



Mid-Atlantic Fishery Management Council

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Richard B. Robins, Jr., Chairman | Lee G. Anderson, Vice Chairman
Christopher M. Moore, Ph.D., Executive Director

MEMORANDUM

Date: 6/1/2016
To: Council
From: Jason Didden
Subject: Squid Amendment Update

For review and discussion at the June Council meeting, please find the following documents in this tab:

- Draft Action Plan
- May 19, 2016 FMAT meeting summary
- Squid Amendment – Permit Requalification Examples

DRAFT Squid Amendment Action Plan (as of 5/31/16)

Council: Mid-Atlantic

Additional Expertise Sought:

Fishery Management Action Team (FMAT)		
Agency	Role	Person
MAFMC	FMAT Chair	Jason Didden
NMFS GARFO	Sustainable Fisheries – GARFO liaison	Carly Bari
NMFS GA RFO	Fisheries Statistics	Jay Hermsen
NMFS GARFO	Permitting	Don Paskowski
NMFS NEFSC	Stock Assessment/Technical	Lisa Hendrickson
NMFS NEFSC	Socioeconomics	John Walden
NMFS NEFSC	Anthropologist	Julia Olson

Title of Action: Squid Amendment – Mackerel, Squid, and Butterfish (MSB) Fishery Management Plan (FMP).

Objectives of Action/Purpose and Need:

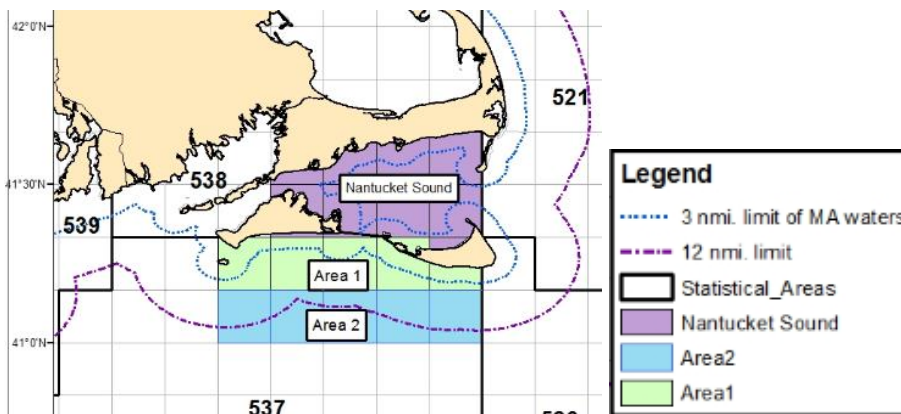
- A. Consider reducing the number of vessels in the directed longfin squid / *Illex* fisheries. The Council is considering this action because there is considerable latent effort in both fisheries - a relatively small portion of vessels with limited access (“moratorium”) squid permits account for the majority of landings in most years, and the Council is concerned that activation of latent permits in the squid fisheries could lead to excessive fishing effort (shortening seasons), and increased catch of non-target species.
- B. Consider provisions for new permits for Maine/northern states. The Council is considering this action because of reports of increased longfin squid abundance off Maine, and the State of Maine requested consideration of provisions for additional access by fishermen in northern states.
- C. Re-evaluate the longfin squid trimester allocations. The Council is considering this action because some constituents have requested that more longfin squid be available during the summer trimester (Trimester 2), while other constituents have concerns that increased summer trimester effort may be negatively impacting spawning success.

- D. Consider a longfin squid buffer zone (i.e. time-area closure) in the area south of Martha's Vineyard/Nantucket. The Council is considering this action because scoping comments indicated public concern that longfin squid fishing effort concentrated in this area may be negatively impacting other fishing in Nantucket Sound, due to localized depletion of prey and/or bycatch of recreationally-targeted species.

Fisheries that Apply: Longfin and *Illex* Squid, Butterfish indirectly (longfin/butterfish joint moratorium permit).

Types of Measures to be considered:

- *A – Squid permits* – Consider options based on vessel landings in relatively recent years and possible use of 2013 control date.
- *B – Northern states permits* – Providing new permits for vessels in only a few states may violate the Magnuson Act's provisions to not discriminate between residents of different States. However, it may be possible to create a lottery for temporary (3-year?) permits that could only be used to land squid in Maine and/or New Hampshire (anyone could apply and be included in the lottery). The FMAT is investigating this issue. Currently vessels can apply for an Exempted Fishing Permit (EFP) if they want to explore new aspects of a fishery.
- *C – Squid Trimesters* – The FMAT is conducting an analysis to explore if there is a correlation between higher/lower catch/effort in the summer trimester and lower/higher catches in the following offshore fishery, and vice-versa. Depending on the results of that analysis, consider modifications to trimester allocations/rollover provisions. The FMAT will also conduct analysis of bycatch and protected resource impacts by trimester.
- *D – Buffer Zone* – Consider prohibiting vessels from possessing more than **X pounds** longfin squid while in an area of Federal waters immediately south of Martha's Vineyard and Nantucket for all or some part of Trimester 2 (summer). The FMAT is analyzing effort trends in the three areas colored purple, green, and blue, as well as trends in several species' catch and abundance in/around Nantucket Sound. Possible Federal waters closure areas could align with the FMAT analyses – 3 and 12 nautical mile lines are provided for reference.



Type of NEPA Analysis Expected: Document expected to be EA.

Acronym	NEPA Analysis	Requirements
EA	Environmental Assessment	NEPA applies, no scoping required, public hearings required under MSA

Applicable Laws/Issues:

Magnuson-Stevens Act	Yes
Administrative Procedures Act	Yes
Regulatory Flexibility Act	Yes
Paperwork Reduction Act	Possibly; depends on data collection needs
Coastal Zone Management Act	Possibly; depends upon effects of the action on the resources of coastal states in the management unit
Endangered Species Act	Possibly; level of consultation, if necessary, depends upon the actions taken
Marine Mammal Protection Act	Possibly; level of consultation, if necessary, depends upon the actions taken
E.O. 12866 (Regulatory Planning and Review)	Yes
E.O. 12630 (Takings)	Possibly; legal review will confirm
E.O. 13132 (Federalism)	Possibly; legal review will confirm
Essential Fish Habitat	Possibly; level of consultation, if necessary, depends upon the actions taken
Information Quality Act	Yes

Other Issues: At this time, no additional Amendment development issues have been identified.

Timing Issues: No unusual timing issues expected.

Timeline for Development/Review/Implementation:

2015-2017 Development Track	
Action	Timeline, based on current Council meeting schedule
Scoping	April 2015
First FMAT meetings, consideration of relevant data sources	Early 2016
Council reviews action plan	June 2016
FMAT continues analyses	June-August 2016
AP and then Committee meet to provide input on options for all alternatives	Late August 2016
Additional development of alternatives & analysis	fall 2016
MAFMC Meeting to adopt public hearing document and identify any preliminary preferred alternatives	December 2016
Public hearings	January/February 2017
MAFMC Meeting to: review comments; select final preferred measures; approve/adopt amendment)	April 2017
Final Rule Effective	January 1, 2018



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MEMORANDUM

Date: 6/1/2016
To: Council
From: Jason Didden
Subject: FMAT Meeting Summary – Squid Amendment

The Fishery Management Action Team (FMAT) met on 5/19/2016. FMAT members in attendance included Jason Didden, Lisa Hendrickson, Carly Bari, Don Paskowski, John Walden, and Julia Olson. Other attendees included Jeff Kaelin, Greg DiDomenico, Katie Almeida, and Douglas Christel.

The FMAT understands that there are currently 4 objectives of the Amendment (A-D below), and each were addressed during the meeting.

- A. Consider reducing the number of vessels in the directed longfin squid and *Illex* fisheries - The Council is concerned that activation of latent permits in the squid fisheries could lead to excessive fishing effort (possibly shortening seasons into derbies), and increased catch of non-target species and/or protected resources.

The FMAT endorsed the staff suggestion to bring a preliminary range of alternatives to an Advisory Panel (AP) meeting to get input on permit re-qualification criteria (non-re-qualifiers would presumably be eligible to get an open access incidental permit). Based on FMAT member schedules and analyses to be completed, that meeting would likely take place in late August. Staff reviewed an initial set of possible criteria (5 or 10 years, 25,000 or 50,000 pounds in best year) that would be brought to the AP meeting.

Staff will include: the distributions of qualifying years so that any natural break points can be identified; what portions of total/federal landings the current holders of moratorium permits have been landing in recent years versus incidental and non-permit holders; and recent landings by vessels that would not re-qualify.

The FMAT also discussed if there was a way to illustrate the ability of any resulting re-qualified limited access fleet to catch the current squid quotas. Technical measures of capacity do not appear to be a useful analytical tool in this case given there is a hard quota and the Council's goal is to protect vessels that have been dependent on recent squid catches rather than

optimizing the use of capital resources in this fishery. Council staff suggested that identifying the sum of all the vessels' best-year catches over some time period might serve as an approximate upper bound (but not technical maximum) on what any group of re-qualifying vessels might be likely to catch in a given year. Any such analysis would have to acknowledge that annual trends in the abundances of various species and changes in fishery management measures impact year-to-year fishery performance. Another consideration is that such an analysis would not be informative about the possible catches of latent vessels that might seek to enter or expand participation in the future. Staff will draft an initial iteration of this kind of analysis for additional FMAT feedback before bringing requalification options to the AP for input.

- B. Consider provisions for new permits for Maine/northern states. The Council is considering this action because of reports of increased longfin squid abundance off Maine, and the State of Maine requested consideration of provisions for additional access by fishermen in northern states.

The FMAT discussed several aspects of this issue. Granting new permits for only some states may violate Magnuson-Stevens Act provisions not to discriminate between residents of different states. However, it may be possible to create a lottery for temporary (e.g., 3-year) permits that could only be used to land squid in Maine and/or New Hampshire (anyone could apply and be included in the lottery). C. Bari will discuss with NOAA GC. Also, currently vessels can apply for an Exempted Fishing Permit (EFP) if they want to explore new aspects of a fishery, so a vessel might obtain an incidental permit and then request exemption from the trip limit as part of an Exempted Fishing Permit. The FMAT will explore longfin squid abundance trends in the Gulf of Maine to determine whether consistent production is feasible in the region. A research-set-aside could also be used to grant some vessels additional access to demonstrate the feasibility of an expanded fishery in northern areas. In general, the FMAT was concerned that granting new permits seemed to run contrary to the general goals of the amendment to reduce the number of permits in the squid fisheries. Adding additional northern squid fishing effort could also raise additional bycatch issues (which may support using an EFP to explore this issue). Squid are allowed to be fished within the existing small-mesh exemption areas in the GOM with certain season and gear restrictions.

- C. Re-evaluate the longfin squid trimester allocations. The Council is considering this action because some constituents have requested that more longfin squid be available during the summer trimester (Trimester 2), while other constituents have concerns that increased summer trimester effort may be negatively impacting spawning success.

L. Hendrickson will update previous analyses examining connectivity between the inshore and offshore fisheries. Specifically, the analysis will examine standardized CPUE in the summer inshore fishery relative to performance in the following offshore fishery and vice-versa. L. Hendrickson noted that it would be useful to collect vessel processing type (e.g. freezer, ice and/or RSW), on annual permit applications for effort standardization in CPUE analyses. L.

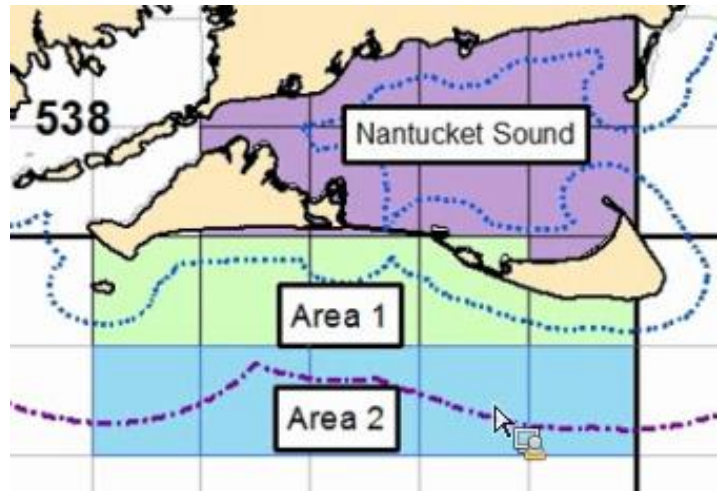
Hendrickson is also working on improving the documentation of squid spawning bed locations. The FMAT will also examine bycatch and protected resource impact differences by Trimester.

- D. Consider a longfin squid buffer zone (i.e. time-area closure) in the area south of Martha's Vineyard/Nantucket. The Council is considering this action because scoping comments indicated public concern that longfin squid fishing effort concentrated in this area may be negatively impacting the fishing in Nantucket Sound, due to localized depletion of prey and/or bycatch of recreationally-targeted species.

The FMAT discussed several initial analyses. A detailed written narrative will be produced for later consideration, but a preliminary summary is provided below as an update:

1. Have relevant recreational landings declined in recent years? The FMAT is examining MRIP harvest trends during 2004-2015 at ports from New Bedford, MA to Chatham, MA, where fishing likely occurred in Nantucket Sound, for striped bass, bluefish, black sea bass, and/or summer flounder. These species are some of the major predators of longfin squid, river herring, and butterfish. While the analysis involved a partitioning of the data that MRIP is not intended for (MRIP landings and effort data are available by state), landings per unit effort for these species were not indicative of an extreme drop in recent years (e.g. trends since either 2004 or 2010) given the variability generally seen in the data. Precision estimates are not available but would likely be low for such a small area.
2. Has the relative abundance of striped bass, bluefish, black sea bass, and/or summer flounder in Nantucket Sound declined in recent years based on the Massachusetts (MA) bottom trawl survey for strata that include Nantucket Sound? Striped bass and bluefish occurrences were too low/inconsistent to be useful. Recent years (since 2012) have shown a marked increase in black sea bass in the relevant spring and fall MA strata due to a large 2011 year class. Recent years (since 2010) have shown a decline for summer flounder in the spring and variability in the fall, though fall of 2015 was the highest value in the time series for summer flounder in the relevant strata.
3. Has the relative abundance of longfin squid, alewife, blueback herring, and/or butterfish in Nantucket Sound declined in recent years? Longfin squid and butterfish indices exhibited high variability and recent values appear to be within the typical variation of the time series. Alewife showed high variation as well, though recent years (since 2010) showed a decline in the spring survey and an increase in the fall survey in the relevant strata. Blueback herring indices were too low/inconsistent to be useful.

In the future, the FMAT will evaluate longfin squid catch/effort trends in Areas 1, 2, and Nantucket Sound as illustrated (right). If feasible, correlations will be examined between effort trends and the availability (for the MA survey) of longfin squid, butterfish, and alewife in Nantucket Sound. The FMAT will likely not be able to deduce any cause and effect associations given the myriad of factors that impact local fish abundances. This will make any quantitative evaluation of trade-offs between possible lost commercial squid fishing opportunities versus possible benefits to fishing and/or the ecosystem in Nantucket Sound impossible, though the FMAT will attempt to generally describe the relative importance of these areas to longfin squid fishing and recreational fishing.



Squid Amendment – Permit Requalification Examples

Staff proposes that permit requalification options be considered at an Advisory Panel (AP) meeting and that the AP provide recommendations for the Committee/Council. Staff can examine the outcomes of permit requalification options in real time at the meeting to help the AP evaluate what kind of fleet would result from different requalification criteria.

The structure of any qualifying criteria will impact the number of qualifiers. Based on staff's understanding that the Council's goal is to account for the dependency on squid of recently active vessels, staff proposes to take four initial qualifying criteria to the AP for both squids: requalify vessels that had at least 25,000 or 50,000 pounds in their best year over either 2006-2015 (10 years) or 2011-2015 (5 years). Given the quotas have not been taken in recent years and there has not been a dramatic increase in active vessels since 2013, staff has not used the 2013 control dates, but would seek input from the AP on this issue as well.

Approximate and preliminary re-qualifiers for each squid fishery under the above example criteria are provided below. These would be provided to the AP as background/illustrations for discussion at an in-person AP meeting.

Longfin

There were about 422 longfin/butterfish moratorium permits in the NMFS permit files in at least one year 2011-2015.

-If a 5-year/25,000 pound threshold was used the number of re-qualifying permits would be about 154.

-If a 5-year/50,000 pound threshold was used the number of re-qualifying permits would be about 133.

-If a 10-year/25,000 pound threshold was used the number of re-qualifying permits would be about 181.

-If a 10-year/50,000 pound threshold was used the number of re-qualifying permits would be about 151.

Illex

There were about 90 *Illex* moratorium permits in the NMFS permit files in at least one year 2011-2015.

-If a 5-year/25,000 (or 50,000) pound threshold was used the number of re-qualifying permits would be about 27.

-If a 10-year/25,000 (or 50,000) pound threshold was used the number of re-qualifying permits would be about 31.