

Discussion Paper

Revising Allowances for Placing Small Catcher/Processors in the Partial Observer Category - Proposed Amendment to the North Pacific Groundfish and Halibut Observer Program

Prepared by the National Marine Fisheries Service
Alaska Region
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Contents

1	Introduction	1
2	Background.....	2
3	Draft Purpose and Need Statement and Statement of Objectives	4
4	Summary of recommended alternatives for analysis	5
5	History of This Action	6
5.1	Chronology	6
5.2	Summary of comments from industry	8
6	Description of Alternatives	10
6.1	Alternative 1, No Action	10
6.1.1	Current allowances	10
6.1.2	Table with characteristics of current allowances for partial coverage for catcher/processors.....	11
6.1.3	How many catcher/processors qualify for partial observer coverage under current regulations?.....	11
6.1.4	Summary of No Action/Status Quo Alternative	13
6.2	Alternative 2, Revising allowances for placing small catcher/processors in partial coverage	13
6.2.1	Basic criterion for allowance - production in the prior year.....	13
6.2.2	Additional factors	15
6.3	Alternatives not advanced for further analysis	17
7	FMP Amendment.....	18
	APPENDIX A – Current regulation with allowances for small catcher/processors	20
	APPENDIX B – Preliminary data for production thresholds to analyze for placement of catcher/processors into partial coverage	21

1 Introduction

This paper discusses a possible amendment to the North Pacific Groundfish and Halibut Observer Program (Observer Program). The amendment would revise the criteria used by the National Marine Fisheries Service (NMFS) to place small catcher/processors in the partial observer coverage category. After evaluating five possible changes to the Observer Program in February 2014, the North Pacific Fishery Management Council (Council) identified changing the allowance for small catcher/processors to choose partial coverage as its highest priority.

The purpose of this paper is to give the Council the information it needs to adopt a Purpose and Need Statement and Objectives for this action and a preliminary set of alternatives for further analysis. Section 3 contains a draft Purpose and Need Statement and Objectives for this action. Section 4 contains the proposed alternatives for analysis.

If the Council recommends further analysis of this issue, the next step is preparation of an initial draft Regulatory Impact Review/Initial Regulatory Flexibility Analysis (Analysis). NMFS's preliminary

conclusion is that this action would qualify for a Categorical Exclusion from further review under the National Environmental Protection Act (NEPA) because this would be an amendment to a previously analyzed and approved action and this action would have no effect on the human environment beyond what was analyzed in prior actions.¹

2 Background

The Observer Program provides the regulatory framework for NMFS-certified observers (observers) to obtain information necessary for the conservation and management of the Bering Sea and Aleutian Islands (BSAI) and Gulf of Alaska (GOA) groundfish and halibut fisheries. Observers collect biological samples and fishery-dependent information on total catch and interactions with protected species. Managers use data collected by observers to monitor quotas, manage groundfish and prohibited species catch, and document and reduce fishery interactions with protected resources. Scientists use observer-collected data for stock assessments and marine ecosystem research.

In 2013, the Secretary of Commerce adopted the recommendation of the Council and NMFS to restructure the Observer Program. Under the Restructured Observer Program, NMFS places all vessels and processors in the groundfish and halibut fisheries off Alaska into one of two categories: (1) the full coverage category, where vessels and processors obtain observers by contracting directly with observer providers, and (2) the partial coverage category, where NMFS has the flexibility to deploy observers when and where they are needed based on an annual deployment plan developed in consultation with the Council. Funds for deploying observers in the partial coverage category are provided through a system of fees based on the ex-vessel value of retained groundfish and halibut in fisheries and landings that are not in the full coverage category.

The Restructured Observer Program was implemented through Amendment 86 to the Fishery Management Plan (FMP) for Groundfish of the Bering Sea and Aleutian Islands Management Area (BSAI) and Amendment 76 to the FMP for Groundfish of the Gulf of Alaska (GOA)(Amendments 86/76).² The Council's Problem Statement for Amendments 86/76 stated that the structure of the Observer Program had led to problems with data quality and reliability. The Council also identified cost inequity as a problem with the Observer Program: "The current program is also one in which many smaller vessels face observer costs that are disproportionately high relative to their gross earnings."³

Under the Restructured Observer Program, the Council and NMFS made decisions about whether to place vessels or processors in full coverage or partial coverage based on considerations of both data quality and cost. Under the Restructured Observer Program, the general rule is that catcher/processors are placed in

¹ This is the basis for a Categorical Exclusion in Section 5.05b and Section 6.03a.3(b)(1) of NOAA Administrative Order 216-6 (May 20, 1999), "Environmental Review Procedures for Implementing the National Environmental Policy Act." The prior analyses are the Analysis of the Restructured Observer Program in Amendments 86/76 (March 2011) and the Analysis of the Alaska Groundfish Harvest Specifications in January 2007 and the annual supplemental information reports on the Groundfish Harvest Specifications from 2008 to 2013. The Analysis of Amendments 86/76 is at https://alaskafisheries.noaa.gov/analyses/observer/amd86_amd76_eairirifa0311.pdf. The Analysis of Groundfish Harvest Specifications and the annual reports are at <https://alaskafisheries.noaa.gov/analyses/specs/eis/default.htm>.

² The proposed rule for Amendments 86/76 was published in the Federal Register on April 18, 2012 (77 FR 23326). The final rule was published in the Federal Register on November 21, 2012 (77 FR 70062). Regulations implementing Amendments 86/76 are at 50 CFR part 679. General regulations governing observers also are in 50 CFR part 600.

³ Council's BSAI Amendment 86/GOA Amendment 76 Problem Statement in Analysis of Restructured Observer Program at page xii (March 2011).

the full coverage category to obtain independent estimates of catch, at sea discards, and prohibited species catch (PSC) for these vessels and to enhance the accuracy of NMFS's catch accounting system.⁴

Before the Restructured Observer Program, most catcher/processors and all motherships were required to have one or two observers onboard at all times due to their participation in catch share programs.⁵ But for catcher/processors with less than full observer coverage, NMFS used a product recovery rate to convert a vessel's reports of retained processed weight to a whole-fish (round weight) weight equivalent and used data from observed vessels to estimate at sea discards, including PSC. The Council concluded that this process may have introduced error into NMFS's catch accounting.⁶ Under the Restructured Observer with at least one observer on each catcher/processor, NMFS can estimate a vessel's total retained catch and discards based on data collected independently by observers on the vessel.

The Restructured Observer Program, however, contained three, limited exceptions to full coverage for a catcher/processor: two allowances for partial coverage were introduced in the Council final motion on Amendments 86/76 and one allowance for partial coverage was introduced in the proposed rule.

Based on testimony before the Council and in recognition of the relatively high cost of full coverage for smaller catcher/processors and the limited amount of catch and bycatch by these vessels, the Council final motion introduced two limited exceptions to the requirement for full coverage on catcher/processors:

[1] a hybrid allowance for partial coverage: available to a vessel that is under 60 feet and acted as a catcher and a catcher/processor in any year between 2003 – 2009;

[2] an under 5,000 pounds allowance: available to a vessel that processed less than 5,000 pounds on an average daily basis in its last year of production between 2003 – 2009.⁷

These two allowances for partial coverage are based on a vessel's activity from 2003 through 2009.

During development of the proposed rule, NMFS added, with the concurrence of the Council and the Observer Advisory Committee (OAC), a one metric ton allowance for placing a catcher/processor in partial coverage. NMFS added this for consistency with the License Limitation Program (LLP), which allows a catcher vessel that is 60 feet or less to process one metric ton of groundfish a day without an LLP license with a catcher/processor endorsement.⁸ Under the Restructured Observer Program, a catcher/processor may be placed in partial coverage if it processed less than one metric ton of groundfish on every day of the prior year.⁹ This allowance is not limited to a vessel's processing activity between 2003 to 2009.¹⁰

Beginning with comments on the proposed rule, industry participants have stated that the Restructured Observer Program essentially does not allow catcher/processors that began, or wish to begin, processing

⁴ Proposed Rule, 77 FR 23326, 23328 – 23330 (April 18, 2012).

⁵ Before the restructured Observer Program, for example, catcher/processors operating pursuant to the American Fisheries Act (AFA), Amendment 80, and the Rockfish Program were required to have 100% observer coverage. 50 CFR 679.50(c)(5), (6), and (7)(2011).

⁶ Proposed Rule, 77 FR 23326, 23329 (April 18, 2012).

⁷ Council Final Motion on Observer Restructuring, BSAI Amendment 86/GOA Amendment 76 (Oct. 8, 2010) at http://www.npfmc.org/wp-content/PDFdocuments/conservation_issues/Observer/ObserverMotion1010.pdf

⁸ 50 CFR 679.4(k)(3)(ii)(D). program

⁹ 50 CFR 679.51(a)(2)(iv)(B), reprinted in Appendix A. This allowance is not limited to vessels of a certain length.

¹⁰ Section 6.1.3 of this paper explains that NMFS has placed three small catcher/processors in partial coverage under the hybrid allowance and the under 5,000 pounds allowance. NMFS has not placed any catcher/processors in partial coverage under the one metric ton allowance.

after 2009 to be placed in partial coverage even though they are similarly situated to the vessels that were placed in partial coverage based on their processing activities before 2009. These industry participants have stated that it is impossible to sustain a processing operation by processing no more than one metric ton on every single day during the year. In public comment on the final rule, these industry participants asked for a provision in the final rule allowing NMFS to place small catcher/processors in partial coverage that began processing after 2009. In response to these comments, NMFS stated that neither the Council nor NMFS had analyzed the situation of small catcher/processors after 2009. NMFS explained that if these industry participants wished to be considered for placement in partial coverage, they should go through the Council process to seek recognition of their circumstances.¹¹

3 Draft Purpose and Need Statement and Statement of Objectives

As a basis for focusing the analysis of alternatives, the following draft Purpose and Need Statement and Objectives is provided for the Council's consideration and input:

Under the Restructured Observer Program, all catcher/processors are in the full coverage category unless they meet the requirements for an allowance to be placed in partial coverage. The placement of catcher/processors in full coverage enables NMFS obtain independent estimates of catch, at sea discards, and prohibited species catch (PSC) for catcher/processor vessels. In recognition of the relatively high cost of full coverage for smaller catcher/processors and the limited amount of catch and bycatch by these vessels, the Council recommended two limited allowances for placing a catcher/processor in partial coverage. Both of these allowances were based on vessel activity between 2003 and 2009.

The Council concurred with NMFS's recommendation to add a third allowance for partial coverage for consistency with the License Limitation Program (LLP). Under the LLP, a catcher vessel of less than 60 feet may process less than one metric ton of groundfish a day without an LLP license with a catcher/processor designation. Under the Restructured Observer Program, a catcher/processor may be placed in partial coverage if the vessel did not process more than one metric ton every day of the prior year. The one metric ton allowance is not based on a vessel's activity between 2003 to 2009. NMFS has not placed any catcher/processor in partial coverage under this provision. The production limit of one metric ton or less every day in a year does not allow a catcher/processor to operate a sustained viable processing operation.

Since publication of the proposed rule for Amendment 86/76 in April 2012, owners and operators of some catcher/processors have requested that the Council and NMFS revise these allowances to include vessels that began processing after 2009. The Council requests an analysis directed at two issues. First, the current regulations essentially create a closed system. The Council wishes to consider the impact of allowing all catcher/processors to choose partial coverage on the same basis rather than only allowing that choice to catcher/processors that met production requirements in 2003-2009. In recognition of the Council's data quality objectives, the allowance for placing a catcher/processor in partial coverage should, at a minimum, be based on a measurement of ongoing production that shows that the catcher/processor processes a small amount of groundfish relative to the rest of the catcher/processor fleet.

Second, the current regulations do not provide a way to move a catcher/processor placed in partial coverage based on 2003-2009 production into full coverage if future production increases to a level deemed appropriate for full coverage.

¹¹ NMFS's Response to Comment 50, Final Rule, 77 FR 70062, 70075 (Nov. 21, 2012).

In assessing alternatives for revising the allowances for placing small catcher/processors in the partial observer coverage category, the Council is seeking to meet the following objectives:

- *Maintain a relatively limited exception to the general requirement that all catcher/processors are in the full coverage category so that independent estimates of catch can be made for these operations;*
- *Establish an appropriate balance between data quality and the cost of observer coverage; and*
- *Establish a basis for placing catcher/processors into partial coverage that is not unduly difficult to apply and to enforce.*

4 Summary of recommended alternatives for analysis

NMFS recommends that the Council adopt the following alternatives for analysis:

Alternative 1, No Action; maintain the three existing allowances for NMFS to place small catcher/processors in partial coverage.

Alternative 2, Revise the allowances for NMFS to place small catcher/processors into partial coverage. Under this alternative, the basic criterion for placing a catcher/processor in partial coverage is the vessel's production in the prior year or most recent year of production.

The Analysis will evaluate the following measures of a catcher/processor's production in the prior year or most recent year of production as a basis for placing a catcher/processor into partial coverage:

Option	Measure	Threshold based on 10 th percentile approach	Threshold based on kernel density distribution approach
		Pounds (metric tons)	
1.	Average daily production	11,000 (5.0)	15,500 (7.0)
2.	Average weekly production	42,000 (19.1)	79,000 (35.8)
3.	Maximum daily production	26,000 (11.8)	44,000 (20.0)
4.	Maximum weekly production	94,000 (42.6)	197,000 (89.4)
5.	Annual production	677,000 (307.1)	2,665,000 (1,208.8)

Sources: Percentile based thresholds summarized from Table 4 in Appendix B; kernel density based thresholds derived from Table 5 in Appendix B. Tonnage estimates based on rounded pound values reported in table.

Under this alternative, if a catcher/processor is required to have $\geq 100\%$ observer coverage because of the vessel's participation in a catch share program, the vessel would be ineligible for partial observer coverage under this action. Vessels currently required to have $\geq 100\%$ observer coverage include catcher/processors permitted under the American Fisheries Act; catcher/processors that may fish Amendment 80 Quota Share; catcher/processors that participate in the Rockfish Quota Share Program, the Community Development Quota (CDQ fisheries), the Aleutian Islands pollock fishery; and the longline catcher/processor subsector.

The Analysis will evaluate whether the basic production criterion for placing a catcher/processor in partial coverage should be modified based on any of the following factors:

- Whether a catcher/processor is a hybrid vessel, that is, a catcher/processor operates as a catcher vessel for part of the year and a catcher/processor for part of the year;
- Whether the owner of a catcher/processor chooses partial coverage;
- Whether a catcher/processor uses particular gear;
- Whether a catcher/processor operates in a fishery with a PSC limit;
- Whether a catcher/processor is just starting or is resuming processing and therefore its production in the prior year was zero.

Alternatives not advanced for analysis

These alternatives will not be advanced for further analysis: [1] eliminating all allowances to place a catcher/processor into partial coverage; [2] another one-time election to choose partial coverage; and [3] an allowance for partial coverage based on crew size on the vessel.

5 History of This Action

5.1 Chronology

The following chronology shows the key events in the development of the Restructured Observer Program that bear on this action. Under the Restructured Observer Program, the system for vessel owners to register trips and for NMFS to assign observers is the Observer Declare and Deploy System or ODDS.

June 2010	Council and NMFS staff prepare Initial Review Draft of the Analysis of Amendments 86/76. Alternative 3 places all catcher/processors in the full coverage category.
Oct. 2010	Council releases Public Review Draft Analysis of Amendments 86/76. Alternative 3 still places all catcher/processors in the full coverage category.
Oct. 2010	At Council meeting, Council receives public testimony in favor of exempting small catcher/processors from full coverage based on the catcher/processor's activity from 2003 to 2009.
Oct. 2010	Council takes final action on Amendments 86/76. Council changes Alternative 3 and adds two allowances for catcher/processors to choose partial coverage based on activity between 2003 - 2009: the hybrid allowance and the under 5,000 pounds allowance. Council Final Motion on October 8, 2010, adopts Alternative 3 with this change as the Council's Preferred Alternative.
March 2011	Council and NMFS staff complete Analysis of Amendments 86/76 including Council's Preferred Alternative 3. ¹²
March 2012	NMFS publishes Notice of availability of Amendments 86/76, 77 FR 15019 (March 24, 2012).

¹² The Analysis of Amendments 86/76 is on the NMFS Alaska Region website at https://alaskafisheries.noaa.gov/analyses/observer/amd86_amd76_earirirfa0311.pdf.

- April 2012 NMFS publishes a proposed rule to implement Amendments 86/76, 77 FR 23326 (April 18, 2012). The proposed rule contains three allowances for catcher/processors to choose partial coverage: the hybrid allowance, the under 5,000 pounds allowance, and, with the concurrence of the Council and the OAC, the one metric ton allowance to be consistent with an LLP regulation. The one metric ton allowance allows a vessel to choose partial coverage if it processed one metric ton or less on every day of the previous year. It is not limited to the years 2003 – 2009.
- June 2012 Secretary of Commerce approves Amendments 86/76.
- Nov. 2012 **NMFS publishes final rule. NMFS received public comments on the proposed rule from owners and operators of catcher/processors that began processing after 2009. These comments asked that the rule allow these catcher/processors to be in partial coverage on a similar basis to what the rule allowed for catcher/processors that processed before 2009. NMFS responds that this issue was not analyzed. NMFS states that these members of the public should bring this issue to the Council for separate rulemaking. See NMFS’s response to Comment 50. 77 FR 70062, 70075 (Nov. 21, 2012).**
- June 2013 OAC discusses specific proposals to amend the Restructured Observer Program including [1] allowing more catcher/processors to be in partial coverage category based on activity of a catcher/processor as both a catcher vessel and a catcher/processor and [2] allowing more catcher/processors to be in partial coverage based on production levels. (OAC Report, June 2013)
- June 2013 Council requests a discussion paper on proposals for changes in the Restructured Observer Program including a change in the allowances for catcher/processors to choose partial coverage “[f]or vessels that previously operated as CVs and CPs within a year, consider options to allow an annual election; revisions to the control date for making the election and production tonnage criteria.” Council Motion (June 7, 2013).
- Jan. 2014 NMFS provides Discussion Paper to Council, “Scoping and Prioritization of Proposed Amendments to the North Pacific Groundfish and Halibut Observer Program.” NMFS analyzes five possible regulatory amendments on these topics: [1] vessels IFQ fishing in multiple regulatory areas; [2] allowing catcher vessels in the BSAI Pacific cod fishery to be in full observer coverage; [3] exempting from observer coverage vessels fishing for small amounts of IFQ; [4] changing the method for fee collection from the FIQ fishery; [5] revising the allowances for small catcher/processors to be placed in partial coverage.
- Feb. 2014 OAC places a high priority on revising the allowances for placing small catcher/processors in partial coverage: “Many members cited the need to resolve an ongoing financial hardship caused by the current implementation of the program as the reason for prioritizing some amendments over others. Using this rationale, the majority of OAC members identified the changes of coverage category for the BSAI Pacific cod trawl CVs, and for small catcher/processors, as the two highest priority issues.” OAC Report (Feb. 2014)
- Feb. 2014 Council adopts motion, “The Council identifies changes to observer coverage for small catcher/processors as the highest priority, followed by changes for BSAI trawl CVs. These will not have precedence over existing priorities.” Council Motion (Feb. 9, 2014).¹³

¹³ The “existing priorities” were the annual observer report (on the prior year); the annual deployment plan (for the upcoming year); electronic monitoring; analyzing issues on data from vessels delivering to tenders; and analyzing alternatives to encourage participation by small vessels in the Pacific cod CDQ fishery. Discussion Paper – Scoping and Prioritization of Proposed Amendments to the Observer Program at page 5 (Jan. 29, 2014) available at Council website, <http://www.npfmc.org/observer-program/>.

5.2 Summary of comments from industry

NMFS has reviewed the comments from industry received by NMFS, the OAC and the Council on revising the allowances for placing small catcher/processors in partial coverage. The comments all state that an owner of a catcher/processor cannot have a reasonable, small scale processing operation with a maximum limit of one metric ton every day and 365 metric tons for a year. In reviewing the historical data on production of catcher/processors from 2009 – 2014, no catcher processor processed one metric ton or less on every day in any of those years. NMFS has received no requests for partial coverage based on the one metric ton allowance.¹⁴

The commenters primarily described three situations where they believe that the cost of full observer coverage is inequitable: catcher/processors that use jig gear; catcher/processors that process relatively small amounts of groundfish compared to the rest of the catcher/processor fleet; and catcher/processors that act as hybrid vessels, namely catcher/processors that act as catcher vessels part of the year and catcher/processors during other parts of the year.

First, catcher/processors using jig gear. Some catcher/processor vessels catch some groundfish species (cod, rockfish and pollock) with jig gear. Some catcher/processor vessels have confined their fishing to State waters to avoid the costs of full observer coverage. The owners of jig gear vessels state that they would like to participate, or participate more fully, in the groundfish fisheries in federal waters but have found the cost of full observer coverage prohibitive.

These vessel owners emphasize that they catch relatively small amounts of groundfish and that fishing with jig gear results in virtually no bycatch. The treatment of catcher vessels using jig gear supports that contention. Before the Restructured Observer Program, vessels using jig gear did not have to carry observers. During the development of the Restructured Observer Program, NMFS stated that due to the small total weight of landings by vessels using jig gear, it was not necessary to expand observer coverage to jig vessels.¹⁵ NMFS stated that it would place jig vessels in the “partial coverage category,” but would place jig vessels in the no selection or zero coverage pool within the partial coverage category.

NMFS has done that. Under the annual deployments plans for 2013 and 2014 and the draft plan for 2015, NMFS placed all catcher vessels using jig gear in the no selection or zero coverage pool, which means that NMFS does not place observers on these vessels at all.¹⁶ Thus, since the beginning of the Restructured Observer Program, a catcher vessel using jig gear is in the no selection pool but a catcher/processor using jig gear is in full coverage.

Second, catcher/processors that process small amounts of groundfish relative to the rest of the catcher/processor fleet.¹⁷ The current regulations allow a catcher/processor to choose partial coverage if it had an average daily production of less than 5,000 pounds (2.27 metric tons) in its last full year of production from 2003 to 2009. This allowance for partial coverage has no limit on the vessel length. One vessel chose partial coverage based on this provision alone. A second vessel chose partial coverage based

¹⁴ NMFS notes one situation where a catcher/processor might be placed in partial coverage under the one metric ton allowance. A catcher/processor that is just starting processing in 2009, or resuming processing after a gap, could be placed in partial coverage because the vessel’s production in the prior year would be zero pounds every day, which is one metric ton or less every day. See Section 6.1.1 (a description of the one metric ton allowance) and Section 6.2.2 (recommendation to analyze whether the zero production year calls for any special requirements).

¹⁵ Analysis of Restructured Observer Program at page 160 (March 2011). Figure 9 in that Analysis has the total weight of landings by gear type in 2008.

¹⁶ All of the annual deployment plans (draft and final) for the Restructured Observer Program are available on the NMFS Alaska Region website. <https://alaskafisheries.noaa.gov/sustainablefisheries/observers/default.htm>

¹⁷ This includes catcher/processors using jig gear but they are separately discussed in the prior point.

on this provision and the hybrid allowance (it had also acted as a catcher vessel and catcher/processor between 2003 – 2009).

Some industry participants have stated that [1] they started processing after 2009, or would like to start processing after 2009, [2] they would be processing relatively small amounts of groundfish relative to the rest of the fleet, [3] the cost of full observer coverage takes, or would take, a disproportionate source of their revenue. They point to the long distances that must be traveled to harvest sablefish IFQ in the Bering Sea and Aleutian Islands and state that the cost of full observer coverage makes fully harvesting that resource uneconomical. It is accurate that the Bering Sea and Aleutian Islands are the only areas where the sablefish IFQ is consistently not fully harvested. The percent of sablefish IFQ landed in these areas from 2000 – 2013 ranges from 40 to 60 percent.¹⁸

These participants have asked that the Council and NMFS analyze different thresholds or levels below which catcher/processers could elect partial coverage besides 5,000 pounds (2.27 metric tons) average daily production in the vessel's most recent year of production between 2003 and 2009. NMFS received suggestions to analyze thresholds of average daily production of 3,000 lbs (1.4 mt), 5,000 lbs (2.3 mt), 7,000 lbs (3.1 mt), 4.5 mt (9,921 lbs), 5 mt (11,023 lbs), 7 mt (15,432 lbs), and 10 mt (22,046 lbs).

Third, vessels that operate as catcher vessels part of the year and catcher/processers other parts of the year. The current regulations allow a catcher/processor to choose partial coverage if it operated as a catcher vessel and a catcher/processor in any year between 2003 to 2009 and the catcher/processor was less than 60 feet LOA. One catcher/processor chose partial coverage based on this allowance only. One catcher/processor chose partial coverage based on this allowance and the under 5,000 pounds allowance.

An industry participant that started processing in 2011 operates as a catcher vessel with crab and pot gear for part of the year and operates as a catcher/processor for the rest of the year. The vessel processes relatively small amounts of groundfish but is ineligible for partial coverage under the hybrid allowance in the current regulation as a hybrid vessel because the vessel owner started processing in 2011. This participant states that the requirement for full coverage under the Restructured Program has tripled the vessel's observer costs and results in payment of observer fees in excess of five percent of the vessel's gross revenues.

For purposes of observer placement, a vessel is classified as a catcher/processor according to the operation on its Federal Fishing Permit (FFP). A vessel designated as a catcher/processor on its FFP at any time during a year is classified as a catcher/processor for the remainder of the year.¹⁹ Because a hybrid vessel operates as a catcher/processor during the year, it will have an FFP with a catcher/processor designation. Therefore, NMFS must place a hybrid vessel in full observer coverage for the entire year, even when the vessel operates as a catcher vessel and even though other catcher vessels of the same size are in the partial coverage category.

In addition to the situations described above, NMFS received suggestions of another one-time election to choose partial coverage and an allowance for partial coverage based on crew size of seven or less. NMFS does not recommend further analysis of these alternatives for reasons described in Section 6.3, Alternatives not advanced for further analysis.

¹⁸ Restricted Access Management website (RAM) for the NMFS Alaska Region at <https://alaskafisheries.noaa.gov/ram/ifqreports.htm>

¹⁹ 50 CFR 679.51(a)(2)(iv)(A), reprinted in Appendix B. The regulations place some limit on a permit holder's ability to surrender an FFP and have it reissued. See 50 CFR 679.4(b)(4).

6 Description of Alternatives

6.1 Alternative 1, No Action

The No Action Alternative is the same as the Status Quo Alternative. If NMFS takes no action, the current regulations will remain in effect. The current regulations at 50 CFR 679.51(a)(2) specify the criteria for determining which catcher/processors may be in partial coverage. Appendix A contains 50 CFR 679.51(a)(2).

6.1.1 Current allowances

The current regulation [50 CFR 679.51(a)(2)] states that NMFS will place all catcher/processors in the full coverage category except if the owner of the catcher/processor meets the requirements for NMFS to place the catcher/processor in partial coverage. The current regulation allows NMFS to place a catcher/processor in partial coverage in three circumstances:

1. The hybrid allowance: The hybrid allowance applies to a vessel that acted as both a catcher vessel and a catcher/processor vessel in the same year in any year between 2003 - 2009. The owner of a catcher/processor less than 60 feet may make a one-time election of partial coverage, if the vessel had a history of catcher/processor and catcher vessel activity in one (or more) years between 2003 and 2009 and if the owner elects partial coverage at least 30 days before the vessel's first trip under ODDS.
2. The under 5,000 pounds allowance: The owner of a catcher/processor may make a one-time election of partial observer coverage, if that catcher/processor had an average daily production of less than 5,000 pounds round weight equivalent in its most recent full calendar year of operation from 2003 through 2009 and if the owner makes the election before the catcher/processor's first trip under ODDS. This exception is also based on the activity of the catcher/processor between 2003 and 2009 but is not limited to vessels under 60 feet.
3. The one metric ton allowance: Under this allowance, the owner of a catcher/processor may be included in the partial coverage category if that catcher/processor processed one metric ton round weight of groundfish or less on every day in the immediately preceding year. This allowance is the only current exception to full catcher/processor coverage that is not based on the catcher/processor's activity between 2003 and 2009. This allowance is based on the catcher/processor's activity in any year after implementation of the restructured Observer Program. However, it lasts for only one year. It is reevaluated every year. This allowance ends the year after the year in which the catcher/processor processes more than one metric ton on any day of the year.

NMFS has received comments from industry that a production level of one metric ton every day is too low to sustain a viable, small-scale processing operation. The data supports that contention. In the production data reviewed for this paper, no catcher/processor processed one metric ton or less on every day in any of the years 2009 to 2014. NMFS has not received any requests to place a catcher/processor in partial coverage under this provision.²⁰

²⁰ The prior Discussion Paper inaccurately stated that one catcher/processor was exempt from full coverage under the current regulation by meeting all three allowances. Discussion Paper – Scoping and Prioritization of Proposed Amendments to the Observer Program at page 11 (Jan. 29, 2014). One catcher/processor met two allowances (the hybrid allowance and the under 5,000 pounds allowance) but not the third allowance (the one metric ton allowance).

NMFS envisions one situation in which the one metric ton allowance in current regulation might be used. The circumstance is that a catcher/processor that was starting a processing operation, or resuming processing after a gap, could elect partial coverage because it would have processed zero pounds in the prior year and zero pounds is less than one metric ton every day in the prior year. Even if a catcher/processor owner that was starting a processing operation could use this allowance in its first year of operation, the owner would almost certainly process more than one metric ton on at least one day during its first year of operation and would be placed in the full coverage category for its second and subsequent years. The one metric ton allowance does not provide an allowance for partial observer coverage for a small catcher/processor that wishes to operate a sustainable small-scale processing operation.

NMFS states that the one metric ton allowance was not designed to identify small catcher/processors for purposes of optimizing observer coverage. NMFS recommended this provision for consistency with the LLP which allows a catcher vessel to harvest and freeze up to one metric ton a day even though the catcher vessel does not have an LLP with a catcher/processor vessel designation.²¹ The purpose of the LLP provision is to allow limited processing by catcher vessels.

6.1.2 Table with characteristics of current allowances for partial coverage for catcher/processors

Table 1 Characteristics of the current three partial allowances in 50 CFR 679.51(a)(2)

Allowance	Election	Production Requirement	Vessel Length	Duration (FFP = Federal Fishing Permit)
Hybrid allowance	One-time – 30 days before first trip under ODDS	Vessel operated as catcher/processor and catcher vessel in any year between 2003 - 2009	< 60 feet	As long as vessel is designated without interruption as C/P and CV on FFP; allowance is transferable to future vessel owner
Under 5,000 pounds allowance	One-time – 30 days before first trip under ODDS	Average daily groundfish production < 5,000 pounds in last full year of production from 2003 to 2009	no limit	As long as same person that initially received allowance is FFP holder; allowance is not transferable to future FFP holder
One metric ton allowance	Every year	≤ 1 metric ton round weight of groundfish every day of previous year	no limit	one year

6.1.3 How many catcher/processors qualify for partial observer coverage under current regulations?

How many catcher/processors have met the requirements for the hybrid allowance and the under 5,000 pounds allowance? Three catcher/processors. NMFS has placed three catcher/processors into the partial coverage category under current regulations: one catcher/processor met both the hybrid

²¹ 50 CFR 679.4(k)(3)(ii)(D).

allowance and the under 5,000 pounds allowance; one catcher/processor met only the hybrid allowance; one catcher/processor met only the under 5,000 pounds allowance.

Are there any catcher/processors that still could meet the requirements for the hybrid allowance and the under 5,000 pounds allowance? Three catcher/processors: two for the hybrid allowance and one for the under 5,000 pounds allowance.

The owner of a catcher/processor owner may elect coverage up until 30 days before the vessel's first trip under ODDS, the vessel trip registration system under the Restructured Observer Program in effect beginning in 2013. Therefore, if a vessel has not taken a trip under ODDS, a catcher/processor might still be able to meet the requirements for either the hybrid allowance or the under 5,000 pounds allowance.

According to NMFS's historical production data, two catcher/processors less than 60 feet LOA operated as catcher vessels and catcher/processors in at least one year between 2003 to 2009 but have not taken a trip under ODDS.

According to NMFS's historical production data, one catcher/processor had an average daily groundfish production of less than 5,000 pounds in its last full year of production between 2003 to 2009 and has not taken a trip under ODDS.

Are there any catcher/processors that have met the requirements for the one metric ton allowance? No.

NMFS has received no requests to place a catcher/processor in partial coverage under the one metric ton allowance.

NMFS restates that the one metric ton allowance was not designed to identify small catcher/processors for purposes of optimizing observer coverage but was designed to be consistent with the LLP regulation that allows very limited processing by catcher vessels.²²

Once NMFS places a catcher/processor into partial coverage, are there any limits on what the catcher/processor may process and remain in partial coverage?

If NMFS places a catcher/processor in partial coverage based on the vessel's activity between 2003 to 2009, the vessel may remain in partial coverage irrespective of how much groundfish it processes in a year. Under current regulations, NMFS placed three catcher/processors in partial coverage based on the vessel's activity between 2003 – 2009. These catcher/processors therefore are under no limit as to what they may process and remain in partial coverage.

If NMFS placed a catcher/processor in partial coverage because it processed one metric ton or less on every day in the prior year, NMFS would place the vessel in full coverage the year after the vessel exceeded the one metric ton limit. This exemption from full coverage is basically good for a year and must be reevaluated each year. Since NMFS has not placed any vessels in partial coverage under the one metric ton allowance, none of the catcher/processors currently in partial coverage are subject to a production limit as a condition for remaining in partial coverage.

²² 50 CFR 679.4(k)(3)(ii)(D).

6.1.4 Summary of No Action/Status Quo Alternative

The status quo alternative is essentially a closed system. It allows the owners of catcher/processors that met production criteria from 2003 to 2009 to choose partial coverage. It allows these catcher/processor owners to maintain partial coverage irrespective of how much groundfish they process.

6.2 Alternative 2, Revising allowances for placing small catcher/processors in partial coverage

Alternative 2 would revise the allowances for small catcher/processors to be placed in the partial observer coverage category.

6.2.1 Basic criterion for allowance - production in the prior year

NMFS recommends that the Analysis should examine revising the allowances for placing a catcher/processor in partial coverage. NMFS recommends that the basic criterion for analysis is a vessel's production in the prior year or, if the vessel did not operate in the prior year, the vessel's most recent year of production.

NMFS recommends this as the basic criterion for analysis for several reasons: a catcher/processor's processing fish at sea, or production, is what distinguishes catcher vessels from catcher/processors; a year is the standard measure of a vessel's activity and is the length of time that NMFS places a vessel in partial or full observer coverage; the amount of a vessel's production is a standard indication of the size and scale of a processing operation; the amount of a vessel's production is a reasonable way to estimate how much data would be subject to partial observer coverage and whether that much data in partial coverage would undermine data quality; the current regulation has allowances based on yearly measures of production – average daily production of 5,000 pounds in a year and a maximum daily production of 1 metric ton in a year; a vessel owner is under strict legal requirements to report all production to NMFS; and a vessel's production is relatively straightforward to assess and is rarely subject to dispute.

The Analysis will express production levels of catcher/processors in pounds with the metric ton equivalent in parenthesis.

How should the Analysis measure a catcher/processor's production in the prior year?

There are different ways to measure a vessel's production. To make recommendations for this paper, NMFS looked at the historical data on production by catcher/processors to assess what levels of production seem to distinguish small catcher/processors, by production, from larger catcher/processors. Appendix B contains the result of that effort.

NMFS recommends analyzing five ways to measure a catcher/processor's production in a year: a vessel's total production in the prior year; a vessel's average weekly production in the prior year; a vessel's average daily production in the prior year; a vessel's maximum daily production in the prior year; a vessel's maximum weekly production in the prior year.²³

²³ Appendix B at page 20 explains how NMFS defined those categories of production and what data it used to determine the levels of production for each measure.

Appendix B contains data on these five measures of production by catcher/processors from 2009 to 2014.²⁴ Appendix B largely expresses the data in “vessel years.” Appendix B looks at production data for 52 non-trawl catcher/processors, which fished, in total, 242 separate years, and at data for 38 trawl catcher/processors, which fished, in total, 217 separate years.

What levels of productions for catcher/processors should be analyzed?

The levels of production in the current regulation for placing catcher/processors into partial coverage are 5,000 pounds of average daily production between 2003 – 2009 and one metric ton each day in the prior calendar year. The levels of production in the current regulation did not result from an analysis of production data to determine what levels of production could distinguish small catcher/processors that process relatively small amounts of groundfish compared to the rest of the catcher/processor groundfish fleet.

NMFS wished to ground its recommendations for separating small catcher/processors from larger catcher/processors in an examination of the production data of the catcher/processor fleet. Appendix B describes how NMFS examined the historical data and arrived at its recommendations for the analysis. This section summarizes the results, which are more fully described in Appendix B.

Appendix B describes the two methods used to examine the historical data. These methods are based on alternative ways of examining the distribution of vessel years by production levels. The first method identifies the 10th percentile of the distribution of vessel years.²⁵ Table 6 in Appendix B provides estimates of the number of years in which individual vessels would have fallen beneath the 10th percentile thresholds from 2009 through 2014, and thus been eligible for partial coverage of their catcher/processor activity. Under this method, 8 to 10 vessels would be eligible for partial coverage in from 24 to 25 vessel years. Since the period under consideration is 6 years, that is an average of about 4 vessels a year.

The second method examines curves, derived from the data, that describe the distribution.²⁶ Under the second method, Table 7 in Appendix B shows that the day- and week-based alternatives would permit ten to twelve vessels to qualify for partial observer coverage in a total of 30 to 34 years (depending on the measure used). Given the six years of data used for this analysis (2009 – 2014), this is an average of about 5 to 6 vessels with partial coverage a year. The annual measure would allow 20 vessels to qualify in at least one year, with a total of 46 vessel years of qualifications. This would average almost 8 vessels a year.

The first method produces estimates that are systematically lower than the second. NMFS believes that, taken together, the two methods provide a reasonable range of threshold options for use in the analysis. A detailed discussion of the methods, and of how they were used to identify the thresholds, may be found in Appendix B.

²⁴ This discussion paper was prepared in November 2014, and uses data up through November 8, 2014. Complete data for 2014 will be used in the draft Analysis.

²⁵ This method is explained in Appendix B at pages 24 – 26.

²⁶ The curves are kernel density measures of the distribution of the data. This method is explained in Appendix B at pages 26 – 28.

Table 2 Production measure specific threshold options proposed for consideration by the Council as it designs the alternatives and options for analysis

Option	Measure	Threshold based on 10 th percentile approach	Threshold based on kernel density distribution approach
		Pounds (metric tons)	
1.	Average daily production	11,000 (5.0)	15,500 (7.0)
2.	Average weekly production	42,000 (19.1)	79,000 (35.8)
3.	Maximum daily production	26,000 (11.8)	44,000 (20.0)
4.	Maximum weekly production	94,000 (42.6)	197,000 (89.4)
5.	Annual production	677,000 (307.1)	2,665,000 (1,208.8)
Sources: Percentile based thresholds summarized from Table 4 in Appendix B; kernel density based thresholds derived from Table 5 in Appendix B. Tonnage estimates based on rounded pound values reported in table.			

These thresholds are based on production data from non-trawl vessels. All of the vessels that are, or could be, subject to partial coverage under current regulations are non-trawl vessels. Only owners or operations of non-trawl vessels have asked the Council and NMFS to reexamine the allowances for placing small catcher/processors in partial coverage.

The proposed thresholds do not exclude any vessel by gear type. Under Alternative 2, as proposed, the Analysis will examine whether a vessel's gear type should be an additional factor in whether a vessel is eligible for partial observer coverage.

6.2.2 Additional factors

The Analysis will evaluate whether the basic production criterion for placing a catcher/processor in partial coverage should be modified by any of the following five factors:

[1] Whether a catcher/processor is a hybrid vessel, that is, a catcher/processor that operates as a catcher vessel for part of the year and a catcher/processor for part of the year. Under current regulations, a vessel that operated as a catcher vessel and a catcher processor during 2003 – 2009 may elect partial coverage. The Analysis will evaluate continuing that provision in Alternative 1. The current regulation does not allow a vessel that began operating that way after 2009 to elect partial coverage. The OAC and the Council have requested consideration of a hybrid allowance that would apply to vessels that operate this way after 2009.²⁷ The Analysis should therefore evaluate that factor.

[2] Whether the owner of a catcher/processor chooses partial coverage. Under the current regulation, a catcher/processor owner must choose partial coverage at least 30 days before the catcher/processor embarks on a trip under ODDS. Otherwise, the catcher/processor is placed in full coverage.

Under Alternative 2, if the Council approves analyzing placing a catcher/processor in partial coverage based on the vessel's prior year of production, the Analysis will evaluate the two basic ways to implement that criterion with respect to owner choice: [1] NMFS allows the owner of a catcher/processor that met the regulatory criteria in the prior year to choose the placement of the vessel in partial coverage; [2] NMFS places a catcher/processor into partial coverage based on whether the vessel met the regulatory criteria in the prior year without any request from the owner.

²⁷ Section 5.1, Chronology, describes the OAC and Council action in June 2013 and February 2014.

The Analysis will evaluate the potential for either alternative to skew the data. In analyzing the “owner choice” alternative, the Analysis will evaluate the deadline for the owner to elect partial coverage.

[3] Whether a catcher/processor uses particular gear. None of the current allowances for partial coverage are limited to catcher/processors using a specific gear type. The analysis of proposed thresholds in this discussion paper has focused primarily on vessels using “non-trawl gear,” which includes hook-and-line, pot, and jig gear. The three catcher/processors that are in partial coverage under the current allowances use either hook-and-line or jig gear. In addition, none of the industry participants that have asked the Council and NMFS to review the allowances for small catcher/processors operate vessels using trawl gear.

The analysis of Alternative 2 will provide information about production levels for all catcher/processors by gear type so that the Council and public can see the range of relative production levels for the various gear types. In addition, the analysis will identify how many trawl catcher/processors are in full coverage due to their participation in catch share programs with transferable PSC, which is one of the reasons for the general requirement that catcher/processors are in full coverage.

[4] Whether a catcher/processor operates in a fishery with a PSC limit. An important component of the Catch Accounting System is estimating prohibited species catch (PSC) by vessels participating in fisheries that are constrained by a PSC limit. PSC by vessels with observers is estimated based on the data collected by observers on that vessel. PSC by vessels that are not carrying an observer is estimated based on PSC by observed vessels. Allowing catcher/processors to move from full coverage to partial coverage reduces the observer data collected from the vessel and requires the application of PSC rates from observed vessels.

In addition to a production threshold that identifies small catcher/processors, the Analysis will evaluate whether a catcher/processor below the threshold is participating in a fishery in which a PSC limit constrains the fishery.²⁸ The following are subject, and not subject, to a PSC limit:

- Vessels directed fishing for halibut IFQ or CDQ are not subject to a PSC limit.
- Halibut discarded by vessels directed fishing for groundfish using pot or jig gear does not accrue to a halibut PSC limit. This decision is made annually by the Council in the harvest specifications process.
- Halibut discarded by vessels directed fishing for sablefish using hook-and-line gear does not accrue to a halibut PSC limit. This decision is made annually by the Council in the harvest specifications process.
- Halibut discarded by vessels using hook-and-line gear and directed fishing for groundfish other than sablefish accrues to a halibut PSC limit. For the catcher/processors using hook-and-line gear, the halibut PSC limit primarily affects those directed fishing for Pacific cod.
- All vessels using trawl gear are subject to one or more PSC limits (halibut, salmon, crab, and herring).²⁹

In addition to considering the data quality concerns specific to PSC monitoring, the Analysis will provide information about potential administrative and other concerns from placing a catcher/processor in both full and partial coverage during the same year based on the target fishery.

²⁸ In this case, PSC refers to the prohibited species catch of halibut, salmon, crab, and herring (as opposed groundfish species put on “prohibited species” status to limit further retained catch).

²⁹ This list may not be exhaustive.

[5] Whether a catcher/processor is just starting processing, or is resuming processing after a gap. If a catcher/processor's production in the prior year was the sole basis for placing the vessel in partial coverage, a catcher/processor that was just starting processing or was resuming processing after a gap would be eligible for partial coverage. NMFS notes that the basic criterion for analysis is the vessel's production in the prior year or the vessel's most recent year of production. If a vessel had never processed, it would have no most recent year of production. A vessel could therefore have a zero-year of production simply in the immediately prior year or in all prior years.

Under Alternative 2, the Analysis will evaluate whether the zero-production year situation calls for any additional requirements for placing a catcher/processor in partial coverage. The additional criteria could be the gear used by the vessel, the length of the vessel, or the fishery in which the vessel operates.

6.3 Alternatives not advanced for further analysis

Analysts recommend that the following three alternatives not be advanced for further analysis: [1] eliminating all allowances to place a catcher/processor in partial coverage; [2] another one-time election; [3] an allowance based on crew size.

[1] Eliminating all allowances to place a catcher/processor in partial coverage. Neither the Council nor the public has suggested completely eliminating the allowance for placing some small catcher/processors in partial coverage. Further, the history of this action, fairly read, does not include consideration of eliminating entirely all allowances for placing small catcher/processors in partial coverage. The final Council Motion adopting the Restructured Observer Program recognized the principle that the Program should allow for some small catcher/processors to be placed in partial coverage. In response to requests from industry participants to establish that privilege for a vessel that began, or wishes to begin, processing after 2009, the OAC in June 2013 and in February 2014 recommended analyzing expanding the allowances. The OAC Report in February 2014 cited "ongoing financial hardship" caused by the requirement for full observer coverage as the rationale for prioritizing this action.

The Council Motion in June 2013 asked for discussion paper on actions that would provide for a limited expansion of the allowances for small catcher/processors to be placed in partial coverage. Finally, the Council Motion in February 2014 identified "changes to observer coverage for small catcher/processors as the highest priority." Although the word "changes" in the Council Motion technically could include "elimination," in the context of the history of this action, analysts concluded that the Council is seeking ways to revise, but not eliminate, the limited provisions for small catcher/processors to be placed in partial coverage. This conclusion also is consistent with the draft problem statement and objectives for this action presented in Section 3.

[2] Another one-time election for partial coverage. NMFS does not recommend advancing for analysis another one-time election. The current regulations allow the owner of a catcher/processor to choose partial coverage based on activity from 2003 to 2009. It is possible that the NMFS could establish, by regulation, another window for owners of catcher/processors to choose partial coverage, such as activity from 2010 to 2015. This would not meet the objectives for this action for two reasons. First, although it would enlarge the closed category, the allowance would still be a closed category that was not based on a catcher/processor's ongoing production activity. Second, it would not terminate the vessel's placement in the partial coverage category once it stopped processing small amounts of groundfish relative to the rest of the catcher/processor fleet.

[3] An allowance for partial coverage based on crew size. An industry participant recommended analyzing an exemption from full observer coverage based on the crew size of the catcher/processor as well as analyzing an exemption for small catcher/processors measured by a vessel's production. An exemption based on crew size does not meet the objectives for this action because it does not place a catcher/processor in partial coverage, and have them remain in partial coverage, by determining whether they process a small amount of groundfish relative to the other vessels in the catcher/processor fleet.

Further, NMFS sees several additional problems with this alternative. First, NMFS has never based a regulatory requirement on crew size. It is an untested criterion. Second, even though NMFS collects data on crew size, since NMFS has never based a regulatory requirement on crew size, NMFS is not confident that it has reliable data to analyze this criterion. Third, this criterion would be hard to define. Would crew include a cook? Would the allowance be based on the average number of crew or the number of crew on a catcher/processor on any one day? Fourth, this criterion would be hard to enforce. A catcher/processor could drop off crew before coming to shore. Finally, the criterion of a catcher/processor's production in the prior year is a direct measurement of the catcher/processor's production relative to the rest of the fleet. It is possible that a catcher/processor with relatively low production would likely be a catcher/processor with a small crew. But NMFS sees no reason to further analyze placing a catcher/processor in partial coverage based on the crew size when the Analysis will be evaluating placing a catcher/processor in partial coverage on these grounds: a vessel's production, a vessel's operation as a hybrid vessel, a vessel owner's election of partial coverage, a vessel's gear type, a vessel's operation in a fishery with a PSC limit, and a vessel's beginning or resuming processing.

7 FMP Amendment

Section 3.2.4.1 of the BSAI FMP authorizes and describes the Observer Program as follows:

At the core of the North Pacific monitoring system is a comprehensive, industry-funded, on-board and onshore observer program, coupled with requirements for total weight measurement of most fish harvested. All vessels fishing for groundfish with a federal fishing permit in federal waters or in a State of Alaska parallel fishery, and all vessels fishing halibut and sablefish IFQ in federal or state waters, are included in the observer program and may be required to carry one or more observers for at least a portion of their fishing time.

Vessels and processors that have <100% observer coverage requirements are subject to an ex-vessel value based fee not to exceed 2%, as implemented and revised through regulations, and are required to carry an observer as determined by NMFS, according to an annual sampling and deployment plan. Vessels and processors that have ≥100% observer coverage requirements obtain observer coverage by contracting directly with observer providers, to meet coverage requirements in regulation.

*Generally, catcher vessels and shoreside processors, when not participating in a catch share program with a transferrable PSC limit, comprise the <100% coverage category. Catcher processors and motherships, and catcher vessels when participating in a catch share program with a transferrable PSC limit, generally comprise the ≥100% coverage category, **with potential exceptions for some <60' catcher processors**, as detailed in regulation. Used in conjunction with reporting and weighing requirements, the information collected by observers provides the foundation for inseason management and for tracking species-specific catch and bycatch amounts. [emphasis added]*

Depending on the Council's final action on this issue, the phrase "with potential exceptions for some <60' catcher processors" may need to be revised to "with potential exceptions for some small catcher processors."

APPENDIX A – Current regulation with allowances for small catcher/processors

50 CFR 679.51(a)(2) Groundfish and halibut fishery full observer coverage category

(i) *Vessel classes in the full coverage category.* The following classes of vessels are in the full observer coverage category when harvesting halibut or when harvesting, receiving, or processing groundfish in a federally managed or parallel groundfish fishery, as defined at § 679.2;

(A) Catcher/processors;

(B) Motherships; and

(C) Catcher vessels while:

(1) Directed fishing for pollock in the BS;

(2) Using trawl gear or hook-and-line gear while groundfish fishing (see § 679.2) or

(3) Participating in the Rockfish Program.

(ii) *Observer coverage requirements.* Unless subject to the partial observer coverage category per paragraphs (a)(1)(i) of this section, a vessel listed in paragraphs (a)(2)(i)(A) through (C) of this section must have at least one observer aboard the vessel at all times. Some fisheries require additional observer coverage in accordance with paragraph (a)(2)(vi) of this section.

(iii) *Observer workload.* The time required for an observer to complete sampling, data recording, and data communication duties per paragraph (a)(2) of this section may not exceed 12 consecutive hours in each 24-hour period.

(iv) *Catcher/processor classification.*

(A) **For purposes of this subpart, a vessel is classified as a catcher/processor according to the operation designation on its FFP. A vessel designated as a catcher/processor at any time during the calendar year is classified as a catcher/processor for the remainder of the calendar year.**

(B) **An owner or operator of a catcher/processor that processes no more than one metric ton round weight of groundfish on any day, may be included in the partial observer coverage category in lieu of the full coverage category for the following calendar year.**

(v) *One-time election of observer coverage category.* **The owner of a vessel less than 60 ft. LOA with a history of catcher/processor and catcher vessel activity in a single year from January 1, 2003, through January 1, 2010; or any catcher/processor with an average daily groundfish production of less than 5,000 pounds round weight equivalent in the most recent full calendar year of operation from January 1, 2003, to January 1, 2010, may make a one-time election as to whether the vessel will be in the partial observer coverage category at paragraph (a)(1) of this section, or the full observer coverage category at paragraph (a)(2) of this section. The daily groundfish production average is based on the number of days the vessel operated each year from January 1, 2003, through January 1, 2010.**

(A) *Notification of election.* **The person named on the FFP for a vessel eligible for the one-time election must notify the Regional Administrator, NMFS, P.O. Box 21668, Juneau, AK 99802, of their election in writing, at least 30 days prior to embarking on his or her first fishing trip.**

(B) *Default coverage category.* **If an owner forgoes the opportunity for the one-time election, the vessel will be assigned to the partial or full observer coverage category per paragraphs (a)(1)(i) or (a)(2)(i) of this section.**

(C) *Effective duration.* **The one-time election is effective for:**

(1) **The duration that both the catcher/processor and catcher vessel designations are listed on the FFP for vessels less than 60 ft. LOA; or**

(2) **The duration the FFP is issued to the person named on the FFP at the time of the election for catcher/processors with an average daily production of less than 5,000 pounds round weight equivalent in the most recent full calendar year of operation from January 1, 2003, through January 1, 2010.**

APPENDIX B – Preliminary data for production thresholds to analyze for placement of catcher/processors into partial coverage

This appendix explains the basis for the recommendations in the discussion paper for the thresholds proposed for analysis in Alternative 2. The appendix describes two approaches used to identify production thresholds for each of the five production measures proposed: average daily production, average weekly production, maximum daily production, maximum weekly production, and annual production.

The first approach – described here as the percentile approach – proposes thresholds based on the 10th percentile of vessel year production during the years 2009 through 2014. The second approach – described here as the kernel density approach – is based on the shape of the distribution of all non-trawl vessel year production levels during that same period. The first approach provides a set of lower thresholds, while the second provides a set of higher thresholds.

Data used in this analysis

This analysis uses a data set with individual observations for each catcher/processor in each year from 2009 through November 8, 2014. Since each observation is a vessel year observation, a vessel that fished in each year from 2009 through 2014 would be associated with six observations; a vessel that only fished in one year, perhaps 2011, would be associated with one observation.

The analysis is based on estimates of the round weight equivalent of reported processed groundfish production. Groundfish harvested and delivered without processing (that is, delivered by the vessel acting as a catcher vessel) are not included in the data.³⁰

Each vessel year observation includes data on the average daily production, average weekly production, maximum daily production, maximum weekly production, and annual production. Total annual production is an estimated round weight of processed fish, created by summing the volumes of all processed groundfish products reported to NMFS on daily production reports after applying standard product recovery rates. Average daily production is this annual round weight estimate for a catcher/processor, divided by the number of separate days on which production occurred, as determined from the daily product reports; average weekly production is this annual round weight estimate for a catcher/processor, divided by the number of separate weeks during which production occurred, as determined from the daily product reports. Maximum daily production is the round weight equivalent of the product production on the day during the year in which the catcher/processor processed the most product, and the maximum weekly production is the round weight equivalent of the production during the week during the year in which the catcher/processor processed the most product.

Weights are generally reported in pounds of the estimated round weight equivalent of processed production. Weights have been reported in pounds rather than metric tons, on the assumption that thresholds will be expressed in pounds.³¹ Average daily and weekly production are for the days and weeks actually fished. Processed production estimates are derived from weekly processors' reports.

³⁰ This is consistent with the way existing thresholds under the status quo are calculated. The current action affects the vessels insofar as they operate as catcher/processors, therefore the thresholds are based on their activity as catcher/processors.

³¹ The weight-based measure in the Council's final motion on Amendments 86/76 was in pounds.

Data on individual vessel year production is confidential, since it would provide information on an individual vessel, which may be identifiable from the data. NMFS practice is to not report information on vessel activity or production, for fewer than three vessels.

The data set begins in 2009 because that is the first year with daily production reports, permitting calculation of average daily production. Data for 2014 covers the period through November 8. This is the most recent data available at the time the analysis was prepared. The period through November 8 should cover almost all the production for the smaller IFQ catcher/processors that are an important concern in this analysis. The data set will be updated through the end of 2014 for the preparation of an initial draft analysis for Council review.

Methodology for analyzing data

Histograms are a common way to characterize distributions of a variable. In the current instance, a histogram can be used to show the numbers of vessel years falling within different production categories (such as 0 to 5,000 pounds, 5,001 to 10,000 pounds, etc.).³²

Figure 1 data shows two histograms created using the same data set, but using five “bins” of data in one case, and 20 “bins” in the second. This example data was created especially for this exercise, and does not include any confidential fisheries data. To avoid confusion with actual fisheries data, the variable in this instance is simply described as “x”.³³ The example histograms show the impact on the visual presentation of the data, and of the conclusions that might be derived, of different specifications (in this case, the number of separate bins for the data) for the histogram.

³² A histogram differs from a bar chart in that a bar chart shows the numbers of entities that would fall into discrete categories (such as numbers of self-reporting Republicans, Democrats, and Independents). A histogram summarizes information about numbers of entities falling into different categories of a continuously varying quantitative variable, such as, in this case, annual production by a vessel. Annual production by a vessel can range from 0 to millions of pounds, and can vary continuously by fractions of a pound. The appropriate set of categories for summarizing the entities are not as obvious in the case of a histogram.

³³ Dana Hanselman of the Auke Bay Lab explained the need for the following background discussion, and provided the data set.

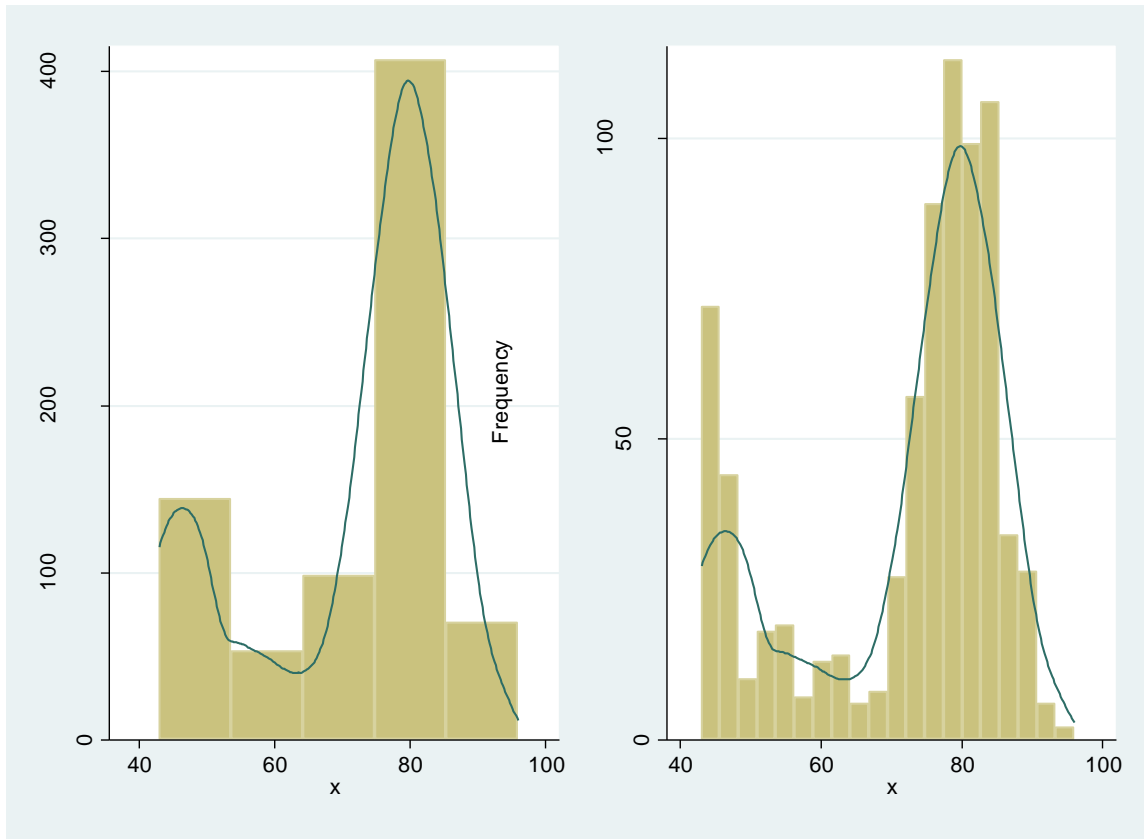


Figure 1 Sample histograms of observations on “x”; alternative pictures of the same data

Histograms have limitations. The results can change as the number and width of the bins into which the observations are grouped change; the patterns are not smooth; it is difficult to pick, from a histogram, the appropriate threshold to separate the observations that are part of the lower peak from the observations that are part of the upper peak; for many bin numbers, there will be too few observations to report some bins without risking disclosing confidential information about vessel activity. Keeping track of potentially confidential bins becomes problematic when many potential histograms are being considered for presentation purposes.

For these reasons, in addition to making use of histograms, we have chosen to describe the distributions using a smoothing tool called a “kernel density,” plot, instead of with histograms.³⁴ Figure 1 shows density plots prepared for both of the example histograms. The density plots are superimposed on the corresponding histograms, and show how they smooth out the histogram patterns.

Density plots use a formula to summarize the data around each data point. Different formulas are referred to as “kernels.” The “kernel” used to generate the density plots in Figure 1 is called the “Epanechnikov” kernel. In the analysis that follows, we will make use of this kernel, and the “Gaussian” kernel, in order to take account of the potential sensitivity of the results to different formulas.³⁵

³⁴ Histograms are actually a type of kernel density plot, as discussed in Stata “kdensity” documentation.

³⁵ The Epanechnikov is the default chosen by Stata, the program used to prepare these plots. The Epanechnikov kernel has the minimum mean integrated squared error (MISE), a desirable feature in kernels (Salgado-Ugarte, et. al., 1993). The Gaussian is another commonly utilized kernel.

As just noted, the formulas make use of data around, or in the vicinity of, each data point. For each data point, the formula calculates a weighted average of the data point and the points above and below it. The two formulas used in this analysis weight the central data points heaviest, and the data points furthest from the center, least. The range of data points that is included in the averaging is called the “bandwidth.”³⁶ The shape taken by the density plot can vary depending on the bandwidth, thus this analysis calculates the plots using three bandwidths to take account of the potential sensitivity of the results to the bandwidths.

As is apparent from this discussion, density plots and histograms share certain limitations. The information conveyed by each can change as their underlying parameters (number of bins, kernel, bandwidth) change. The density plots have been used here primarily to protect confidential information, and to provide a means of identifying a threshold with minimal subjective interpretation.

The analysis generates two alternative thresholds for each of the five measures of production that may be used as alternatives in this analysis. One set of thresholds is based on estimates of the thresholds below which 10 percent of the vessel year observations fall. The reason for using this criterion is discussed immediately below. A second set of thresholds is based on a local minimum of selected density functions describing the distribution of values of the production measures. The discussion of this approach follows the discussion of the 10th percentile approach.

Vessels required to have full observer coverage because of participation in a catch share program will not be able to take advantage of a partial observer coverage option for small catcher/processors. The analysis in this appendix abstracts from this issue, and only considers eligibility on the basis of the round groundfish weight of production levels.

Approach 1: base thresholds on the 10th percentile of the distribution of vessel year production levels

Figure 2 provides histograms summarizing the distributions for each of the five production criteria that have been proposed as alternatives for this analysis. These histograms differ along two dimensions: (1) different bin counts have been used to conceal confidential information; (2) some of the distributions underlying the histograms have been truncated to prevent reporting bins with information that may be confidential.³⁷

Each of these histograms indicates that there are small numbers of vessel years with small levels of fishery production. In general, these histograms have a first column with slightly more than 20 vessel years of observations. The annual production histogram has a first column with slightly less than 20, but the number in this column, combined with some observations from the next column, could be made to be slightly more than 20. The 52 unique non-trawl catcher/processors active in the period from 2009 through November 8, 2014 fished a total of 242 separate vessel years (treating 2014 as a year). With 242 separate vessel years of observations, this suggests that the 10th percentile (about 24 to 25 vessel years) of observations could be a good rule of thumb for identifying thresholds for each of the criteria.

³⁶ Technically, the bandwidth is actually the half-width of the window around each of the central points.

³⁷ Upper ranges of the maximum daily, maximum weekly, and annual distributions include bins with small numbers of observations. These do not affect the conclusions derived from the histograms, and have been excluded to protect data confidentiality.

Selected non-trawl C/P production density distributions

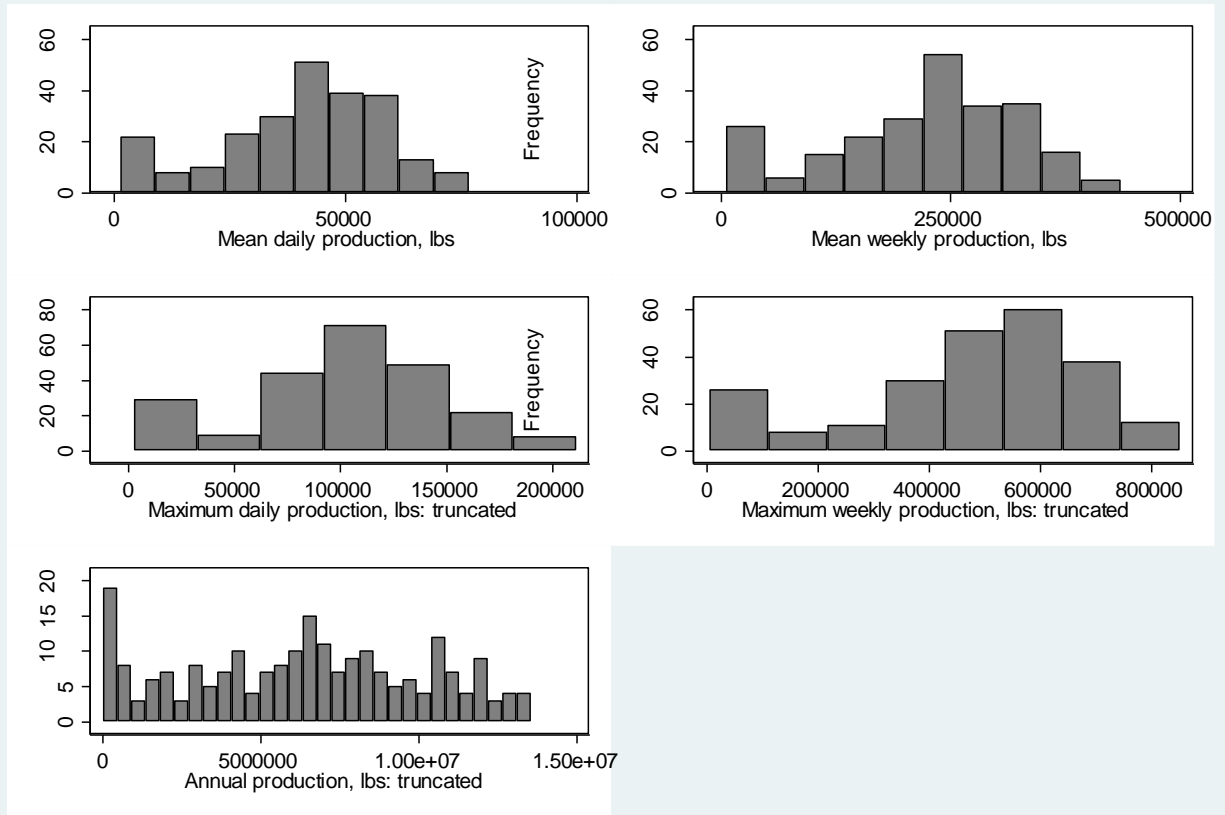


Figure 2 Non-trawl catcher/processor production histograms for each of the five criteria under consideration

Table 3 shows percentile levels, including the 10th percentile, for each of the five criteria that might be used to evaluate whether or not vessels should be eligible for partial observer coverage. These are the round weight equivalents of: (1) average daily production in days with production; (2) average weekly production in weeks with production; (3) the maximum daily production for days with production; (4) the maximum weekly production for weeks with production; and (5) total production for a year with production.³⁸

For example, the table shows that 10 percent of the vessel year observations would fall below an average daily production of 10,637 pounds. Rounding this to the nearest thousand pounds gives a threshold of 11,000 pounds (or approximately 5 metric tons of production). A set of thresholds, calculated in this way, is shown in Table 4 below, and in Table 2 of the main body of this discussion paper.

Table 3 Vessel year threshold percentiles (in pounds) for measures of production for 242 non-trawl catcher/processor-years, 2009 through November 8, 2014

Percentile	Average daily	Average weekly	Maximum daily	Maximum weekly	Annual
5%	3,388	15,486	10,926	37,375	351,749
10%	10,637	41,857	25,785	93,593	677,184

³⁸ Recall that the round weight of groundfish delivered by these vessels without processing (that is, when they acted as catcher vessels) is not counted.

25%	31,172	162,119	81,692	391,274	3,803,534
50% (median)	43,553	243,678	105,664	529,164	6,844,916
75%	53,690	300,453	133,686	630,155	10,400,000*
90%	61,174	344,780	165,236	717,820	13,000,000*
95%	66,471	372,419	195,898	783,335	15,200,000*
*rounded to nearest 100,000 pounds Source: NMFS AKRO CAS data.					

Table 4 Summary of percentile-based thresholds

Potential criterion for partial coverage qualification	Proposed threshold
Average daily production	11,000 lbs. (5 mt)
Average weekly production	42,000 lbs. (19.1 mt)
Maximum daily production	26,000 lbs. (11.8 mt)
Maximum weekly production	94,000 lbs. (42.6 mt)
Annual production	677,000 lbs. (307.1 mt)
Source: Table 3. Note: metric tonnage is calculated from the proposed poundage thresholds in the table, which themselves have been rounded from underlying percentile estimates in Table 3.	

Approach 2: evaluate the shape of the distribution of vessel year production levels

Figure 3 shows kernel density plots for each of the five production measures under consideration in Alternative 2. These distributions have been overlaid with lines showing potential small non-trawl catcher/processor thresholds that might be used in the alternatives to identify vessels that may qualify for small catcher/processor partial observer coverage.³⁹

³⁹ The labels on the vertical axes in the panels of Figure 3 have been suppressed as an additional protection for confidential data, and because they are not necessary to the point made by the panels.

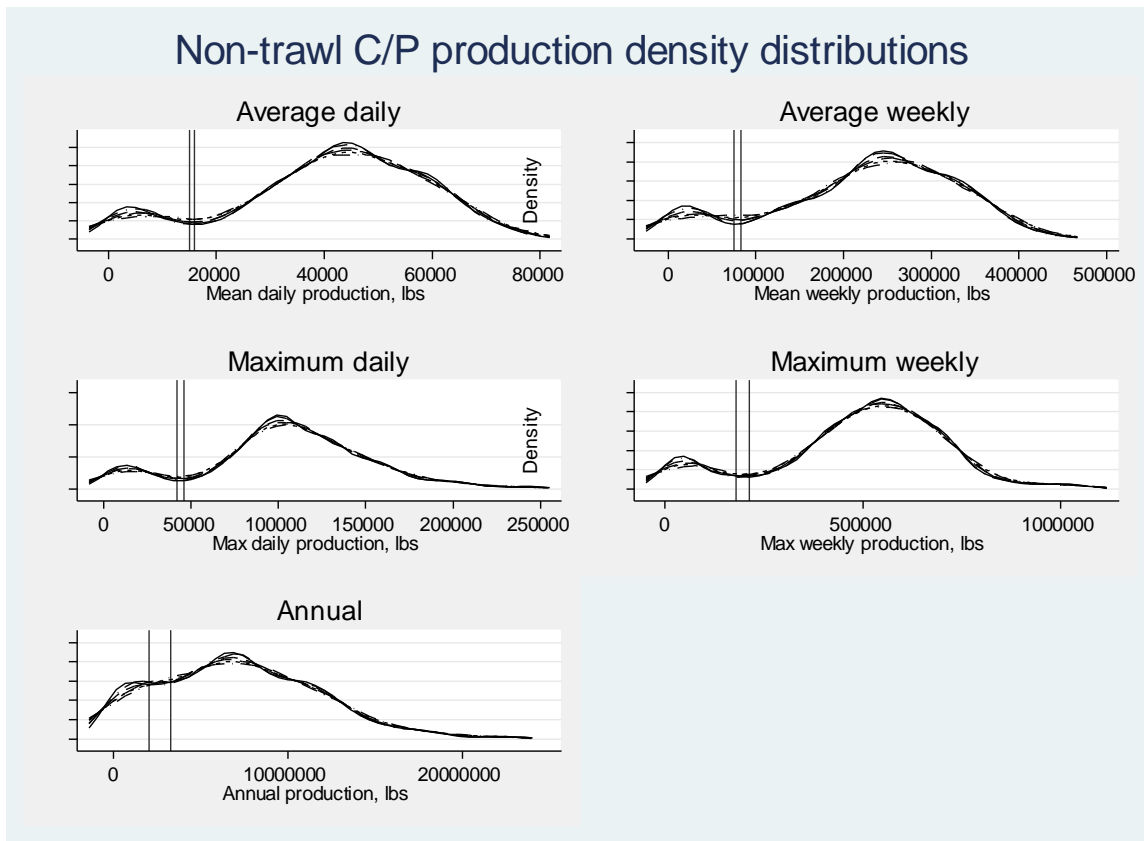


Figure 3 Density distributions of potential threshold variables for identification of small non-trawl C/Ps eligible for partial observer coverage; vertical lines indicate recommended range of thresholds. Note that values for maximum daily production in excess of 300,000 pounds a year are not shown in the figure. Source: AKRO analysis of CAS data.

Figure 3 has five panels, each of which shows the plot for each of the variables under consideration. Each plot includes six distributions overlaid. Three distributions are based on the Gaussian kernel, and three are based on the Epanechnikov kernel. Three separate bandwidths have been used for each kernel, giving a total of six distributions in each panel.⁴⁰ Multiple kernels and bandwidths have been used for each panel, to provide some sensitivity analysis.

As shown in Figure 3, each of the kernel density distributions, except possibly the annual production distribution, is bimodal. A small concentration of vessel years occurs at low levels of production, and a larger concentration occurs at higher levels of production. There is an area between these two modes where there are relatively fewer vessel years.

Each panel in Figure 3 includes two vertical lines. These identify the upper and lower points of a range of values falling between the lower and upper humps of the bimodal distribution. The lines were chosen by first finding the minimum points for each of the six separate density plots generated by the six kernel-bandwidth combinations used to create each panel. The lines shown are the highest and lowest minimum values found using this procedure.⁴¹ The other four density plot minimum points fall below these high

⁴⁰ The bandwidths were chosen in the following manner. The default Stata bandwidth was identified in each case. This is the width that would minimize the mean integrated squared error if the data were Gaussian, and a Gaussian kernel were used (Stata documentation for the “kdensity” command). Two alternative bandwidths were then identified, equal to 75 percent, and 125 percent of the Stata default.

⁴¹ The lines actually show the high and low values, rounded to the nearest 1,000 pounds.

and low values. Table 5 identifies an alternative set of potential thresholds found as midpoints of the lower and upper thresholds. These mid-point thresholds are used in the remaining non-trawl tables in this note.

Table 5 Summary of estimated kernel density based thresholds

Measure	Estimated threshold in pounds		
	Lower	Mid-point	Upper
Average daily	15,000	15,500	16,000
Average weekly	75,000	79,000	83,000
Maximum daily	42,000	44,000	46,000
Maximum weekly	180,000	197,000	214,000
Annual	2,040,000	2,665,000	3,289,000

Preliminary estimates of impacts of the proposed thresholds

Table 6 provides estimates of the number of years in which individual vessels would have fallen beneath the 10th percentile thresholds from 2009 through 2014, and thus been eligible for partial coverage of their catcher/processor activity.

Table 6 Number of years in which individual vessels falling beneath 10th percentile thresholds from 2009-2014 would qualify for a partial observer coverage option.

Vessel	Mean daily	Mean weekly	Maximum daily	Maximum weekly	Annual
A	1	1	1	1	1
B	3	3	3	3	3
C	2	2	2	2	2
D	5	5	4	5	3
E	6	5	6	6	6
F	1	1	1	1	1
G	3	3	3	3	3
H	4	4	3	2	3
I	0	1	1	1	1
J	0	0	1	1	1
Total vessel years	25	24	25	25	24

Source: AKRO determinations, based on evaluation of thresholds proposed in this discussion paper, and CAS data.

Note: Only partial production data is available for 2014 (through November 8) when this was prepared. Thus, this table may overstate number of years a vessel would qualify for partial observer coverage under some criteria. Letter identifications in this table correspond to those in Table 7.

The preceding table (Table 6) shows that 8 to 10 vessels would be eligible for partial coverage in from 24 to 25 vessel years. Since the period under consideration is 6 years, that is an average of about 4 vessels a year.

Table 7 provides information about the vessels that would qualify for partial observer coverage if the kernel density thresholds identified above were used. Each line in the table summarizes information for one of the vessels that would fall below the threshold. Each column in the table provides a count of the number of years in which each vessel in the table would qualify for partial coverage based on its measured activity in the preceding year. The thresholds used are the mid-point thresholds from Table 5.

Table 7 Number of years in which individual vessels falling beneath Kernel density thresholds from 2009-2014 would qualify for a partial observer coverage option.

Vessel	Mean daily	Mean weekly	Maximum daily	Maximum weekly	Annual
A	1	1	2	2	2
B	3	3	3	3	3
C	2	2	2	2	2
D	5	5	6	5	5
E	6	6	6	6	6
F	1	1	1	1	1
G	3	3	3	3	3
H	6	6	5	5	6
I	2	2	2	2	2
J	1	1	1	1	1
K	0	0	0	3	4
L	0	0	0	1	1
M	0	0	0	0	1
N	0	0	0	0	1
O	0	0	0	0	1
P	0	0	0	0	2
Q	0	0	0	0	1
R	0	0	0	0	1
S	0	0	0	0	1
T	0	0	0	0	2
Total vessel years	30	30	31	34	46

Source: AKRO determinations, based on evaluation of thresholds proposed in this discussion paper, and CAS data.
Note: Table is based on use of “mid-point” thresholds from Table 2. Only partial production data is available for 2014 (through November 8) when this was prepared. Thus, this table may overstate number of years a vessel would qualify for partial observer coverage under some criteria. Letter identifications in this table correspond to those in Table 6.

Counts based on Table 7 show that the day- and week-based alternatives would permit ten to twelve vessels to qualify for partial observer coverage in a total of 30 to 34 years (depending on the measure used). Given the six years of data used for this analysis (2009 – 2014), this is an average of about 5 to 6 vessels with partial coverage a year. The annual measure would allow 20 vessels to qualify in at least one year, with a total of 46 vessel years of qualifications. This would average almost 8 vessels a year.

A complementary way of looking at the alternatives is to look at the percent of years in which a vessel fished during this period in which it would have qualified for partial coverage. This gives a sense of the extent to which the alternatives provide relief for small non-trawl catcher/processors. Table 8 and Table 9 summarize this information.

Table 8 Percent of years with non-zero production (actual operational years) in which individual vessels falling beneath thresholds from 2009-2014 would qualify for a partial observer coverage option using 10th percentile thresholds.

Vessel	Mean daily	Mean weekly	Maximum daily	Maximum weekly	Annual
A	33	33	33	33	33
B	100	100	100	100	100
C	100	100	100	100	100
D	100	100	100	100	100

E	100	100	100	100	100
F	100	100	100	100	100
G	100	100	100	100	100
H	67	67	50	33	33
I	0	50	50	50	50
J	0	0	17	17	17

Source: AKRO determinations, based on evaluation of thresholds proposed in this discussion paper, and CAS data.
Note: Only partial production data is available for 2014 (through November 8) when this was prepared. Thus, this table may overstate number of years a vessel would qualify for partial observer coverage under some criteria. Letter identifications in this table correspond to those in Table 6.

Table 9 Percent of years with non-zero production (actual operational years) in which individual vessels falling beneath thresholds from 2009-2014 would qualify for a partial observer coverage option using kernel density thresholds.

Vessel	Mean daily	Mean weekly	Maximum daily	Maximum weekly	Annual
A	33	33	67	67	67
B	100	100	100	100	100
C	100	100	100	100	100
D	17	17	17	17	17
E	100	100	100	100	100
F	100	100	100	100	100
G	100	100	100	100	100
H	100	100	100	100	100
I	100	100	100	100	100
J	100	100	83	83	100
K	0	0	0	17	67
L	0	0	0	100	100
M	0	0	0	0	50
N	0	0	0	0	100
O	0	0	0	0	20
P	0	0	0	0	33
Q	0	0	0	0	17
R	0	0	0	0	100
S	0	0	0	0	20
T	0	0	0	0	33

Source: AKRO determinations, based on evaluation of thresholds proposed in this discussion paper, and CAS data.
Note: Only partial production data is available for 2014 (through November 8) when this was prepared. Thus, this table may overstate number of years a vessel would qualify for partial observer coverage under some criteria. Letter identifications in this table correspond to those in Table 7.

Table 10 provides preliminary estimates of the percentages of total non-trawl groundfish production by vessels that would qualify for partial observer coverage under the different alternatives and thresholds, in the years 2009 through 2014.

Table 10 Proportion of non-trawl C/P production, from non-trawl C/Ps with partial observer coverage under the different alternatives and threshold combinations (percentages)

10 th Percentile approach					
Year	Average daily	Average weekly	Maximum daily	Maximum weekly	Annual

2009	0.5%	0.3%	0.5%	0.5%	0.1%
2010	0.5%	0.7%	0.7%	0.7%	0.4%
2011	0.8%	0.8%	0.6%	0.5%	0.5%
2012	0.6%	0.6%	0.4%	0.4%	0.6%
2013	0.5%	0.5%	0.5%	0.5%	0.5%
2014	0.2%	0.2%	0.3%	0.3%	0.3%
Total	0.5%	0.5%	0.5%	0.5%	0.4%
Kernel density approach					
Year	Average daily	Average weekly	Maximum daily	Maximum weekly	Annual
2009	1.4%	1.4%	0.8%	0.8%	4.4%
2010	1.7%	1.7%	1.7%	2.4%	5.2%
2011	0.8%	0.8%	0.8%	0.8%	2.9%
2012	0.6%	0.6%	1.1%	1.1%	1.1%
2013	0.5%	0.5%	0.5%	1.4%	1.2%
2014	0.3%	0.3%	0.3%	1.0%	1.8%
Total	0.8%	0.8%	0.8%	1.2%	2.6%

Source: AKRO Catch Accounting System through November 8, 2014.

Small trawl catcher/processors⁴²

Some trawl catcher/processors may also fall within the thresholds under consideration here, in some years. Table 11 duplicates the contents of Table 3 above, but this time for 38 separate trawl catcher/processors. Trawl volumes are typically significantly greater than non-trawl volumes. For example, 5 percent of the non-trawl catcher/processors vessel year production was below 3,388 pounds; the similar 5 percent threshold for trawl catcher/processor vessel years was 48,774 pounds.

Table 11 Vessel year threshold percentiles (in pounds) for measures of production for 217 trawl catcher/processor-years, 2009 through November 8, 2014

Percentile	Average daily	Average weekly	Maximum daily	Maximum weekly	Annual
5%	48,774	236,880	103,835	430,073	6,890,862
10%	90,779	494,978	181,083	804,986	14,900,000
25%	168,598	890,554	325,547	1,282,683	33,000,000
50% (median)	221,355	1,179,361	521,573	2,046,919	44,300,000
75%	820,488	4,449,137	1,613,639	8,274,314	101,000,000
90%	1,122,761	6,057,800	2,296,469	11,000,000	150,000,000
95%	1,263,345	6,970,759	2,543,497	11,900,000	161,000,000

*rounded to nearest 100,000 pounds
Source: NMFS AKRO CAS data.

Figure 4 shows the density plots for trawl catcher/processors. These were calculated exactly the same way as those for the non-trawl catcher/processors. The vertical lines in these figures show the location of the proposed thresholds for non-trawl catcher/processors.

⁴² Many trawl catcher/processors are likely to be required to have full coverage under regulations relating to participation in a catch share program with transferable PSC. This has not been considered in this discussion.

It is uncommon for trawl catcher/processors to fall below the thresholds proposed for non-trawl catcher/processors. Irrespective of the type of threshold used (percentile or kernel density), during the period examined, no vessel years were below the average daily threshold, and fewer than three fell below each of the average weekly, maximum daily, maximum weekly, and annual thresholds.⁴³

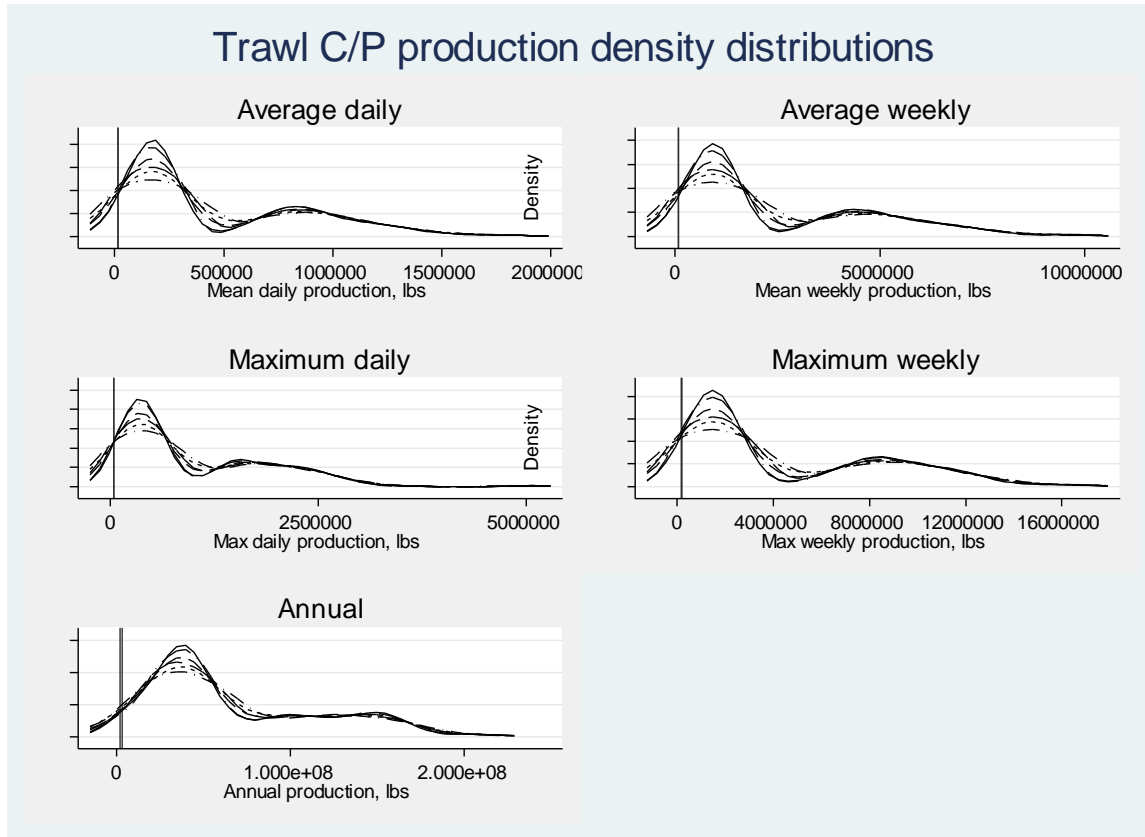


Figure 4 Density distributions of potential threshold variables for identification of small non-trawl C/Ps eligible for partial observer coverage; vertical lines indicate recommended range of thresholds. Source: AKRO analysis of CAS data.

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⁴³ These were evaluated at the upper end of the proposed ranges of non-trawl based thresholds.

