how the rules are clarified, a new precedent could be set whereby there is directed fishing on bluefin by such vessels, especially late in the year. If vessels were allowed to catch bluefin in this manner, reporting and accounting rules would need to be developed. The reporting and accounting rules would need to address questions such as: *Are the bluefin caught by green-stick gear accounted for using IBQ? Do EM operational or VMS reporting requirement apply? Should a new separate quota category be created?*

Purse Seine Management Measures

Management options discussed below are related to potential changes to the current management of the Atlantic tunas Purse Seine category. Management options include maintaining the existing Purse Seine category regulations, and partially or fully discontinuing the category (either upon finalization of an action associated with this issues and options paper or at a future date). Relevant data related to this gear/permit category (Purse Seine category) are presented in this section. Each of the management options for the Purse Seine category is related to the objectives of this potential action. The following options consider ways to determine if a change in management of the Purse Seine category would potentially optimize the Atlantic bluefin tuna fishery. The purse seine fishery has been relatively inactive over the past 15 years and it may be appropriate to modify the management of the category as this quota category is allocated 18.5 percent of the U.S. baseline quota. Under Amendment 7, NMFS took actions to amend regulations to reallocate unused purse seine quota, yet allow permit holders to reenter the fishery. Purse Seine category participants may lease IBQ to or from Atlantic Tunas Longline permit holders (on a temporary basis).

Management Option E1: No action.

Description: This option would maintain all aspects of the current Purse Seine category regulations. Under current regulations, 75 percent of the baseline Purse Seine quota is reallocated annually to the Reserve category, if there is no catch of bluefin by the Purse Seine category during the previous year. In the last few years, 75 percent of the Purse Seine category quota has been reallocated to the Reserve; for 2018, this amount was approximately 165 mt. This transfer substantially increases the Reserve category quota (baseline of 29.5 mt) and allows its use by active fishing categories. Purse seine participants currently are able to receive and lease IBQ to other purse seine participants and to pelagic longline vessels. Although there are no currently permitted purse seine vessels, participants could resume fishing if they obtain a purse seine vessel.

Justification: From 1983 through 2000, the annual landings of bluefin by the purse seine vessels was between 245 and 398 mt, representing a substantial portion of the U.S. annual bluefin tuna catch. The last year during which purse seine landings approached that level was in 2005 (178 mt). Subsequently the fishery has been relatively inactive. However, Purse Seine category participants currently are able to receive and lease IBQ to other Purse Seine category participants and to Atlantic Tunas Longline permit holders through the IBQ system, and purse seine IBQ leases have represented a meaningful percentage of the pelagic longline IBQ leasing market.

Pros: This would allow for historical Purse Seine category participants to continue to receive (and potentially lease) their annual quota allocation based on bluefin catch during the prior year. It would maintain the potential for Purse Seine category participants to fish the quota allocated to them under the Amendment 7 process, considering their previous year's fishing activity, provided they obtain a Purse Seine category permit for a vessel they own. Continuation of the Purse Seine

category regulations in their current form would likely result in a large amount of quota continuing to be reallocated annually to the Reserve, for potential transfer inseason to other categories.
Cons: Continuation of the Purse Seine category regulations in their current form would result in continued uncertainty and underutilization of bluefin quota, while other categories may be quota limited. There may be continued opportunity costs for participants of other categories as a result of quota being allocated to the Purse Seine category thus not available to other permit categories.

Management Option E2: Discontinue Purse Seine category.

The five management options described below include a range of concepts designed to partially or fully discontinue the Purse Seine category through redistribution of Purse Seine category quota, limitations on purse seine fishing and leasing, or permanent sale of purse seine quota. These concepts could be implemented either upon finalization of an action associated with this issues and options paper or at a future date. The pros and cons associated with discontinuing the category have broad similarities among the species suboptions, which represent different methods of discontinuing the fishery. The pros and cons that apply broadly to all the suboptions are described immediately below, whereas the pros and cons specific to each Suboption are located beneath each suboption.

Pros: Reallocation of the Purse Seine category quota would eliminate the multiple types of uncertainty that results from the current status of the Purse Seine category, provide additional quota to active fisheries, and increase the likelihood that more of the U.S quota will be utilized.

Cons: Reallocation of the Purse Seine category quota would preclude future opportunities that could otherwise accrue to current Purse Seine category participants as a result of being allocated bluefin quota, although such opportunities currently are not realized (except for a small amount of leasing) because the fishery is not active. The leasing of purse seine quota would no longer occur under this option, resulting in loss of a relatively small portion of the leased IBQ to the longline fishery and associated revenue for the Purse Seine category participants.

Suboption E2a: Reallocate Purse Seine quota proportionately among the other bluefin quota categories.

Description: This option would discontinue the Purse Seine category upon implementation of a future FMP amendment contemplated in this scoping document, and reallocate the bluefin quota associated with the Purse Seine category (currently 18.6 percent of the baseline after adjustment) to the other quota categories in proportion to their percentage allocations, as shown in Table 6. For example, if a reallocation were strictly according the current percentages, adjusted for removal of the Purse Seine category, the new quota category percentages would be as shown in Table 6.

Table 6. Reallocation of Bluefin Quota Associated with the Purse Seine Category under Suboption E2a

Quota Category	Current Percent	Increase	New Percentage
Purse seine	18.6%	na	na
General	47.1%	10.7%	57.8%
Angling	19.7%	4.5%	24.2%
Longline	8.1%	1.8%	9.9%
Harpoon	3.9%	0.9%	4.8%
Reserve	2.5%	0.7%	3.2%
Trap	0.1%	0%	0.1%
Total	100%	18.6%	100%

To determine the new quota percentage for each category, we subtracted 18.6 percent from 100.0 percent to get the total percentage of 81.4 percent, which we use to represent the total quota that would be allocated without the purse seine portion. For each quota category, we then divided its current allocation percentage by 81.4 to get the new percentage (e.g., for the General category, 47.1/81.4 x 100% = 57.8%). Then we subtracted the current percent from the new percentage to arrive at the increase (e.g., for the General Category, 57.8% - 47.1% = 10.7%).

Justification: Redistribution of the quota that would become available if the Purse Seine category were discontinued, among the quota categories in proportion to the category percentages, is a relatively simple method of reallocating quota,

Pros: With respect to this specific method of reallocation, the logic underlying this method is simple, and may be perceived as fair, because it is based on percentages utilized for recurring quota allocations. Reallocation to the non-Purse Seine quota categories increases the chances that the quota will be utilized.

Cons: With respect to the specific method of reallocation, if interested parties do not support the current percentage allocations associated with the bluefin quota categories they are not likely to support the division/reallocation of the Purse Seine quota based on those percentages.

Suboption E2b: Reallocate Purse Seine quota to the Reserve category.

Description: This option would discontinue the Purse Seine category upon implementation of Amendment 13, and reallocate the bluefin quota associated with the Purse Seine category (currently 18.6 percent) to the Reserve quota category, increasing its percentage from 2.5 percent to 21.1 percent.

Justification: Allocation of the quota that would become available if the Purse Seine category were discontinued to the Reserve category is a simple method of reallocating the quota, in a manner that would provide flexibility in the future use of the quota.

Pros: Reallocating all of the quota associated with the Purse Seine category to the Reserve category would be simple, and provide maximum flexibility for the use of this quota that could vary based on the needs of the U.S. fishery in any given year. The quota needs of the bluefin fishery is highly variable due to the variable distribution (temporal and spatial) of bluefin and other factors.

Cons: Reallocating to the Reserve category would create increased uncertainty for fishery participants on an annual and continuing basis, because the details would be unknown regarding any potential allocation of this additional quota from the Reserve to other quota categories inseason. The administrative burden for NMFS would increase due to the need to make annual decisions regarding the use of a larger amount of quota allocated to the Reserve.

Management Option E3: Discontinue Purse Seine category at a future date.

NMFS would discontinue the Purse Seine category fishery after a set number of years (for example, after one, two, or other number of years from the effective date of a subsequent final rule). Whether the fishery continues under current regulations during the interim period between implementation of new regulations until the date the category is discontinued, or is modified until it is discontinued, represent suboptions, described below.

Suboption E3a: Allow current Purse Seine category participants to lease IBQ allocation, but not fish using purse seine gear (until the Purse Seine category is discontinued at a set future date).

Description: This option would modify the current Purse Seine category regulations, to allow current Purse Seine category participants to receive annual allocation of IBQ and lease to and from other Purse Seine category participants or Atlantic Tunas Longline permit holders, but would not allow them to fish with Purse Seine gear. Based on current allocation rules, Purse Seine category participants would receive 25 percent of the Purse Seine category quota. Although this option would eliminate the ability of Purse Seine category participants to fish for bluefin, and current Purse Seine category participants would continue to receive annual allocation through the IBQ Program and lease IBQ quota.

Justification: During 2016 through 2018, an average of 27 percent of the total leases (by weight) were from Purse Seine category participants to Atlantic Tunas Longline permit holders. Although limited in scope, these IBQ leases were a meaningful component of the IBQ Program, contributing to a successful leasing market. This option would allow this leasing activity to continue.

Pros: This option would preserve the potential for revenue for Purse Seine category participants through leasing IBQ to Atlantic Tunas Longline permit holders, and continuing opportunity for

Atlantic Tunas Longline permit holders to lease from Purse Seine category participants. Because purse seine gear would be disallowed, it would eliminate the uncertainty which currently exists from one year to the next, of whether the purse seine fishery will fish for bluefin, and how much bluefin they will catch (which determines the Purse Seine category quota level). Therefore, this option would make certain the annual reallocation of 75 percent of the Purse Seine category quota to the Reserve and increase the likelihood of additional quota availability for all bluefin categories (i.e., 75 percent of the Purse seine category quota would be reallocated in some manner).

Cons: This option would result in potential lost fishing opportunities and revenues for Purse Seine category participants, however, this loss of opportunity would not represent a reduction in income to the Purse Seine category participants, because the fishery has been inactive for several years. This option would still result in some bluefin quota being allocated to an inactive fishery, which could otherwise be allocated to the other quota categories for use. Allocation of any bluefin quota to inactive (i.e., not fishing) permit holders in this manner does not not align well with Amendment 7 objectives. There would continue to be an opportunity cost associated with quota allocated to Purse Seine category participants, because only a portion of the Purse Seine quota is leased to longline vessels. Much of the Purse Seine category quota is neither fished nor leased. Since 2015 there have been no landings of bluefin by purse seine vessels, and only one purse seine vessel operated, making only a few sets and accounting for only a small percentage of commercial bluefin landings between 2005 and 2015. During 2016 through 2018, an average of 27 percent of the total leases (by weight) were from Purse Seine category participants to Atlantic Tunas Longline permit holders.
Suboption E3b: Reduce the Purse Seine category quota percentage share of the overall bluefin quota to 25 percent of the currently codified percentage and allow current Purse Seine category participants to lease and/or fish (until the Purse Seine fishery is discontinued at a set future date).

Description: This option would modify the current Purse Seine category quota at §635.27(a)(4) to limit the Purse Seine category quota to 25 percent of the current percentage share of the overall adjusted quota (i.e., reduced from 18.6 percent to 4.7 percent of the bluefin quota). The remaining portion of Purse Seine category quota (i.e., the other 75 percent) would be reallocated to the other bluefin quota categories in some manner (see E2 management options). This option would be a set amount of quota, in contrast to the No Action option, which considers the previous year's catch by purse seine participants in determining the amount of quota available to each Purse Seine category participant.

Justification: In recent years, fishing activity has been limited to one Purse Seine category participant making only a handful of sets. This level of catch is below 25 percent of the current Purse Seine category quota. Limiting the Purse Seine category quota to 25 percent of its current quota would increase the amount of quota that could be distributed to other quota categories. This would restructure the annual allocation to Purse Seine category participants to reflect recent quota use.

Pros: This option would not only allow Purse Seine participants to continue to lease quota allocation to either Purse Seine category participants or to the pelagic longline fishery, but also

would provide Purse Seine category participants the flexibility to fish using purse seine gear. This option would eliminate uncertainty in the bluefin fisheries which currently exists from one year to the next due to the uncertainty of what the purse seine quota will be, which currently depends upon whether they fish or not and how much bluefin they catch. Therefore, this option would make certain that quota previously associated with the Purse Seine category is available in a predictable way to all bluefin tuna categories via annual allocations.

Cons: This option could result in potential lost fishing opportunities and potential revenues for Purse Seine category participants from fishing or leasing, however this loss of opportunity would not represent a reduction in income to the Purse Seine category participants, because the fishery has been inactive for several years. This option would still result in some bluefin quota being allocated to an inactive fishery, which could otherwise be allocated to the other bluefin quota categories for use. There would continue to be an opportunity cost associated with quota allocated to Purse Seine category participants, because only a portion of the purse seine quota is leased to longline vessels. Much of the purse seine quota is neither fished nor leased (see Con under Suboption E3a).

Suboption E3b: Allow permanent sale of Allocations of bluefin quota to Purse Seine category participants until the date the category is discontinued.

Description: This option would modify the current IBQ regulations at § 635.15 and the regulations at 635.27(a)(4) to allow for the permanent sale of allocations of bluefin quota to Purse Seine category participants to both Longline and Purse seine category participants for a specific duration of time (i.e., until the Purse Seine category is discontinued). Other elements of the fishery would remain the same (i.e., ability for Purse Seine category participants to fish and lease IBQ). The amount of allocations of bluefin quota that they could sell would be limited to the equivalent of 25 percent of their quota (i.e., the amount each participant receives through annual reallocation), to take into consideration the current regulations and recent levels of purse seine fishing effort (zero) and allocation to the fishery.

Justification: During 2016, 2017, and 2018, an average of 27 percent of the total leases (by weight) were from Purse seine category participants to longline vessels Although limited in scope, IBQ leases from Purse Seine category participants to Atlantic Tunas Longline permit holders were a meaningful component of the successful IBQ Program, contributing to a successful leasing market. This option would allow the sale of allocations of bluefin quota to Purse Seine category participants in order to provide a way for pelagic longline vessels to increase their IBQ allocations instead of only leasing IBQ, which can only be used by the lessee through the end of a particular year. This option would reduce the need for annual leasing during the interim period before the sunset date. Limiting the total amount of IBQ allocation for sale to the equivalent of 25 percent of the Purse Seine category quota is consistent with the current regulations regarding Purse Seine category allocation, and recent levels of activity. Limiting the amount of IBQ for sale would also preclude possible speculative fishing by Purse Seine category participants.

Pros: This option allows Purse Seine category participants to obtain revenue through the sale of their allocations of bluefin quota to Purse Seine category participants prior to the discontinuation of the fishery (in addition to the ability to fish and lease IBQ). This would provide a way for Longline category vessels to obtain additional IBQ allocation in addition to the temporary leasing of IBQ. This option might reduce uncertainty among Purse Seine and Atlantic Tunas Longline category vessels.

Cons: Because transfer of quota would be limited to the Longline category, directed bluefin fishing categories may perceive that this is unfair. Based on the quota allocations and usage to date under the IBQ Program, pelagic longline vessels may not need this additional source of IBQ. The IBQ Program would be more complex to understand and administer because there would be two potential types of transactions among permitted vessels (leasing or sale), whereas under current regulations there is only one (leasing). Rules about the conditions under which a longline permit holder may purchase allocations of bluefin quota to Purse Seine category participants (e.g., an Atlantic Tunas Longline permit associated with a vessel) would need to be developed. Consideration of a cap on the amount of IBQ owned or used by an entity may be of increased importance if Purse Seine category participants can permanently sell allocations of bluefin quota to Purse Seine category participants. Allowing the Purse Seine category to permanently sell allocations of bluefin quota to Purse Seine category participants may not be justified given the inactive status of the fishery, as well as confusing, given the fact that elimination of the purse seine fishery is also a management option for which NMFS is seeking input. Permanent sale of Purse Seine category quota to owners of pelagic longline vessels would represent an increase in the Longline category quota.

Other Management Measures

Allocation of Bluefin Quota among Quota Categories

Management options discussed below are related to the allocation of the U.S. bluefin quota among quota categories. The annual U.S. bluefin quota currently is allocated by NMFS among seven quota categories.

Management options include maintaining the existing quota allocations as codified in the quota regulations at §635.27(a) and allocation modifications for quota categories and subcategories. Relevant data is presented in this section. Each of the management options for category allocation changes is related to the objectives of this potential action. For several years, some of the category quotas and subquotas have not been reached while others are reached and result in a partial closure of the bluefin fishery while fishing opportunities continue. NMFS has received requests in recent years to modify the quota category allocations to optimize the fishery and reduce the likelihood of fishery closures. The options in this section relate to the options in Section 4 in that if any changes are made to the Purse Seine category quota or to how NMFS reallocates unused Purse Seine category quota (currently to the Reserve category), they may result in more quota being available to the directed categories and the incidental Longline category.

Management Option F1: No action.

Description: This management option would maintain the current category allocations. The codified quota allocations (percentages) were last modified in Amendment 7 and the current regulations set out the formula for distribution of U.S. quota among domestic fishing categories (subquotas). First, 68 mt is subtracted from the annual U.S. baseline bluefin quota and allocated to the Longline category quota. Second, the remaining quota is divided among the categories according to the following percentages: General—47.1 percent; Angling—19.7 percent; Harpoon—3.9 percent; Purse Seine—18.6 percent; Longline—8.1 percent (plus the 68-mt initial allocation); Trap—0.1 percent; and Reserve—2.5 percent. The current base quota of 1,247.86 mt was established in the 2018 final rule for the Atlantic bluefin tuna and northern albacore quotas (83 FR 51391, October 11, 2018).

Justification: The rationale for the current category allocations was described in Amendment 7 and summarized in Section 1 of this issues and options paper.

Pros: The bluefin fishery recently has achieved the objective of harvesting the baseline U.S. bluefin quota. The U.S. catch (landings and dead discards) has been greater than 90 percent of the baseline U.S. quota and approximately 85 percent of the adjusted U.S. quota for each year following implementation of Amendment 7 (i.e., 2015 through 2017).

Cons: Bluefin availability, which is highly variable temporally and spatially, does not always align with the availability of quota for a particular bluefin quota category. For example, in recent years, some of the quota categories reached their quotas and/or subquotas and were closed by NMFS while fishing opportunities remained (i.e., bluefin were available), while other quota categories harvested only a fraction of their quotas and/or subquotas and remained open. Examples include the General category and the Angling category, respectively. Therefore, continuation of the current category allocations may not optimize utilization of the bluefin quota.

Management Option F2: Modify bluefin category allocations (category percentage).

Description: This option would modify the current category allocations described under option F1 above. See section 5.2 for discussion of modifying suballocations. One method of adjusting quota allocations would be to base a new percentage on recent patterns of catch relative to the current quota allocations (mt). For example, a particular category's percentage allocation could be increased if in recent years the category had caught a high proportion of its allocated quota.

Justification: Changing the category allocations could result in catching a higher percentage of the baseline U.S. quota by providing more quota to those quota categories that in recent years have reached their quotas and/or subquotas and less to those that have underperformed (i.e., not caught their quotas). Full use of the U.S. quota may result in increased overall revenue, and reduce the likelihood of potential reallocation of the western Atlantic bluefin Total Allowable Catch at ICCAT. The timing of making such changes may be appropriate if the purse seine fishery is discontinued, and decisions need to be made regarding the quota associated with the purse seine fishery.

Pros: Increasing the relative amount of quota to categories that tend to more fully catch their quota may provide additional opportunities and/or revenue to fishery participants (depending on bluefin availability on the fishing grounds), resulting in increased revenue from the U.S. bluefin tuna fishery overall.

Cons: A change to the current category quota allocations could increase uncertainty in some quota categories. The reduction of a category allocation percentage may be perceived as unfair, particularly if other regulations limit the amount of bluefin they can land. Because of the variability of bluefin distribution over time, a reallocation that is intended to optimize harvest may not achieve that objective if the pattern of bluefin availability changes in the future. If a specific historical time period and associated landings is selected and used to determine a new allocation among quota categories, the specific time period selected will be very influential in determining the percentages for each category. An additional consideration is the current ICCAT restrictions on the amount of catch from particular bluefin size classes (and the fact that different quota categories catch different size classes). ICCAT limits on small size classes of bluefin may resulted in limits on the relative amounts of bluefin allocated to the Angling quota category.

General Category Subquota Periods and/or Suballocations

Management Option G1: No action.

Description: This option would maintain the General category time periods and subquota allocations at their current levels, specified at § 635.27(a)(1). Specifically, the General category quota is divided into five time period subquotas, as shown in Table 7.

NMFS began to manage the General category quota through subquotas in 1995. The General category quota currently is divided into five subquotas for the following time periods: January, June through August, September, October through November, and December, and each of these time periods is allocated a specific percentage of the annual General category quota. Although it is called the "January" subquota, the regulations currently allow landings to continue until the subquota is reached or March 31, whichever comes first. The flexibility to allow landings to continue up until the March date was intended to allow the January base quota to be harvested even under the circumstances when the bluefin show up late (i.e., are not available in January but arrive in February or March). In other words, it was intended to provide flexibility due to the variability of bluefin (spatial and temporal distribution), and not intended to provide fishing opportunity in each month of the first quarter. Figure 2 shows the allocations in percentages for each time period, and Table 7 shows the time period percentage, plus the current baseline subquota.

Table 7. General Category Time Periods, Base Subquota Allocation (%), with Current Baseline Subquota (mt)

Time Period	% of General Category Baseline Quota	Current Baseline Subquota (mt)
January	5.3	29.5
June–August	50	277.9
September	26.5	147.3
October–November	13	72.2
December	5.2	28.9
Total	100	555.7

Justification: The rationale for the current time periods and subquota allocations was described in Amendment 7 and summarized in Section 1 of this issues and options paper.

Pros: The status quo subquotas assigned to the time periods generally reflect the historical catch patterns from the 1980s and 1990s as well as formalization of the winter fishery and extension of the "January" fishery through the end of March (unless the January subquota is reached sooner). Recent annual General category landings have approached or exceeded the base and adjusted General category quotas (i.e., they were 161 and 111 percent of base and adjusted quotas, respectively, for 2016, 149 and 101 percent of base and adjusted quotas for 2017, and 168 and 96 percent of base and adjusted quotas for 2018). As implemented in Amendment 7, NMFS may proactively transfer quota from one or more of the subquotas following the January subquota to the January or other subquotas, through inseason action. In other words, NMFS has the authority to transfer quota from one subquota period to another, earlier in the calendar year. In recent years, NMFS has proactively transferred quota from the December subquota period to the January subquota period in order to maximize the fishing opportunities on an annual basis ('front-loading' the quota).

Cons: The current quota system is perceived by some fishery participants as being unfair. For example, some January fishery participants think that participants in later time periods benefit from unused quota rolling forward and also from substantial transfers from the Reserve category, particularly after the application of allowable underharvest of the U.S. bluefin tuna quota and adjustment to the Reserve category typically in mid-to-late summer. Because of this they believe that the January subquota should be larger. Some October-November period and December period participants have expressed concerns regarding the uncertainty of whether General category quota will remain for the times when commercial-sized bluefin tuna are available in their areas. Some General category participants would prefer to see more opportunities available when market prices are perceived as being generally higher, such as in the fall months (but this varies with market volume). In recent years, some of the subquotas have been reached and the General category has been closed while fishing opportunities remain and while other subquotas are not reached.

Suboption G2a: Modify General category time periods.

Description: This option would modify the current General category time periods as defined at § 635.27(a)(1). For example, the General category quota could be divided into 12 monthly time periods, or the "January" time period could be extended through May 31, or other modification to one or more of the five subquota periods. It is important to note that changes to the General category time periods would also result in changes to the subquota allocations (see G2b).

Justification: Changes to the General category time periods could provide additional or more opportunities and could address perceived inequities in current allocations.

Pros: This option may provide additional opportunities to fishery participants in times and areas in which bluefin tuna may be available but the subquota time period has ended (i.e., between April 1st and May 31st, which is currently closed) or at the end of current multi-month time periods, when bluefin tuna may still be available, but the fishery may be closed under current regulations due to harvest of the subquota (e.g., in November).

Cons: Modification of the time periods may change the nature of the alignment (between the time period and bluefin availability during that time period. If bluefin availability during particular times at particular locations remains similar, but the quota time periods are modified, the relative amount of bluefin available to a time period may change. Such changes may result in reduced potential for some fishermen to harvest bluefin during historically high-catch, multi-month time periods (e.g., June through August). Depending upon the time periods established, modification of the time periods may require NMFS to manage the fishery at an inseason level more intensely (e.g., 12 monthly time periods and subquotas). This could increase uncertainty as the status of the fishery changes from month to month in a given year (e.g., retention limits, short closed periods). Modification of the time periods may introduce new challenges for business planning if the modifications result in 'derby' style fishing or more frequent fishery closures.

Suboption G2b: Modify General category subquota allocations (percentage).

Description: This option would modify the current bluefin tuna category quota allocations outlined at § 635.27(a)(1).

Justification: Changes to the suballocations could provide additional or more equitable opportunities and could address perceived inequities in current allocations.

Pros: This option may provide additional opportunities to fishery participants in areas/times where bluefin tuna are available but quotas are relatively small. In addition, some General category participants would prefer to see additional opportunities available when market prices are perceived to be generally higher (e.g., in fall months).

Cons: Modification of the subquota allocations may change the nature of the alignment (match) between the allocation and bluefin availability during that time period. This option may result in reduced potential for fishermen to harvest bluefin during historically high-catch time periods (e.g., June through August). An increase in the percentage to one time period is associated with decreased percentage to another time period. Shifting allocations to later in the year may increase the impact of reduced fish availability or weather events during a particular time period, on the total annual amount of catch. In other words, as the year proceeds, time runs out to make up for lost time due to bad weather or periods when the bluefin are not available.

Management Option G3: Angling category Trophy subquota allocations.

Suboption G3a: No action.

Description: This option would maintain the current Angling category subquota areas and allocations at § 635.27(a)(1). Under the current regulations, no more than 2.3 percent (currently 5.3 mt) of the annual Angling category bluefin quota (currently 232.4 mt) may be large medium (73 to < 81" curved fork length) or giant (> 81" curved fork length) ("trophy") bluefin. The trophy

subquota is divided equally (i.e., 1.8 mt each) among three geographic areas: North of 39°18′ N lat. (off Great Egg Inlet, NJ); south of 39°18′ N lat., and outside of the Gulf of Mexico; and the Gulf of Mexico.

Justification: The division into three geographic areas is intended to provide fishing opportunity for trophy fish in the Atlantic and Gulf of Mexico, reduce discards, and account for incidentally-caught bluefin. The rationale for the current subquota areas and allocations was described in further detail in Section 1 of this document and in Amendment 7.

Pros: The status quo generally maintains the ability of anglers in the North, South, and Gulf of Mexico areas to land a trophy bluefin tuna, while quota remains available.

Cons: In recent years, the Trophy North subquota has filled quickly, with anglers in the northern portion of the area (e.g., off Cape Cod) unable to retain a trophy-sized bluefin. For example, during 2018, in the months of May through July, the Trophy North subquota was harvested (with landings of 12 individual bluefin), with 2 coming from north of Cape Cod, and 10 from the portion of the Trophy North area south of Cape Cod. These are large fish, and there may be a temptation for recreational anglers to land and unlawfully sell these valuable fish. Anglers fishing further south may also be tempted to sell these large fish, especially under the circumstances when the General category fishery may be closed, and there is no domestic rod and reel caught bluefin on the market. By maintaining the current, relatively small trophy subquota amount, keeping a trophy fish would continue to be a rare event for anglers, and the recreational fishery would continue to be focused on smaller size bluefin.

Suboption G3b: Modify Angling category Trophy areas and allocations.

Description: This option would modify the current Angling category Trophy subquota areas or allocations outlined at § 635.27(a)(1) (i.e., change the coordinates for the areas). For example, concerns about the geographic distribution of fishing opportunity for trophy bluefin in the northern area could be addressed through division of the northern area into two zones. NMFS has received a suggestion to divide the northern area into two zones, north and south of 42° N. lat (off Chatham, MA). Justification: Changes to the areas or suballocations could provide additional or more opportunities for anglers where bluefin tuna are available. Changes to the areas or suballocations may also address perceived inequity.

Pros: Dividing the northern area into two distinct subareas/zones could provide additional opportunities to fishery participants in areas where bluefin tuna are available, particularly if accompanied by an increase in Trophy subquotas (see Management Option F2).

Cons: Dividing the Northern area into two distinct sub-areas/zones could reduce opportunities, particularly for northern area fishery participants that catch trophy bluefin earlier in the season (i.e., off the New York/New Jersey coast within the northern area in late spring as bluefin migrate up the coast), unless accompanied by an increase in Trophy subquotas. Due to the limited amount

of large bluefin allocated to the Angling category as a whole, an increase in the amount of trophy quota allocated to one geographic area results in decreases in quota allocated to another area. Increased opportunity to keep trophy fish could increase incentives to sell them. Another consideration is the perceived inequity that vessels fishing under a Charter/Headboat category permit may retain fish in the smaller size range (less than 73"), but also, on separate trips retain the larger bluefin.

Other Management Options Related to Handgear Fisheries

Management options discussed below are related to potential (non-quota related) changes in regulations affecting the handgear fisheries, including authorized gear types, retention limits, and size limits.

Management Option H1: No action. Maintain current authorized gears.

Description: This management option would maintain the current authorized gears applicable to the Atlantic tunas permit categories (§635.19(b)). For example, the HMS Charter/Headboat category would be authorized to use rod and reel, handline, bandit gear, and green-stick, as well as speargun for authorized recreational harvest of non-bluefin tunas, the General category would be authorized to use harpoon, rod and reel, handline, bandit gear, and green-stick. In 2008, NMFS proposed authorization of harpoon gear for Atlantic tunas fishing by HMS Charter/Headboat category permitted vessels on all trips, but did not finalize it. This decision was based on the relative lack of public support, and the concerns raised by NMFS and the public, which included bycatch, enforcement, safety, and bluefin tuna stock status issues.

Justification: Maintaining the current authorized gears for each permit category would keep the fishery historically consistent and not allow introduction/or elimination of currently authorized gear types to other categories. Given the unknown status of Atlantic bluefin tuna and current management under ICCAT's interim recommendation through 2020, this option would be consistent to not allow additional gears into the fishery.

Pros: The historical harpoon fishery for bluefin (within the Harpoon and General categories) would not experience gear conflicts during the season.

Cons: Fishermen that wish to use harpoon gear cannot do so on a HMS Charter/Headboat vessel and are limited in their choice of permit category to General or Harpoon. Some people are of the opinion that the current regulations are not appropriate, and that harpoon use should be prohibited in the General category.

Management Option H2: Allow the use of harpoon gear on Charter/Headboat category-permitted vessels.

Description: This management option would add harpoon gear as an authorized gear for the HMS Charter/Headboat category vessels. The addition of this gear would only apply to vessels with the ability to carry six passengers or less. Harpoon gear could be used on commercial trips by Charter/Headboat permitted vessels with the commercial sale endorsement. Currently, authorized gears for HMS Charter/Headboat category vessels fishing commercially are: rod and reel, handline, bandit gear, and green-stick.
Justification: This option would allow HMS Charter/Headboat operators increased flexibility and efficiency in commercially harvesting bluefin.

Pros: This option could have positive social and economic impacts, specifically for those vessels that have success in harpooning bluefin tuna that may be available at the water's surface.

Cons: As raised during the 2008 rulemaking on this issue, there may be concerns about potential increases in bycatch mortality due to high-grading or if fish under the commercial size are harpooned and released due to size restrictions. There may also be safety and enforcement concerns due to unfamiliarity with the use of the gear, as well as continued opposition to authorizing new gear types when the overfished status of the bluefin fishery is unknown. Additionally, this option could result in slightly negative social and economic impacts for existing HMS Charter/Headboat operators due to the potential for Atlantic Tunas General or Harpoon category permit holders to change to the Charter/Headboat category, potentially diluting HMS charter business.

Management Option H3: Remove harpoon gear as an authorized gear for the General category.

Description: This management option would eliminate harpoon as gear authorized for use by General category permitted vessels.

Justification: Some General category participants have expressed concern that harpoon activity fills the available General category quota and should be limited to the Harpoon category, which has its own dedicated quota.

Pros: This option would address concerns about perceived harpoon activity contributing to the General category quota and subquotas being used too quickly, particularly the June through August subquota, by participants who have the option to fish on a dedicated Harpoon category quota. Requesters have stated elimination of harpoon gear will provide significantly more fishing opportunities in the fall months.

Cons: This option would represent a change to recent management and reduce the flexibility that harpoon gear users currently have to choose between the Harpoon category (in which only

harpoon gear is authorized) and the General category. The use of harpoon gear has minimal impact on the amount of General category landings overall. Harpoon landings represent a minor percentage of the total General category bluefin landings (annually or as a percentage of the June through August time period). For example, 2017 and 2018, 5 percent and 2 percent of General category annual landings, respectively, were made using harpoon gear. For the General category June through August period, during which harpoon gear most commonly used, harpoon landings represented 10 percent and 5 percent, respectively, of the General category landings during this time period in 2017 and 2018. Elimination of this gear type would not result in a significant increase in fishing opportunities later in the year. This option could also be accompanied by the concept of reallocating some of the quota from the General category to the Harpoon category to mitigate the impact of potential loss of fishing opportunity by vessels fishing with Harpoons, which further complicates this option.

Management Option I1: No action. Maintain Harpoon category bluefin retention limits and season.

Description: This management option would maintain the current Harpoon category daily retention limits at §635.23(d) (i.e., an unlimited number of giant bluefin 81 inches or greater) and an incidental catch of two large medium bluefin (unless NMFS increases the amount, inseason, to a maximum of four)), and also maintain the current season of June 1 through November 15 at §635.27(a)(5).

Justification: This option would be consistent with recent management for retention limits and seasons. Keeping the incidental limit at a maximum of four would also support maintaining fishing opportunities over a longer portion of the Harpoon category season. Maintaining a June 1 to November 15 season may mitigate concerns about potential impacts to the species by not adding any additional fishing effort during months previously unfished (April and May), when bluefin of varying size may be off the mid-Atlantic coast.

Pros: This option would continue to provide opportunities within the Harpoon category quota without exceeding it. This option is consistent with the intent of the Harpoon category fishery being a fishery that targets giant bluefin with a small incidental allowance for large mediums. Commercial handgear start dates would be consistent across the General and Harpoon categories under this option.

Cons: Harpoon category participants have noted that bluefin often are available to the fishing grounds in May and that the June 1 start date hampers effort and restricts their ability to harvest the Harpoon category quota. Harpooners also have indicated that bluefin become less available to harpoon gear once rod and reel activity picks up in July and would benefit from less gear conflict during the time bluefin are typically harpoonable. The potential impacts of fishing during April and May are unknown since no directed commercial fishing activity has occurred during this time period.

Management Option I2: Consider changes to Harpoon category retention limits and season.

Description: This management option would increase the maximum potential large medium bluefin incidental limit (e.g., to five to match the maximum potential General category limit) and lengthen the season for the Harpoon category (e.g., a new start date prior to the current start date of June 1, such as May 1). The current maximum limit for large medium fish is four, and there is no retention limit for giants (> 81").

Justification: Increasing the Harpoon category retention limit for large medium bluefin and lengthening the season would increase fishing opportunities to harvest the Harpoon category quota.

Pros: This option responds to requests from Harpoon category participants for increased equability in retention limits for large medium size bluefin between other commercial categories. This option may reduce gear conflicts with the rod and reel commercial fishery that would begin on June 1. Harpoon gear users that decide annually between obtaining a vessel permit in the Harpoon or General category may more consistently choose the Harpoon category, which could satisfy some General category participants who perceive that harpoon activity fills the available General category quota more quickly and would prefer that harpooners be required to obtain Harpoon category permits and fish under the separate Harpoon category quota. Harpoon category participants may see improved market prices due to a potentially low volume of Atlantic U.S. bluefin on the market during May, but the extent of the change is unknown.

Cons: This option could result in the Harpoon category quota being used very quickly due to more participants choosing to fish in the Harpoon category. The harpoon category, which targets giant bluefin greater than 81 inches does not have a daily limit for giants, but is subject to a set daily retention limit from one to four fish, for large medium bluefin. Starting the season earlier may create inconsistency, and perceptions of unfairness or differential treatment within the commercial handgear fishery. Increasing the amount of fish harvested prior to the June 1 start date could affect the value of fish for General category participants that begin in June, but the extent of the change is unknown. A modification of the season could extend the geographic range of the harpoon fishery, if the fish are located further south during May than they are in June. Changes in the fishery patterns may be perceived as negative, due to the associated uncertainty.

Modification of the Open-Access Permit Requirements regarding Changes in Permit Category

Management Option J1: No action.

Description: This option would maintain the current regulations that prohibit vessel owners from changing the permit category after 45 days from permit issuance. Current regulations applicable to

the permit requirements for vessel owners issued an Atlantic Tunas permit in the General, Harpoon, or Trap category, or issued an Atlantic HMS permit in the Angling or HMS Charter/Headboat category, prohibit vessel owners from changing permit categories after 45 calendar days from the date of issuance of the permit (§635.4(j)(3)). They may change categories within 45 days provided the vessel has not landed bluefin. The reason for this restriction was to prevent a vessel from fishing for and landing bluefin under one permit type (and counting toward the relevant quota category), and then obtaining another type of permit and landing bluefin under the second permit type (and counting toward the second quota category), and therefore 'double-dipping' (i.e., taking advantage of two pools of bluefin quota or two different retention limits). Justification: Some vessel owners may want to fish in multiple categories to maximize fishing opportunities. The current regulation was implemented to address this concern, while allowing some flexibility for vessel owners to change permit categories.

Pros: This restriction prevents the possibility of landing bluefin tuna under multiple quota categories in a year, unless authorized.

Cons: This regulation is overly restrictive, makes errors made by permit applicants choosing the wrong permit category difficult to address, and may not be needed due to the low likelihood of vessels trying to abuse the system.

Management Option J2: Allow vessels with an Atlantic Tunas or HMS permit to change permit categories within a fishing year, provided the permitted vessel has not landed any bluefin.

Description: Vessel owners may change the permit type after issuance of the permit provided the vessel has not landed bluefin since permit issuance. This option would extend the ability to change permit categories from 45 days to the full fishing year.

Justification: This option would give vessel owners more opportunity to change their permit type. The majority of vessel owners that request NMFS to waive this requirement did not fish, and are not attempting to game the regulations and/or quota system. They generally request a permit category change because they, or someone obtaining the permit on the owner's behalf, made a mistake on the permit application, and/or did not fully understand the requirements associated with a particular permit type.

Pros: Allowing vessel owners to change permit categories provides flexibility in the permitting rules is necessary because permit applicants make mistakes, and are sometimes confused by the complex regulations. Because vessels are not allowed to both land bluefin and change categories, the restriction would still preclude vessels from landing bluefin under two different quota categories or sets of retention limits to gain some type of an advantage over vessels fishing under a single permit type.

Cons: NMFS will still incur some administrative burden associated with verifying that vessels have not landed bluefin, and vessel owners may still be confused, and need to request changes in permit categories. The opportunity to game the system and fish in more than one category may be increased, especially if individuals do not follow reporting requirements.

Other Management Options

Other management options and concepts suggested by the public, which would fall within the scope of objectives described for Amendment 13, may be developed for consideration.

Public Scoping Meetings and Next Steps

The publication of this issues and options paper and associated Notice of Intent initiates the public process during which NMFS will consider a range of issues and options as well as possible alternatives for the regulations on Atlantic bluefin tuna management.

NMFS encourages participation, by all persons affected or otherwise interested in the management of bluefin tuna or other HMS species, in the process to determine the scope and significance of issues to be analyzed in a draft EIS and regulatory amendment. All such persons are encouraged to submit written comments to www.regulations.gov or the HMS Management Division by mail (see the Notice of Intent for contact information), or comment at one of the scoping meetings or public webinar.

During the scoping process, NMFS will hold scoping meetings in the geographic areas that may be affected by these measures, including locations on the Atlantic and Gulf of Mexico coasts. NMFS will consult with the Atlantic HMS Advisory Panel at a meeting held in Silver Spring, Maryland (May 21-23, 2019). NMFS will also host a public webinar to ensure that individuals that cannot attend an in-person meeting still have an opportunity to submit comments. After scoping has been completed and public comment gathered and analyzed, NMFS will determine if it is necessary to proceed with preparation of a draft EIS and proposed rule, which would include additional opportunities for public comment. The scope of the draft EIS would consist of the range of actions, alternatives, and impacts to be considered. Alternatives may include, but are not limited to, the following: not amending the current regulations (i.e., taking no action); developing a regulatory amendment that contains management measures such as those described in the issues and options paper; or other reasonable courses of action. This scoping process also will identify, and eliminate from further detailed analysis, issues that may not meet the purpose and need of the action.

The process of developing an FMP amendment is expected to take approximately two years. In addition to future HMS Advisory Panel input, public comment and future analyses, there are other relevant events anticipated that may impact the development of this regulatory amendment (e.g., finalization of the Three-Year Review, rulemaking regarding pelagic longline gear restricted areas. Until a potential draft EIS and proposed rule are finalized or until other regulations are put into place, the current regulations remain in effect.

Appendix

Bluefin Management

Bluefin Quota Management

Under the 2006 Consolidated HMS FMP, bluefin is a quota managed species. The annual U.S. bluefin quota (recommended by ICCAT) is allocated among seven quota categories. The amount of quota allocated to each category is expressed as a percentage of the U.S. quota, as first established in the 1999 FMP based on landings from 1983-1991 and continued unchanged in the 2006 Consolidated HMS FMP. Total catch generally consists of landings and dead discards. The amount of quota allocated to each category was specified in 1999, based upon historical landings, and did not account for dead discards. Landings were the only portion of catch that were factored into the 1999 FMP percentage allocation analysis because, at that time, dead discards were accounted for under a separate quota allowance (68 metric tons (mt)) per ICCAT recommendations. However, in 2006, the separate dead discard allowance was discontinued per ICCAT recommendation and dead discards were required to be accounted for within each country's annual quota allocations.

Subsequently, annual implementation of the existing domestic allocation quota system became more difficult/disjointed due to a change in the way dead discards were calculated (which increased the estimate of bluefin dead discards); a larger percentage of the adjusted quota being landed within the directed fisheries; and lastly, changes in ICCAT requirements regarding accounting for dead discards and allowable carryforward of unused quota. In 2010, ICCAT implemented Recommendation 10-03, which reiterated that ICCAT parties "shall monitor and report on all sources of bluefin fishing mortality, including dead discards, and shall minimize dead discards to the extent practicable."

The Longline category was allocated 8.1 percent of the total U.S. quota for landings, but catches (landings plus dead discards) were significantly over that subquota, resulting in a need for NMFS to rely on underharvest and annual quota adjustments from the Reserve category to cover pelagic longline operations while ensuring that the United States remained within its annual U.S. bluefin quota. The amount of unharvested quota from one year that may be carried forward and utilized in the subsequent year is limited by ICCAT. The percentage of quota that can be carried forward has been reduced over time from 100 percent of the previous year's underharvest, to 50 percent of the previous year's underharvest, to the current 10 percent level. Reliable estimates of dead discards were available only for the pelagic longline fishery, which has a 100 percent logbook reporting requirement and a minimum of 8 percent observer coverage due to measures needed to reduce bycatch of sea turtles and protect ESA-listed and other species. Dead discards were observed in the purse seine fishery for the first time in 2013 by observers placed to meet ICCAT requirements consistent with the ATCA.

Prior to Amendment 7, the combined effect of the domestic quota allocation system and ICCAT requirements resulted in an annual allocation/accounting challenge: using the limited amount of available quota, how does NMFS optimize fishing opportunity for all categories and account for anticipated dead discards in a way that meets fishery management obligations. NMFS has some limited flexibility in carrying out quota management annually. For example, under § 635.27(a)(9), NMFS has the authority to transfer quota among fishing categories or subcategories, after considering regulatory determination criteria provided under § 635.27(a)(8). NMFS also has some flexibility in how and when it accounts for dead discards. Despite this annual accounting and allocation challenge, the bluefin quota system was able to fully account for both dead discards and landings, and not exceed the U.S. bluefin quota, because a portion of the allocated quota remained unharvested. However, if the quota had been fully harvested, accounting would have been more difficult.

In response to the challenges described above, and to achieve other objectives including reduction of dead discards, and reporting of dead discards by directed categories, NMFS implemented Amendment 7 to the FMP (79 FR 71510; December 2, 2014), which made modifications to the quota system and implemented the IBQ Program (described more fully below in the description of the pelagic longline fishery). Amendment 7 included a net increase in the Longline category allocation of 62.5 mt based on the 68 mt dead discard allowance that existed when the category allocation percentages were first established, to more accurately account for that category's incidental bluefin catch while also considering the historic basis of the category allocation percentages. Table 1 contains the allocations associated with each bluefin quota category, and the specific contributions of each category toward the 68 mt allocated to the Longline category, after the quota has been divided among all the categories (according to their relative percentages).

Permit Categories

A vessel permit is required to fish for, retain, possess, or sell Atlantic bluefin in Federal and/or most state waters of the Atlantic, Gulf of Mexico, or Caribbean Sea (directed fishing for bluefin tuna in the Gulf of Mexico is prohibited). A number of HMS permit categories allow conditional retention of bluefin tuna (the conditions being gear restrictions, size and retention limits, and other regulations). The permit categories include both limited access and open access permits.

Limited Access: The 1999 HMS FMP (which was combined with the Billfish FMP in 2006 to become the 2006 Consolidated Atlantic HMS FMP) established six different limited access permit (LAP) types: 1) directed swordfish, 2) incidental swordfish, 3) swordfish handgear, 4) directed shark, 5) incidental shark, and 6) Atlantic tunas longline. In addition, there is the purse seine permit, part of a grandfathered limited entry program that was established in 1982. To reduce bycatch in the pelagic longline fishery, these permits were designed so that the swordfish directed and incidental permits are valid only if the permit holder also holds both a tunas longline and a shark permit. Similarly, the tunas longline permit is valid only if the permit holder also holds both a swordfish (directed or incidental, not handgear) and a shark permit. This allows limited retention of species that might otherwise have been discarded.

Open Access: There are three directed open access permit categories that allow retention and sale of bluefin: Atlantic Tunas General category, Atlantic Tunas Harpoon category, and Atlantic HMS Charter/Headboat category permit (with a commercial endorsement). Commercial handgears, including handline, harpoon, rod and reel, green-stick, and bandit gear are used to fish for bluefin on private vessels, charter vessels, and headboat vessels. There are two open access permit categories that allow recreational fishing for bluefin: Atlantic HMS Charter/Headboat category permit and HMS Angling category. Both of these categories allow the use of rod and reel and handline to fish for bluefin, while the HMS Charter/Headboat category also allows for the use of bandit gear and green-stick gear for bluefin.

Pelagic Longline Fishery and the Individual Bluefin Quota Program

The pelagic longline fishery for Atlantic HMS primarily targets swordfish, yellowfin tuna, and bigeye tuna in various areas and seasons. Secondary target species include dolphin, skipjack, and albacore tuna. Although this gear can be modified (e.g., depth of set, hook type, hook size, bait) to target swordfish or tunas, it is generally a multi-species fishery, also catching bluefin. Pelagic longline vessel operators are opportunistic, switching gear style and making subtle changes to target the best available economic opportunity on each individual trip. Prior to the implementation of Amendment 7 in 2015 (as described in more detail below), the pelagic longline fishery was prohibited from retaining more than three bluefin per trip, and large numbers of bluefin tuna were required to be discarded dead. A more complete description of the pelagic longline fishery is contained in the 2018 HMS SAFE Report.

Amendment 7 was developed to reduce and account for bluefin dead discards in all categories; optimize fishing opportunities in all directed categories within the U.S. quota; enhance reporting and monitoring; and adjust other management measures. Four components of Amendment 7 affect the U.S. pelagic longline fishery: (1) Two new or modified pelagic longline Gear Restricted Areas (GRAs); (2) an IBQ Program; (3) mandatory electronic monitoring (EM) of pelagic longline gear at haulback; and (4) catch reporting of each pelagic longline set using vessel monitoring systems (VMS).

An important aspect of Amendment 7 is the IBQ Program, which requires vessels fishing with pelagic longline gear to account for all bluefin either retained or discarded dead using quota available to the individual vessel, either through quota shares or leased quota through the IBQ system. This program is intended to reduce bluefin dead discards by capping the amount of catch (landings and dead discards) by individual vessels; provide strong incentives to reduce interactions with bluefin and to increase flexibility for vessels to continue to operate profitably; accommodate different fishing practices within the pelagic longline fleet; and create new potential for revenue (from a market for leasable IBQ allocation). Eligible Atlantic Tunas Longline permit holders have been assigned an IBQ share, which is a percentage of the overall Longline quota ("quota share"), and are eligible to receive annual associated quota allocations. Share recipients as well as other permit holders that did not qualify for a quota share may lease additional IBQ from other participants to account for landings and dead discards of bluefin to resolve quota debt that may accumulate when incidental catch occurs without quota available to the vessel.

The IBQ Program is considered a Limited access Privilege Program (LAPP), and under the Magnuson-Stevens Act, formal and detailed reviews of all LAPPs established after January 12, 2007 must be conducted every 5 years. Amendment 7 specified that the IBQ Program would be reviewed after the first 3 years of operation, in order to balance the need for the program to have time to operate and mature, with providing a timely review. The IBQ Program was implemented on January 1, 2015, and NMFS is in the process of conducting a formal review of the IBQ Program (Draft Three-Year Review released in May 2019).

The contents of the review are based on guidelines developed by NOAA Fisheries (NMFS Procedural Instruction 01-121-01, April 13, 2017). The review must include evaluation of whether or not the catch share program objectives were met, as well as an evaluation of the various components of the program. As set forth in (NMFSPD 01-119; July 27, 2016), in addition to the need to determine whether the LAPP allocations met their design objectives, allocations should be periodically evaluated in order to ensure their relevance to current conditions.

As described fully in the Draft Three-Year Review of the IBQ Program, one of the preliminary conclusions was that the objectives of the IBQ Program were only partially met, and changes to elements of the program such as allocations should be considered to more fully achieve the objectives, to ensure continuing compliance with the Magnuson-Stevens Act requirements for catch share programs. For example, the Draft Three-Year Review included a preliminary conclusion that the allocation design principle stated in Amendment 7 (that the quota be used by active vessels to account for bluefin), was only partially achieved, given the number of IBQ share recipients that were inactive. The IBQ Program was successful at reducing dead discards and implementing accountability for bluefin catch by individual vessels. Amendment 7 prescribed a full review of the IBQ after three years, and subsequent consideration of changes to the IBQ Program, that was not conditioned upon any particular findings, but intended to provide an opportunity to modify and improve the IBQ Program.

Amendment 7 also implemented mandatory EM of pelagic longline gear at haulback to increase rigor in monitoring pelagic longline catch and individual accountability for bluefin interactions. To effect this requirement, NMFS initially paid for the installation and equipment costs for EM systems on the vessels that received quota shares and for other vessels to the extent funding was available. Amendment 7 also requires vessels fishing with pelagic longline gear to report catch and set information via VMS.

Purse Seine Fishery

A detailed history of the fishery, and relevant regulations is provided here as context for the options that consider eliminating this fishery.

Vessels using purse seine nets have participated in the U.S. Atlantic tuna fishery since the 1950s, although a number of purse seine vessels did target and land bluefin off the coast of Gloucester, MA as early as the 1930s. In 1958, continued commercial purse seining effort for Atlantic tunas began

with a single vessel in Cape Cod Bay and expanded rapidly into the region between Cape Hatteras and Cape Cod during the early 1960s. The purse seine fishery between Cape Hatteras and Cape Cod was directed mainly at small and medium bluefin, yellowfin tuna, and at skipjack tuna, primarily for the canning industry. North of Cape Cod, purse seining was directed at giant bluefin. High catches of juvenile bluefin were sustained throughout the 1960s and into the early 1970s. These high catch rates by U.S. purse seine vessels were believed to have played a role in the decline in abundance during subsequent years. Since the 1970s, purse seine vessels focused their effort on giant bluefin, versus other tunas, due to the emerging international market that developed for giant bluefin in the late 1970s. These fresh caught bluefin were primarily flown directly to Japan for processing into sushi or sashimi.

In 1982, a limited entry system with non-transferable quotas for purse seining was established, effectively excluding any new entrants to this category and defining the five vessel owners as historical participants in the fishery. Limited entry was initiated due to the harvesting capacity of this gear type and its ability to exceed U.S. quotas in very short periods of time, and was possible given the small pool of ownership in this sector of the fishery. The intent of the system was to ensure that only those persons who have depended on this fishery for all or part of their livelihood were allowed access. Equal baseline quotas of bluefin were assigned to individual vessel owners by regulation. This enabled owners to replace older vessels they owned with newer ones. Thus, NMFS limited the purse seine fishery participation to only those historical purse seine vessels or their replacements.

By the late 1980s, high ex-vessel prices and the increased importance of the Japanese market had increased effort on all size classes of bluefin. In 1992, NMFS responded by banning the sale of school, large school, and small medium bluefin (27 inches to less than 73 inches curved fork length). NMFS also, in 1992, established baseline quotas for each bluefin quota category, including the Purse Seine category. Quotas were originally based on historical share of landings from 1983 through 1991. The Purse Seine category fishery received 18.6 percent of the U.S. bluefin quota. In 1996, the quotas were made transferable among the five vessels.

In the 1980s and early 1990s, purse seine landings of yellowfin tuna were often over several hundred metric tons. Over 4,000 mt whole weight (ww) of yellowfin were recorded landed in 1985. Starting around 1999, via informal agreements with other sectors of the tuna industry, the purse seine fleet opted not to direct any effort on HMS other than bluefin; therefore, catch and landing numbers post-1999 include only bluefin.

Economic and social aspects of the fisheries are described in annual SAFE reports. Through 2005 purse seine landings made up approximately 20 percent of the total annual U.S. landings of bluefin (about 25 percent of total commercial landings). Between 2005 and 2018, only one purse seine vessel operated sporadically, made only a few sets between 2013-2015, and accounted for only a small percentage of total annual bluefin landings (six, five, and four percent, respectively). 2015 was the last year during which there were landings of bluefin by purse seine vessels (Figure 1). Vessels participating in the Atlantic tunas purse seine fishery may only target the larger size class

bluefin tuna; more specifically, the giant size class (≥ 81 inches), and are granted a tolerance limit for large medium size class bluefin (73 to < 81 inches) (i.e., large medium catch may not exceed 15 percent by weight of the total amount of giant bluefin tuna landed during a season).

During 2012 and 2013, purse seine vessel operators reported an increase in schools of mixed sized fish, which resulted in increased amount of dead discards resulting from the retention limit. During the 2014 and 2015 fishing years, the owner and operator of the one active purse seine vessel requested an exemption from the annual incidental purse seine retention limit on the harvest of large medium bluefin. The applicant proposed that NMFS, through issuance of the exempted fishing permit (EFP), assess the possibility of reducing regulatory discards related to this tolerance limit. Waiving the limit on the amount of large medium bluefin would also increase the likelihood of harvesting the vessel's individual purse seine vessel bluefin quota and the category subquota overall. The EFP granted an exemption to the 15 percent tolerance for a single vessel. Under § 635.32, and consistent with § 600.745, NMFS may authorize activities otherwise prohibited by the regulations for "the investigation of bycatch, economic discards and regulatory discards" and the acquisition of information and data. The EFP was only valid if a NMFS-approved observer was onboard the vessel. If an observer was not available, the vessel could have fished under current regulations (i.e., without any exemptions). Also, under this EFP, all bluefin dead at haulback were required to be brought on board and/or made available to the observer for enumeration and sampling, when feasible. Table 8 summarizes observer coverage and bluefin catch for 2013 through 2015, allowing comparison of results with and without the EFP. With the EFP, average purse seine landings increased by an average of 7 mt (24 percent), dead discards decreased an average of 9 mt (67 percent), and total catch decreased by an average of 2 mt (5 percent).

Table 8. Bluefin Tuna Purse Seine Fishery Comparison, 2013, 2014, and 2015

	2013	2014 (w/EFP)	2015 (w/EFP)	Average Change (w/EFP vs. 2013)
Observer coverage *	60%	100%	100%	
Landings	28.8	37.6	34.0	+7.0 (+24%)
Large medium (73 to <81")	1.85	9.57	11.5	+8.7 (+470%)
Giant (81"+)	26.99	28.07	22.5	+1.7 (+6%)
Dead discards	13.7	4.2	4.9	-9.2 (-67%)
Total BFT catch	42.5	41.8	38.9	-2.2 (-5%)

All weights are in mt, ww.
*Min. 5 percent required by ICCAT, as measured in number of sets or trips.
Source: NEFSC observer program, bluefin dealer database.

In 2016, 2017, and 2018, NMFS did not open (i.e., announce a start date for) the Atlantic tunas purse seine fishery because there were no active vessels permitted to fish for bluefin with purse seine gear and therefore there was no catch in these years. Although NMFS received an EFP application for purse seine fishing in 2016 (similar to those submitted for 2014 and 2015), NMFS did not grant an EFP as there were no authorized vessels permitted in the fishery.

Under the current regulations, in effect since the implementation of Amendment 7, the Purse Seine category fishery is allocated 18.6 percent of the available quota after 68 mt is subtracted from the baseline U.S. BFT quota and allocated to the Longline category. The current baseline Purse Seine quota is 219.5 mt. Amendment 7 also implemented annual reallocation of Purse Seine category quota to the Reserve category based on Purse Seine category participants' previous year catch. The purpose of this measure was to increase utilization of the U.S. quota, which could be underutilized if purse seiners did not fish. Under this measure, 25 percent of the Purse Seine category bluefin quota is available to the five historical fishery participants. Based on a formula, quota may be reallocated from the Purse Seine category to the Reserve category annually. The reallocation formula was designed to allocate a minimum level of quota to permitted fishery participants, as well as enable quota to increase over successive years to avoid being too restrictive and provide an opportunity for those permit holders to reenter the fishery.

Under the regulations regarding annual reallocation of Purse Seine category quota, NMFS first divides the baseline Purse Seine category quota equally by the number of Purse Seine category participants. For 2018, this equal division resulted in 43.9 mt (i.e., = 219.5/5). A percentage of that amount (100 percent, 75 percent, 50 percent, or 25 percent) is then made available to each participant based on their purse seine catch in the previous year. For 2018, each of the five participants received 11 mt of quota (25 percent of 43.9 mt). These quotas are transferable among the five Purse Seine category participants or, as authorized under Amendment 7, limited access Longline category-permitted vessels through the IBQ Program. The portions of the baseline Purse Seine quota not allocated to Purse Seine category participants are reallocated to the Reserve category and may be made available for use by other fishing categories.

Purse Seine category vessels also participate in leasing IBQ. Table 9 summarizes relative Purse Seine activity since 2010, including landings and IBQ leasing.

Table 9. Relative Purse Seine Activity Including Landings and IBQ Leasing, 2003-2018

Year	Amount of Purse Seine Leasing* of IBQ as a Percentage of Total Leased IBQ (including longline leases)	Purse Seine Landings of Bluefin (mt) and Percent (%) of Total Commercial Bluefin Landings
2003	na	265.4 (29%)
2004	na	31.8 (6%)
2005	na	178.3 (35%)
2006	na	3.6 (1%)
2007	na	27.9 (12%)
2008	na	0
2009	na	11.4 (2%)
2010	na	0
2011	na	0
2012	na	1.7 (<1%)
2013	na	28.8 (8%)
2014	na	37.6 (6%)
2015	16%	38.9 (5%)
2016	28%	0
2017	25%	0
2018	28%	0

As discussed above, there has been minimal fishing activity in this fishery over the past 14+ years. Since 2003, only one purse seine vessel has actively fished for bluefin and those few trips occurred between 2013 and 2015. There were no active vessels permitted to fish for bluefin with purse seine gear in 2016 through 2018 and therefore there was no catch in these years. There has been some debate regarding the transferability of these grandfathered limited access permits. This discussion has stemmed from the sale of vessels and other assets in 2016 that were once associated with a historical purse seine fishery participant. NMFS has maintained that Purse Seine category permits are non-transferable and that an owner of a vessel with an Atlantic Tunas permit in the Purse Seine category may transfer the permit to another purse seine vessel that he or she owns. In either case,

the owner must submit a written request for transfer to NMFS, to an address designated by NMFS, and attach an application for the new vessel and the existing permit. In the spring of 2017, NMFS received a vessel application for a Purse Seine category permit in the new owners name, which the agency then responded with a denial letter and some additional correspondence with those new vessel owners.

General category quota management

This section provides background and context for the options regarding management of the General category fishery, focusing on how the bluefin quota is divided among time periods. In September 2017, NMFS presented a background paper for consideration by the HMS Advisory Panel entitled, "Management of the Atlantic Bluefin Tuna General Category 'January' Fishery." To access this paper, see the link on Day 2 tab of the 1:30 to 2:30 agenda item called: "Ongoing Issues: Bluefin Tuna General Category "January" Fishery". That background paper summarized the regulations and management history of the General category quota and presented potential management actions and issues to consider. As the Advisory Panel was divided on how to modify General category management, NMFS has not since taken action that would change how the baseline General category quota is allocated. Summarized information is provided in this document as well as information updated since September 2017.

Table 10 summarizes the evolution of how the General category quota was allocated (by percentage) to the time period subquotas and the duration of those time periods, from 1995 to present.

Table 10. Evolution of General Category Time Periods and Subquotas (percentages), 1995 to Present

Year	Jan	Feb	Mar	Apr	Ma	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1995						20%		40%	30%	10%		
1996						25%		35%	30%	10%		
1997–1998						60%			30%	10%		
1999						60%			30%	10% (through May of following year)		
2000–2002						60%			30%	10%		
2003–2005						60%			30%	10% (through Jan of following year)		
2006–2011	5.3%					50%			26.5%	13%		5.2%
2012–present	5.3%					50%			26.5%	13%		5.2%

From the year 1999 through 2006, the fishing year was June through May, but reverted back to a calendar year as of 2007.

NMFS changed the fishing year to a June through May period in the 1999 FMP final rule to give both NMFS and fishery participants adequate time to develop and consider conservation and management measures that would implement ICCAT recommendations (made at ICCAT meetings that are held in November of each year) effectively. The General category subquota allocations remained as they had been, but with the final period extended as follows: June through August: 60 percent; September: 30 percent; and October through May: 10 percent In a 2000 final rule, NMFS clarified that December 31 was the end date for the General category season. In 2007 NMFS reverted management of the fishery to a calendar year basis to establish consistent management cycles for all HMS. Therefore, there was an abbreviated fishing year or "bridge period" from June 1, 2007 through December 31, 2007. As of 2008, the fishing year coincided with the calendar year, and the January time period and associated fishing activities now occur at the beginning rather than the end of the General category season.

During and prior to the development of the 1999 FMP, the majority of General category fishing activity took place in the summer and fall off the New England and New York coasts. The General category quota was available to all commercial handgear tuna fishermen from the opening of the fishing year on June 1 through the end of the season on December 31, as quota allowed. Due to high participation and limited quota, NMFS used effort controls such as lower retention limits, restricted fishing days, and time period subquotas (Table 11) to slow down the catch rate and distribute landings both geographically and over time. Despite the implementation of effort controls in the General category, the quota and subquotas were regularly caught and the General category often closed in late summer to early fall while bluefin were still off northern New England states. During the seasonal General category closure, a southern recreational bluefin fishery on large mediums and giants emerged off the coast of North Carolina during February and March. In later years, fish began to arrive in the region during the late fall/early winter, and interest in a commercial fishery developed.

During the development of the 1999 FMP, the emergence of a General category bluefin fishery in the mid/southern Atlantic region was extensively discussed by the HMS Advisory Panel and the public (NMFS, 1999). The HMS Advisory Panel did not agree on how the 1999 FMP should address the scope of a southern area late season General category bluefin fishery. NMFS changed the fishing year to a wrap-around format (June through May) in the 1999 FMP final rule to give both NMFS and fishery participants adequate time to develop and consider conservation and management measures that would implement ICCAT recommendations (made at ICCAT meetings that are held in November of each year) effectively. The General category subquota allocations remained as they had been, but with the final period extended through May (Table XX). In a 2000 final rule, NMFS clarified that December 31 was the end date for the General category season and final subquota period.

In the early 2000s, NMFS performed a number of inseason quota transfers of bluefin, consistent with the transfer criteria established in the 1999 FMP, which allowed the General category bluefin fishery to extend into the winter months (i.e., late November into December). In 2002, NMFS received a Petition for Rulemaking from the North Carolina Division of Marine Fisheries to formalize this winter fishery and extend fishing opportunities for the General category into January. In December 2003, NMFS extended the General category end date from December 31 to January 31 to address some of the concerns raised in the Petition for Rulemaking, as well as to increase fishing opportunities and optimum yield for the fishery overall.

Via the 2006 Consolidated HMS FMP, NMFS modified the General category time period subquotas to allow for a formalized winter fishery. These subquotas remain effective and are shown in Figure 2. The December and January time periods are currently allocated 5.2 percent and 5.3 percent of the General category base quota, respectively. NMFS also reverted management of the fishery to a calendar year basis, versus the wrap-around model, to establish consistent management cycles for all HMS. Thus, as of 2008, the January time period and associated fishing activities now occur at the beginning rather than the end of the General category season.

2009 Advance Notice of Proposed Rulemaking (ANPR) and 2011 Regulatory Amendment

In the mid-2000s, in response to low catches of bluefin and swordfish, NMFS published an Advance Notice of Proposed Rulemaking (ANPR), requesting specific comment on potential regulatory changes that would increase fishing opportunities in those respective (74 FR 26174, June 1, 2009). Following consideration of the wide range of comments received on the ANPR, both for and against relaxing regulations, NMFS published a proposed rule in 2009, to increase fishing opportunities for bluefin within the existing U.S. quota, (74 FR 57128, November 4, 2009).

In May 2010, the Center for Biological Diversity (CBD) petitioned NMFS to list bluefin as threatened or endangered under the Endangered Species Act (ESA). NMFS delayed issuing a final rule pending a new ICCAT bluefin stock assessment and subsequent ICCAT recommendation on bluefin conservation and management in the fall of 2010, as well as the decision on the CBD petition. In May 2011, NMFS determined that listing bluefin as threatened or endangered under the ESA was not warranted, but listed bluefin as a species of concern.

NMFS issued a final rule on the General and Harpoon category fishing opportunities on November 30, 2011 (76 FR 74003; NMFS, 2011). In the final action, NMFS determined that the General category winter fishery were to remain open from January 1 until the subquota is reached or March 31, whichever comes first (thereby allowing the possibility of fishing past January 31, to harvest the available January subquota).

In addition to the ESA petition, CBD challenged the November 2011 final action in district court, alleging that it violated the Magnuson-Stevens Act, National Environmental Policy Act, and Administrative Procedure Act. The Defendants' (i.e., NMFS') motion for summary judgment was granted in that case on March 28, 2013, and the case was dismissed.

Amendment 7 to the 2006 Consolidated HMS FMP (and the General Category Fishery)

Relevant to the management of the General category fishery, NMFS considered three alternatives regarding modifying the subquota allocations in draft Amendment 7: (a) No action (allocations as shown in the table above), (b) establishing 12 equal monthly subquotas, and (c) providing additional flexibility for General category quota adjustment (preferred). NMFS published the Amendment 7 Final Environmental Impact Statement in August 2014. During the review period on that document, the North Carolina Division of Marine Fisheries (NCDMF) reiterated support of the flexibility concept but suggested that the January fishery to remain open until May 31 or until the January time period subquota is landed, as bluefin could be available to the General category off the North Carolina in the months of April and May. The South Atlantic Fishery Management Council made a similar comment. In the Amendment 7 final rule, NMFS finalized the preferred alternative as proposed (i.e., NMFS could proactively transfer quota from one subquota period to another, earlier in the calendar year). For example, NMFS could transfer quota allocated for December of a particular year, to January of that year, to further fishing opportunities early in the calendar year. Because, relative to the other two alternatives NMFS considered, the preferred alternative would result in improved and fuller use of the General category quota overall and could result in beneficial economic impacts to early season General category participants. Since that time, participants in the winter fishery have continued to express interest in NMFS providing additional quota for the January subquota time period. The idea of providing more quota to the January winter fishery, in conjunction with the concept of lengthening the January subquota time period associated with the January subquota is similar to , in its essence, a reallocation of quota.

Additional Background on General Category Subquotas

The General category season issue was raised again by some HMS Advisory Panel members at the Fall 2015 through Fall 2016 meetings, with discussion for and against a year-round fishery (divided or not into subperiods), as well as for and against allowing the January fishery to continue until the available quota is met. Figure 6 below shows the amount of landings by quota subperiod, and the percentage of annual landings that each subquota period comprised. See Table 11 for a summary of General category daily retention limits, landings, subquota use, and inseason actions, by time period for 2015 through 2019 to date.

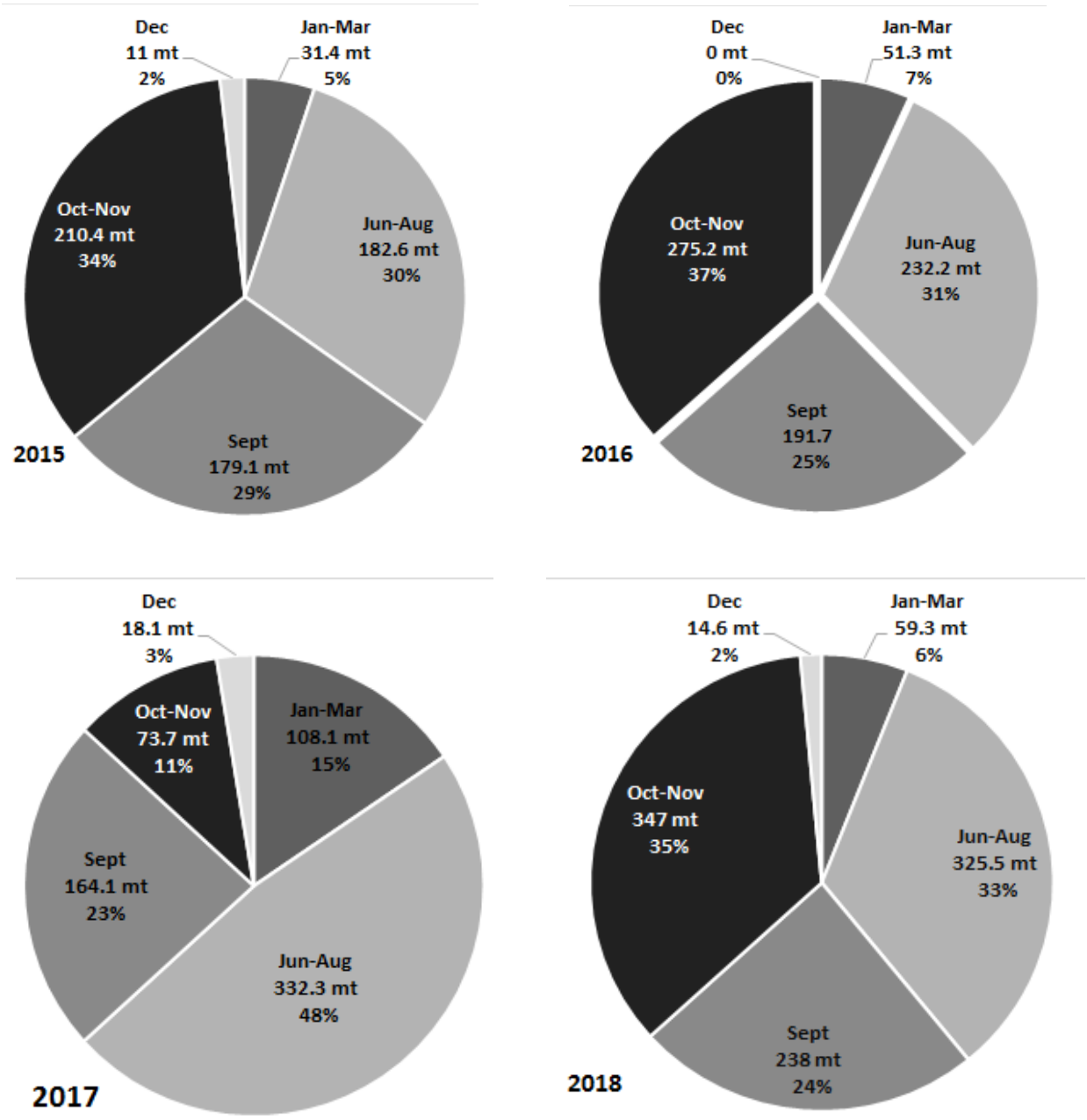

Figure 6. Landings (mt and percent of General category quota) during Each General Category Time Period from 2015 to 2018

In a December 12, 2016, letter to NMFS commenting on management of the 2016 General category season (in which NMFS needed to close the General category on November 4, 2016, after the adjusted General category quota was reached), the NCDMF requested that NMFS manage the General category in the future through conservative retention limits during those periods of abundant landings to prevent negative impacts on those fishing in following subquotas or months

within a subquota. The General category quota was reached as a result of a combination of factors, including wide-scale abundance of bluefin, conducive weather for fishing, large amounts of fishing effort, and landing large numbers of fish. NCDMF stated that, due to the January and December quotas being at the beginning and end of the fishing year, respectively, under-harvest and transfers are often unavailable to these subquotas.

NMFS took three inseason actions regarding the January 2017 subquota, as detailed in Table 11, resulting in an adjusted quota of 81 mt. NMFS closed the January 2017 General category fishery on March 29, 2017, and landings were 108.1 mt.

At the May 2017 HMS Advisory Panel meeting, there was even further discussion surrounding the issue of potentially modifying the General category January fishery regulations. Those in support clarified that their request is for flexibility to use the January quota fully vs. a request for a subquota allocation increase. However, once again there were requests made from winter fishery participants and their elected officials to provide more quota to keep the fishery open. Thus raising concerns regarding about a de facto suballocation change, and that political pressure associated with these sort of inseason actions (both for and against) was growing. In response to these concerns, some Advisory Panel members commented on the "fairness" and equity of inseason transfers in general. In season retention limits for 2015-2019 are given in Table 11. Lastly, some Advisory Panel members cautioned against using terminology such as "traditional" participants when arguing for or against issues affecting quota allocation, stating that the fishery is a U.S. resource, managed by time versus geographical area, and that some vessels travel great distances from their principal fishing areas to participate at various times of year.

Table 11. 2015–2019 Retention Limits, Landings, and Quota Use by General Category Subquota

	Daily Retention Limit (number of fish and date detail)	Landings (mt)	Subquota (mt) and Use (%)	Notes
2015				
"January" (i.e., Jan. 1–March 31)	3	31.4	Base: 21.4 (147%) Adjusted: 42.4 (74%)	Transferred full Dec. 2015 subquota to Jan. 2015 effective Jan. 1
June–August	4	173.6	Base: 201.5 (86%)	
September	4	158.9	Base: 106.8 (149%)	

	Daily Retention Limit (number of fish and date detail)	Landings (mt)	Subquota (mt) and Use (%)	Notes
October–November	4 Oct. 1–Nov. 27 3 Nov. 28–30	239.7	Base: 52.4 (457%) See Total for adjustment*	Transferred 65 mt from Reserve and 35 mt from Harpoon effective Oct. 30; transferred 80 mt from Reserve effective Nov. 25
December	3	10.9	Base: 21 Adjusted: 0	
TOTAL		614.8**	Base: 466.7 (132%) Adjusted: 646.7 (95%)	
2016				
January	3	51.5	Base: 24.7 (209%) Adjusted: 49 (105%)	Transferred full Dec. 2016 subquota to Jan. 2016 effective Jan. 1
June–August	5	226	Base: 233.3 (97%)	
September	5	185.8	Base: 123.7 (150%)	
October–November	5 Oct. 1–8 4 Oct. 9–16 2 Oct. 17–Nov. 4 CLOSED Nov. 5–30	287.5 (97.2 at 5 BFT; 78.2 at 4 BFT; 112.1 at 2 BFT)	Base: 60.7 (474%) See Total for adjustment*	Transferred 125 mt from Reserve effective Oct. 6; transferred 67 mt from Reserve and 18 mt from Harpoon effective Oct.14

	Daily Retention Limit (number of fish and date detail)	Landings (mt)	Subquota (mt) and Use (%)	Notes
December	CLOSED	0	Base: 24.3 (0%) Adjusted: 0	
TOTAL		750.5**	Base: 466.7 (161%) Adjusted: 676.7 (111%)	
2017				
January	3 Jan. 1–March 5 1 March 6–29 CLOSED March 30–31	108.1 (69.1 at 3 BFT; 39 at 1 BFT)	Base: 24.7 (436%) Adjusted: 81 (133%)	Transferred 16.3 of Dec. 2017 subquota to Jan. 2017 effective Jan. 1; transferred 40 mt from Reserve effective March 2
June–August	4 June 1–Aug. 4 2 Aug. 5–16 CLOSED Aug. 17–31	331.7 (243.6 at 4 BFT; 88.1 at 2 BFT)	Base: 233.3 (139%)	
September	1 Sep. 1–17 CLOSED Sep. 18–30	164.1	Base 123.7 (133%) See Total for adjustment*	156.4 mt from the Reserve category to cover previous overharvest. *

	Daily Retention Limit (number of fish and date detail)	Landings (mt)	Subquota (mt) and Use (%)	Notes
October–November	1 Oct. 1–5 CLOSED Oct. 6–Nov. 30	73.6	Base 73.6 (121%)	25.6 mt from the Harpoon category*
December	Dec. 1–6 CLOSED Dec. 7–31	18.1	Base 24.3 (74%) Adjusted 8 (226%)	
TOTAL		695.5	Base: 466.7 (149%) Adjusted to date: 688.7 (101%)	June through November time period subquotas were not adjusted; NMFS covered overharvest through transfers
2018				
January	1 Jan. 1–March 2 CLOSED March 3–31	59.3	Base: 29.5 (201%) Adjusted: 49 (121%) All 2018 subquotas reflect ICCAT-recommended increase.	Transferred 14.3 of Dec. 2018 subquota to Jan. 2018 effective Jan. 1; transferred 10 from Reserve effective March 2
June–August	3 June 1–Aug. 22 1 Aug. 23 -31	328.9 (253.7 at 3 BFT, 75.2 at 1 BFT)	Base: 277.9 (118%)	

	Daily Retention Limit (number of fish and date detail)	Landings (mt)	Subquota (mt) and Use (%)	Notes
September	1 Sep. 1–23 CLOSED Sep. 24–30	238.7	Base 147.3 (162%) Adjusted 207.3 (115%)	Transferred 60 from Reserve
October–November	1 Oct. 1–5 CLOSED Oct. 6–14 1 Oct. 15–16 CLOSED Oct. 17–30 1 Oct. 31–Nov. 2 CLOSED Nov. 3–11 1 Nov. 12–16. CLOSED Nov. 17–30	144.2	Base 72.2 (200%) Adjusted 127.2 (113%)	Transferred 55 (40 from Harpoon, and 15 from Reserve)
December	1 Dec. 1–31	14.3	Base 28.9 (49%) Adjusted 50 (29%)	Transferred 139.1 (129.2 from Reserve, and 9.9 from Harpoon)*
TOTAL		785.4	Base: 466.7 (168%) Adjusted to date: 819.9 (96%)	
2019				
January	1 Jan. 1–Feb. 28 CLOSED March 1–31	108.8	Base: 29.5 (369%) Adjusted: 100 (109)	Transferred 19.5 of Dec. 2019 subquota to Jan. 2019 effective Jan. 1; transferred 26 mt from Reserve effective February 8; transferred 25 mt from Reserve effective February 25

NMFS took three inseason actions regarding the January 2018 subquota, as detailed in Table 11, resulting in an adjusted quota of 49 mt. NMFS closed the January 2018 General category fishery on March 3, 2018, and landings were 59.3 mt. NMFS also took three inseason actions regarding the January 2019 subquota, resulting in an adjusted quota of 100 mt. NMFS closed the January 2019 General category fishery on February 28, 2019, and landings were 108.8 mt.