

INITIAL REVIEW DRAFT

Regulatory Impact Review / Initial Regulatory Flexibility Analysis for a Proposed Regulatory Amendment to

Require or Allow Catcher Vessels in BSAI Trawl Fisheries to be in the Full Observer Coverage Category

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Abstract: This Regulatory Impact Review/Initial Regulatory Flexibility Analysis analyzes proposed management measures that would either require or allow trawl catcher vessels fishing in the Bering Sea/Aleutian Islands (BSAI) management area to move from the partial observer coverage category to the full coverage category of the North Pacific Groundfish and Halibut Observer Program. The proposed action alternatives vary in whether a vessel would move to the full coverage category on a mandatory or a voluntary basis. If voluntary, the alternatives include options that would extend the opportunity to all BSAI trawl catcher vessels or limit it to catcher vessels that are eligible to participate in an American Fisheries Act pollock cooperative. Under the voluntary choice alternative, the Council could allow eligible vessels to re-select their coverage category on an annual basis or require vessel owners to make a one-time decision that applies in all future years.

Through this action, the Council is seeking to provide relief to trawl catcher vessels that have voluntarily paid for both partial and full coverage in order to achieve better bycatch management while complying with existing Observer Program regulations. The Council also seeks to maintain the efficacy of the Observer Program, and avoid limiting regulatory flexibility for other vessels that might request full coverage in the future.

List of Acronyms and Abbreviations

'	feet
AAC	Alaska Administrative Code
ABC	acceptable biological catch
ADF&G	Alaska Department of Fish and Game
AEQ	adult equivalent
AFA	American Fisheries Act
AFSC	Alaska Fisheries Science Center
AGDB	Alaska Groundfish Data Bank
AKFIN	Alaska Fisheries Information Network
ANILCA	Alaska National Interest Lands Conservation Act
BOF	Board of Fish
BSAI	Bering Sea and Aleutian Islands
CAS	Catch Accounting System
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
COAR	Commercial Operators Annual Report
Council	North Pacific Fishery Management Council
CP	catcher/processor
CV	catcher vessel
CWT	coded-wire tag
DPS	distinct population segment
E	East
E.O.	Executive Order
EA	Environmental Assessment
EEZ	Exclusive Economic Zone
EFH	essential fish habitat
EIS	Environmental Impact Statement
ESA	Endangered Species Act
ESU	endangered species unit
FMA	Fisheries Monitoring and Analysis
FMP	fishery management plan
FONSI	Finding of No Significant Impact
FR	<i>Federal Register</i>
FRFA	Final Regulatory Flexibility Analysis
ft	foot or feet
GHL	guideline harvest level
GOA	Gulf of Alaska
ID	Identification
IRFA	Initial Regulatory Flexibility Analysis
IPA	Incentive Plan Agreement
IQF	individually quick frozen
JAM	jeopardy or adverse modification
lb(s)	pound(s)

LEI	long-term effect index
LLP	license limitation program
LOA	length overall
m	meter or meters
Magnuson-Stevens Act	Magnuson-Stevens Fishery Conservation and Management Act
MMPA	Marine Mammal Protection Act
MSST	minimum stock size threshold
mt	metric ton
NAO	NOAA Administrative Order
NEPA	National Environmental Policy Act
NMFS	National Marine Fishery Service
NOAA	National Oceanographic and Atmospheric Administration
NPAFC	North Pacific Anadromous Fish Commission
NPFMC	North Pacific Fishery Management Council
NPPSD	North Pacific Pelagic Seabird Database
Observer Program	North Pacific Groundfish Observer Program
OEG	optimal escapement goal
OMB	Office of Management and Budget
PBR	potential biological removal
PSC	prohibited species catch
PPA	Preliminary preferred alternative
PRA	Paperwork Reduction Act
PSEIS	Programmatic Supplemental Environmental Impact Statement
PWS	Prince William Sound
RFA	Regulatory Flexibility Act
RFFA	reasonably foreseeable future action
RIR	Regulatory Impact Review
RPA	reasonable and prudent alternative
RSW	refrigerated seawater
SAFE	Stock Assessment and Fishery Evaluation
SAR	stock assessment report
SBA	Small Business Act
Secretary	Secretary of Commerce
SW	southwest
TAC	total allowable catch
U.S.	United States
USCG	United States Coast Guard
USFWS	United States Fish and Wildlife Service
VMS	vessel monitoring system
W	West

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Executive Summary

This document is a Regulatory Impact Review/Initial Regulatory Flexibility Analysis (RIR/IRFA). The RIR examines the potential impacts of mandatory or voluntary changes to observer coverage requirements on BSAI catcher vessel owners and operators, fishery managers, observer providers, and the NMFS Observer Program. The proposed action would change the observer coverage requirements for catcher vessels (CV) that use trawl gear in Bering Sea and Aleutian Islands (BSAI) limited access fisheries. The alternatives under consideration vary in the number of vessels that would be affected by the regulatory change, whether the shift in coverage requirements is mandatory or optional, and, if optional, whether or not vessel owners could determine their level of coverage on a year-to-year basis. In the most general of terms, the Council's action alternatives are intended to provide financial relief to trawl vessel owners who are currently paying into both the partial and full observer coverage categories, while considering the extent to which amended observer regulations would impact the ability of NMFS to collect sound management data from the fisheries that remain under the partial coverage category. The proposed action is responsive to stakeholders who testified to the Council that their vessels need full observer coverage in order to comply with the conservation goals set forth in their AFA Intercooperative Agreements. Those agreements demand vessel-level accountability in the utilization of a cooperative's halibut PSC allocation. The stakeholders testified that individual accountability requires full observer coverage of any fishing activity during which halibut PSC might be encountered, including that which occurs outside of the AFA directed pollock fishery.

Under the restructured Observer Program, all vessels and processors in the groundfish and halibut fisheries off Alaska are placed 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 (ADP) that is developed in consultation with the Council. The deployment of observers in the partial coverage category is funded through a system of fees based on the ex-vessel value of retained groundfish and halibut in fisheries that are not in the full coverage category. At the time of the Observer Program restructuring, the Council and NMFS determined that partial coverage was sufficient for BSAI trawl CVs that are operating outside of the AFA directed pollock fishery. Through this action, the Council is considering alternatives that would allow CVs that currently operate in the partial observer coverage category for some or all of their fishing activity to be placed in the full observer coverage category. Depending on the selected alternative, the spectrum of affected vessels could be limited to trawl CVs that are affiliated with an American Fisheries Act (AFA) pollock cooperative, or could include all CVs that deploy trawl gear in the BSAI management area.

Purpose and Need

The Council adopted the following purpose and need statement at its June 2015 meeting:

Since 2013, NMFS has allowed the owners of BSAI trawl catcher vessels in the partial observer coverage category to volunteer on an annual basis for full observer coverage during all times that they participate in BSAI fisheries. Individuals who have made this choice thus far are owners of AFA catcher vessels that participate in the BSAI limited access Pacific cod trawl fishery. They choose full

coverage to better manage Pacific halibut prohibited species catch (PSC) limits within their cooperatives. Current regulations do not authorize voluntary selection of full coverage. Vessel owners who choose full coverage must pay both the ex-vessel based partial coverage observer fee and a daily full coverage observer rate. The Council recognizes that this is an additional financial burden to vessel owners who voluntarily choose full coverage. An amendment to the regulations implementing the North Pacific Groundfish and Halibut Observer Program may be warranted. The Council seeks to balance the observer costs for BSAI trawl catcher vessel owners with NMFS's ability to monitor and enforce compliance with observer coverage requirements and the essential functioning of the Observer Program's partial coverage category.

Alternatives

The Council adopted the following alternatives for analysis at its June 2015 meeting:

Alternative 1. Status Quo

Alternative 2. Require 100% observer coverage for AFA trawl CVs for all fishing in the BSAI (i.e., move these vessels into the full coverage category in regulation).

Alternative 3. Allow trawl CVs currently assigned to partial observer coverage to voluntarily choose 100% observer coverage for all fishing in the BSAI.

Option 1. Allow AFA trawl CVs currently assigned to partial observer coverage to voluntarily choose 100% observer coverage for all fishing in the BSAI.

Suboptions apply to Alt. 3, or Alt. 3, Option 1:

Suboption 1. Vessels must opt-in to full (100%) coverage by July 1 of the previous year.

Suboption 2. One-time selection by vessels (applies in all future years).

If the Council recommends Alternative 3 as its preferred alternative, it would presumably need to identify one (and only one) of the suboptions. Selecting neither would not establish a process for recategorizing affected CVs. If the Council selects Suboption 2, it should clarify whether all directly regulated vessels must make this one-time decision by a single specified date – prior to the first year under the regulations that would implement Alternative 3 – or if a vessel owner can wait to make this decision in any future year, but may only make it once.

The observer requirements pertaining to vessels that deliver unsorted codends to motherships (or CPs acting as motherships) would not be altered under any of the alternatives. Vessels delivering to motherships are not required to carry an observer, since the catch is being sorted after it is transferred to a mothership where full coverage observers would be stationed.

Regulatory Impact Review

Alternative 1 (No Action)

Management Considerations

Under NMFS's current policy that allows BSAI CV owners to annually volunteer for full coverage, a request must be submitted to the agency by December 1 of the year prior to the year in which the choice applies. December 1 provides the minimum amount of time in which NMFS could make the necessary revisions to the CAS and ODDS. Because this allowance to voluntarily select full coverage has been done

through a policy, NMFS cannot impose or enforce any deadline. NMFS projects effort in the partial coverage fishery for the upcoming year based on historical effort and adjustments for known changes to the number of vessels in a particular observer selection stratum. The list of vessels that volunteered for full coverage has differed in each year since 2013, so the current practice of removing vessels that volunteered in the previous year from the effort projection database is not ideal.

Regardless of whether the Council recommends the No Action alternative or one of the action alternatives, NMFS staff has noted that some changes in catch estimation procedures are necessary to remove sources of potential data bias. In short, the agency plans to separate the partial and full coverage strata of observer information in the CAS.

No changes to observer data entry equipment and transmission requirements are proposed under any of the alternatives. Under the status quo, observers deployed on vessels in the partial coverage category are equipped by the observer provider with a computer that has the NMFS-approved data entry software (ATLAS) installed on it, and observers transmit data to NMFS from these computers at the completion of a trip by utilizing electronic communications available in the port. Observers deployed in the full coverage category may or may not have access to a computer provided by the vessel owner, and may transmit data electronically to NMFS from the vessel or processing plant, or they may submit data by fax. Vessels of $\geq 125'$ LOA must provide both a computer with ATLAS and a means of at-sea data transmission. AFA-affiliated CVs of $< 125'$ LOA must provide a computer with ATLAS, but the provision of at-sea data transmission is done on a voluntary basis. In general, moving vessels from the partial coverage category to the full coverage category could increase the amount of observer data that is submitted to NMFS by fax, thereby increasing NMFS's administrative costs and slowing access to observer data. However, some of the CVs that would be affected by the action alternatives have been in the full coverage category under NMFS's policy since 2013, which means that some impacts described in this section are already occurring under the status quo.

As long as NMFS continues the policy of allowing vessel owners to request full coverage on an annual basis, the agency might be concerned about two potential impacts on the Observer Program: (1) the amount of data that must be received by fax and hand-keyed, which takes longer to enter the management system and can be more costly; and (2) the extended length of time that it takes to receive data that cannot be transmitted while at sea. The analysts do not have empirical information that would help to determine the likelihood of vessel owners supplying computers and at-sea transmission capabilities to full coverage observers. However, it seems reasonable that AFA-eligible vessels would not only have this equipment onboard, but would also have a private interest in supplying inseason managers with timely and accurate data. There is currently no restriction on the number and type (AFA vs. non-AFA) of CVs that can voluntarily request full coverage. Therefore, in the limit, the impacts on observer data processes would be greatest if all CVs less than 125' LOA began volunteering for full coverage, and the greatest impact would result from non-AFA vessels electing full coverage. Having said all that, the No Action alternative does not directly increase the number of CVs that would operate under full coverage in future years. NMFS's current policy merely allows for an annual voluntary choice. Absent any major changes in regulations that govern AFA cooperatives and their halibut PSC limits, the analysts consider it probable that the number of CVs volunteering for full coverage will remain at, or slightly below, current levels.

Impacts on Vessel Owners and Fishery Participants

If the Council selects Alternative 1, vessel owners who continue to volunteer for full coverage will continue to be liable for both full coverage and partial coverage observer costs. Relative to the action alternatives, the continuing liability for partial coverage fees represents an impact of the No Action alternative. The BSAI CVs that volunteered for full coverage in 2013 and 2014 were also assessed partial coverage fee liabilities of an estimated \$313,000 over the two years (Table 10); half of that total liability would have been paid by the processors. A simple vessel average of the estimated total fee liabilities paid in those years – divided by two to account for the processor paying half of the fee – suggests that the average volunteer CV paid around \$2,300 to the partial coverage program in 2013 (33 active volunteer CVs) and around \$2,650 in 2014 (30 active volunteer CVs). Obviously, few vessels would have paid precisely the average, since partial coverage fee liability is a function of individual landings.

Hired skippers and vessel crew are typically compensated on a share-based system, determined by the vessel's gross revenue, with operating costs deducted "off the top". It is possible to imagine that, on the margin, a vessel owner might eschew voluntary full coverage because of the net income reduction that paying two types of observer fees would cause.

While Alternative 1 would continue to impose additional payments on volunteer vessels, relative to the action alternatives, the status quo provides the fleet with the maximum possible amount of flexibility in choosing their observer coverage for the upcoming. Vessel owners might benefit from this flexibility, as they might use the time between the proposed decision deadline under Alternative 3 (July 1) and the existing deadline (December 1) to develop a more complete fishing plan. For example, vessel owners might not know how much they plan to fish in the BSAI non-pollock trawl fisheries, or whether they plan to deliver primarily to shoreside plants or motherships. An AFA-affiliated vessel that plans to spend more time in limited access (partial coverage) fisheries and delivering shoreside might have a greater incentive to hedge against extrapolated halibut PSC rates from the rest of the partial coverage fleet.

Impacts on the Observer Program

From a fiscal perspective, the No Action alternative is not likely to adversely affect the Observer Program. The activity of vessels that volunteered for full coverage in 2013 and 2014 generated an estimated \$313,000 in partial coverage fees over the two years, and no partial coverage deployments were made in that subsection of the fleet. In each of those two years, the volunteer CVs' activity represented roughly 46% of total BSAI non-pollock CV trawl effort in terms of fishing days, or 1,128 out of 2,476 days in 2013, and 1,178 out of 2,542 days in 2014. Had these vessels been fishing under the large vessel trip-selection stratum of the partial coverage category, which had a trip selection rate of 24%, the partial coverage program would have had to cover in the neighborhood of 550 additional days with no commensurate increase in funding. Since the NMFS policy that allows vessels to volunteer for full coverage is already in effect, Alternative 1 would not directly reduce or increase the number of partial coverage observer-days needed to monitor the BSAI non-pollock trawl fisheries, relative to the status quo.

Action Alternatives (Alternatives 2 and 3)

Management Considerations

Alternatives 2 and 3 would move a set of trawl CVs fishing in the BSAI into the full coverage category: all AFA trawl CVs under Alternative 2, or any trawl CV that chooses full coverage under Alternative 3. Alternative 3 Option 1 *could* result in all BSAI trawl CVs moving to partial coverage, but that outcome is unlikely based on past records of volunteering for full coverage. These alternatives would likely mean that, in any case, some vessels will remain in partial coverage after amended regulations are implemented, including non-AFA trawl CVs under Alternative 2, and any vessel that did not choose full coverage under Alternative 3. These alternatives would result in both full and partial coverage trawl CVs participating in the same fisheries. Moving vessels into full coverage has the potential to improve catch and bycatch estimates by increasing the amount of observer data; however, estimation processes must delineate between full and partial coverage in order to avoid a potential bias. Potential bias in the estimation method needs to be addressed under any selected alternative, including the No Action alternative. Therefore, under any selected alternative, NMFS will modify the stratification methods in CAS to match the definitions of full and partial coverage categories for BSAI CVs that emerge from this action (ongoing modifications may be required under the suboptions to Alternative 3, which might allow vessels to select or re-select their coverage category in future years). The result of the programming changes in CAS will mean that estimates of PSC are generated using data that are specific to full coverage or partial coverage vessels.

Regarding administrative processes, Alternative 2 would place all AFA trawl CVs in the full observer coverage category by regulation. No additional administrative processes, deadlines, or recordkeeping and reporting requirements would be necessary under this alternative, beyond those that already exist for full coverage vessels. In short, Alternative 2 would simplify the ADP process by removing uncertainty in the annual composition of the observer coverage strata.

The suboptions available under Alternative 3, one of which must be selected, will affect administrative processes and deadlines. If Suboption 1 is selected, both Alternative 3 and the Option to Alternative 3 would require regulations to govern the annual process of vessel owners notifying NMFS that they wish to be placed in full coverage in the upcoming year. The main component of these regulations would be the specification of a deadline for notification to NMFS. Annual modifications to the CAS and ODDS would be required in order to reflect the correct assignment of observer coverage category for any vessel owner choosing to be in full coverage. Suboption 1 would establish a notification deadline of July 1 in the year prior to the year in which the annual choice applies. NMFS and the OAC had recommended a July 1 deadline because it would allow the agency to know which vessels will be in the partial coverage category in time to incorporate that information into the ADP for the upcoming year. The analysis conducted to prepare the draft ADP uses the projected budget and projected fishing effort (number of fishing trips) by vessels to recommend a selection probability that will accomplish optimal use of the available budget. An accurate projection of expected fishing effort by vessels in the partial coverage category is an important element in the determination of the appropriate selection probability. If actual fishing effort is more than the amount that was projected, NMFS could run out of money to deploy observers before the end of a year. If actual fishing effort is less than projected, the Observer Program would not achieve the level of observer coverage that could have been achieved with the available budget. Information about which vessels should be removed or added to the fishing effort projection database must be available to NMFS

by July 1 of each year to incorporate this information into the ADP process. In addition to the impact on the ADP process, the timing of the notification deadline has a relatively minor effect on administrative costs for NMFS. Both the CAS and ODDS would need to be updated each year to reflect the list of vessels volunteering to be in full coverage, and the CAS must be reviewed to ensure that the estimation methods match the stratum definition. NMFS is already incurring these relatively minimal administrative costs under the existing policy, and would not recommend an earlier deadline solely on this basis.

If the Council wishes to pursue Suboption 2, it should specify whether there would be any exceptions to the one-time choice of coverage category. One possible exception, or opportunity to reverse a one-time choice that has already been made, could be if ownership of the vessel changed hands. If no exceptions are allowed, the selection of partial or full coverage would become something akin to an “endorsement” that is associated with the vessel.

Impact on Full Coverage Providers

The demand for full coverage observer-days would likely increase under Alternative 2, and could increase under Alternative 3. The need to service additional full coverage vessels in the BSAI represents a business opportunity for these private companies. The greatest challenge associated with increasing the pool of qualified observers would fall to NMFS in training new observers and debriefing additional trips. Some full coverage demand might be filled by individuals who were previously employed by the partial coverage provider.

Under Alternative 2, the analysts estimate that mandatorily moving all AFA-eligible CVs to full coverage could require as many as 14 additional human observers in a given year, though likely fewer because individuals could be shifted between vessels. Not all of these additional observers would necessarily be new hires, as full coverage providers might have latent staff capacity from fisheries that do not coincide with the BSAI limited access Pacific cod trawl season. In regard to demand for full coverage observers, Alternative 3 Option 1 mainly differs from Alternative 2 in that the shifting of AFA-eligible vessels from partial to full coverage is done on a voluntary basis. If all AFA CVs chose to be in full coverage, the maximum anticipated effect would be the same as what is expected under Alternative 2. The increase in demand for observers under Alternative 3 (no option selected) can be estimated based on the historical activity of the 18 non-AFA CVs that were active in BSAI non-pollock trawl fisheries. The estimated increase attributed to those 18 vessels would then be added to what might occur under Alternative 2 and Alternative 3 Option 1.

Impact on Fishery Participants

This analysis finds that a given vessel’s annual cost of being in full coverage will be greater than the cost of their annual partial coverage fee liability. NMFS estimates the daily cost of carrying a full coverage observer to be either \$331 per day (trawl CVs, not specific to management area or fishery), or \$371 per day (includes variable costs such as observer travel, but is not particular to any vessel or processor sector). The annual fee liability for partial coverage vessel is 0.625% of gross ex-vessel receipts.

Under Alternative 2, vessels that were voluntarily carrying full coverage observers would continue to pay a daily rate for full coverage, but would be relieved of the need to continue paying the partial coverage fee liability based on their landings. With 33 volunteer AFA CVs active in 2013, and 30 volunteers active in

2014, the average partial coverage savings per volunteer vessel under Alternative 2 would have been roughly \$2,300 and \$2,650 in those years, respectively. Volunteer AFA CVs would continue to pay the daily cost of full coverage, as they do currently. Using the high end of NMFS's estimated daily cost of full coverage (\$371), the volunteer CVs would have paid a total of around \$418,000 and \$437,000 for observers in 2013 and 2014. The average payment per vessel would have been around \$12,700 in 2013 and \$14,500 in 2014. AFA CVs that did not volunteer for full coverage would pay the daily rate of \$371 *instead of* the ex-vessel-based liability. Their total partial coverage liability would have been around \$11,000 in 2013 and \$30,300 in 2014. Had those vessels been in full coverage, their total observer costs would have been roughly \$48,000 in 2013 and \$132,000 in 2014. In aggregate, moving these vessels from partial to full coverage would have increased their observer costs from 0.625% of ex-vessel revenue to 2.72% of ex-vessel revenue.

Under Alternative 3 Option 1, if all AFA CVs *chose* to be in full coverage, then the maximum anticipated cost impact would be the same as described above for Alternative 2. Selecting Alternative 3 with no option would allow any vessel, AFA-affiliated or not, to choose full coverage for all of its BSAI trawl activity. Since 2010, 18 non-AFA CVs have participated in the BSAI non-pollock trawl fisheries. Between five and 12 of these vessels were active in each year, logging between 212 and 435 days per year in aggregate, and generating between \$1.6 million and \$4.2 million in total ex-vessel revenue per year. The median non-AFA vessel would have been liable for roughly \$1,300 in partial coverage fees, but would have paid over \$11,000 in observer costs at a full coverage rate of \$371 per day. As a percentage of ex-vessel revenues, the median vessel's full coverage bill would be equivalent to 5.2% of ex-vessel revenue. Given that Alternative 3 presents a voluntary choice, the action would not necessarily impose a direct cost on any fishery participants. In fact, if paying for full coverage is not economically viable for non-AFA vessels, which are not responsible for managing a shared cooperative halibut PSC allocation, it is possible that the only vessels that select full coverage under this alternative would be those that do so under the status quo (the AFA CV "volunteers").

Effect of Full Coverage on Fishing Behavior

Moving a vessel from partial to full coverage makes the cost of observer coverage a function of time spent out of port, rather than a function of the value of the vessel's catch. One might expect profit-seeking vessel operators in full coverage to maximize net revenues by minimizing trip length. A vessel operator might attempt to shorten a trip by fishing closer to port, deploying gear for more hours per day, or taking fewer short "test tows" to check for catch composition and the presence of non-target or PSC species. It is important to consider that vessel operators balance a number of important objectives when determining how to prosecute the fishery, and that operators would not act solely on the basis of maximizing net revenues.

Impacts on the Observer Program

Partial Coverage. The 2014 Observer Program Annual Report estimates the average cost to the program for placing an observer on a partial coverage vessel at \$1,067 per day. Vessels that move out of the partial coverage category would no longer remit the fee payments that are used to purchase observer days in the following year.

The analysts estimated that the activity of AFA volunteer CVs generated just shy of \$160,000 in fee liabilities per year in 2013 and 2014. Based on the daily cost listed above, those fees would have funded the purchase of roughly 150 observer days per year. Since those volunteer vessels carried full coverage observers, those 150 days were available to be deployed across other sectors of the partial coverage category. In 2013 and 2014, NMFS spent roughly \$11.5 million in fee revenues and agency funds to purchase 10,816 observer days. That \$160,000 would have made up a relatively small portion of the Observer Programs total annual budget for purchasing observer days. Nevertheless, those funds would not be available to NMFS under Alternative 2, or under Alternative 3 if the historical volunteer vessels continue to select full coverage.

The AFA vessels that chose to fish in partial coverage during 2013 and 2014 (non-volunteers) fished for 130 days in 2013 and for 357 days in 2014. Assuming a five-day average trip length, that segment of the fleet would have made between 26 and 70 trips. Using the 2015 large vessel trip-selection rate of 24%, these vessels would have been observed on between 7 and 17 trips, which computes to 35 and 85 observer days. Based on 2013 and 2014 ex-vessel revenues, the analysts estimate that the activity of these vessels would have generated roughly \$22,000 in 2013 and \$61,000 in 2014, or enough to fund the purchase of 21 to 57 partial coverage observer days. Under Alternative 2, these funds would be removed from the partial coverage fee base. These vessels could select full coverage under Alternative 3, though this analysis does not predict that they would choose to do so. The non-AFA CVs that participate in the BSAI non-pollock trawl fisheries logged between 212 and 435 fishing days in a given year, from 2010 through 2014. Assuming a five day trip length, those vessels made between 42 and 87 trips in a year. At the 2015 selection rate of 24%, between 10 and 21 trips would have been observed, meaning that the partial coverage category would have had to supply between 50 and 105 observer days. Based on this segment of the fleet's annual ex-vessel revenues in BSAI partial coverage fisheries, the activity of these vessels would have generated \$20,000 to \$52,500 per year in fee liabilities. Those remittances could fund 19 to 49 observer days. While this analysis deems it somewhat unlikely, these amounts of effort and funds represent the estimated maximum that might be removed from the partial coverage category if the non-AFA vessels select full coverage under Alternative 3 (no option).

Full Coverage. Actions that expand the full coverage category can be expected to increase demands on Observer Program resources. The increase in demand on Observer Program resources would be a function of how many observers must be trained or briefed, and how many additional trips are being observed and debriefed as a result of the considered action. This analysis does not suggest that the action alternatives are likely to require a large number of new observers to be trained. Alternative 2 would make full coverage mandatory for the fleet of AFA-affiliated vessels that participate in BSAI non-pollock trawl fisheries; many of those vessels are already operating under full coverage, so that segment of the fleet's observer demand would remain at the status quo level. Alternative 2 would also place AFA CVs that have fished under partial coverage in the full coverage category. Overall, this analysis estimates that Alternative 2 would require up to, but likely fewer than, 14 additional full coverage observers to be deployed in BSAI limited access fisheries. That high-end estimate of 14 would represent only a 3.7% increase relative to the 376 individual full coverage observers that were deployed in 2014. Demand for additional full coverage observers would not increase as much if the vessels that are required to fish in full coverage alter their fishing plans to make more mothership deliveries.

The increase in observer-demand under Alternative 3 largely depends on non-AFA vessels' desire to participate in the more costly full coverage category. It is possible that observer demand could remain at status quo levels if only the current set of AFA volunteer CVs selects full coverage. In the unlikely event that most of the active non-AFA vessels select full coverage, this analysis estimates the maximum likely number of additional full coverage observers required under Alternative 3 to be in the range of five to 10, which would be a 2.7% increase relative to the number of observers deployed in 2014.

A rough estimate of the increase in the number of full coverage trips that would need to be debriefed can be derived from the estimated increase in fishing days that have occurred in partial coverage under the status quo, but would have been in full coverage under one of the action alternatives. The AFA non-volunteer vessels that would be moved into full coverage under Alternative 2 fished in partial coverage for 130 days in 2013 and for 357 days in 2014. Based on those historical years and assuming a five-day average trip length, Alternative 2 might result in between 26 and 70 additional full coverage trips. Under Alternative 3 Option 1, the amount of activity in the full coverage category would likely be similar to, or slightly below, the status quo level. Under Alternative 3 (no option) – granting the generous assumption that most or all of the non-AFA vessels in the BSAI non-pollock trawl fisheries select full coverage, and assuming that the non-volunteer AFA vessels do not – there would be an additional 212 to 435 days fished under full coverage. Using the 5-day trip measure, that additional effort would equate to between 42 and 87 additional full coverage trips.

Summary of Net Benefits to the Nation

Under Alternative 1, the structure of the Observer Program would remain unchanged and partial coverage BSAI trawl CVs could continue to request full observer coverage, provided that they continue to comply with partial coverage regulations and pay the ex-vessel fee liability. The Observer Program is currently providing adequate scientific and management data, and its performance is frequently reviewed by the Council. NMFS staff has stated that the current system of accommodating full coverage volunteer vessels is not overly burdensome. The existing NMFS policy of allowing vessels to volunteer for full coverage does not induce any vessel owner to pay for a higher level of observer coverage than was deemed necessary under the restructured Observer Program. The primary group that is adversely affected under Alternative 1 is the set of AFA-affiliated CVs that originally petitioned the Council and NMFS for permission to carry full observers, pay their daily rate, and continue to pay into the partial coverage fee base. This request stemmed from the objective of better managing halibut PSC allocations, which fits with National Standard 9 and is a regional priority.

Of the proposed alternatives, Alternative 2 would increase the total amount of observer coverage in BSAI non-pollock trawl fisheries by the greatest amount. Alternative 2 would also alleviate a duplicative cost burden on the set of AFA CVs that continue to volunteer for full coverage. From an administrative perspective, Alternative 2 provides the simplest path to implementation. However, Alternative 2 would require a set of 15 AFA CVs that have participated in the fishery since 2010 but have never volunteered for full coverage to take on significant additional costs that might alter their manner of fishing. When facing a directive to fish in the full coverage category, these non-volunteer vessels might respond by fishing less (to reduce daily observer costs), or by altering their fishing plans to deliver more fish to the mothership sector. One must assume that when fishing plans change as the result of a regulatory action, vessels are not acting in the most efficient possible manner. Moreover, while responsive to the Council's

purpose and need statement, restricting the ability to volunteer for full coverage only to AFA-eligible vessels might unnecessarily restrict the Council's ability to accommodate unforeseeable full coverage requests from non-AFA vessels in the future. That said, the non-AFA portion of the BSAI non-pollock trawl fleet has demonstrated no interest in participating in the full coverage category since that option was made available in 2013.

Alternative 3, with Option 1, would have a similar general effect to Alternative 2, except that AFA CVs that have not demonstrated an interest in paying for full coverage would not be required to do so. Moreover, since 2013, the number of AFA CVs that have volunteered for full coverage in each year has declined. This alternative would allow those vessel owners who have determined that partial coverage better suits their fishing plan to avoid the higher cost of full coverage. Under this alternative, the AFA CV owners who most benefit from full coverage would be permitted to continue that practice. Option 1 to Alternative 3 restricts the voluntary choice of full coverage to AFA-eligible vessels, thus excluding non-AFA vessels in the future. This particular option would reduce flexibility in the case of an unexpected contingency. Alternative 3, without Option 1, would allow any BSAI trawl CV to select full coverage. Relative to the two action alternatives described above, this alternative is the most inclusive and might minimize management time and costs in the case that future requests for full coverage emerge from the non-AFA fleet. Presuming that higher levels of observer coverage are better for the resource and for management, Alternative 3 (in all its forms) provides less observer data than Alternative 2.

The suboptions associated with Alternative 3 trade off flexibility for vessel owners to tailor their coverage obligations to their annual fishing plan (Suboption 1) for management certainty and simplicity (Suboption 2). The analysts assume that the July 1 decision date specified in Suboption 1 removes any risk that accommodating annual flexibility would impair the agency's ability to craft a viable Annual Deployment Plan for the upcoming year.

Because none of the alternatives jeopardize the integrity of the Observer Program's essential functions, one might view the most inclusive alternative with the most flexibility (Alternative 3, Suboption 1) as the one that maximizes net benefits to the nation. However, breadth of inclusion and flexibility imposes additional administrative costs and reduces predictability in multi-year planning by Observer Program staff.

1 Introduction

This document is a Regulatory Impact Review/Initial Regulatory Flexibility Analysis (RIR/IRFA). An RIR/IRFA provides assessments of the economic benefits and costs of the action alternatives, as well as their distribution (the RIR), and the impacts of the action on directly regulated small entities (the IRFA). The RIR examines the potential impacts of mandatory or voluntary changes to observer coverage requirements on BSAI catcher vessel owners and operators, fishery managers, observer providers, and the NMFS Observer Program. The RIR is included in Section 3. The IRFA is included in Section 4. This RIR/IRFA addresses the statutory requirements of the Magnuson Stevens Fishery Conservation and Management Act (MSA), the National Environmental Policy Act, Presidential Executive Order 12866¹, and the Regulatory Flexibility Act. An RIR/IRFA is a standard document produced by the North Pacific Fishery Management Council (Council) and the National Marine Fisheries Service (NMFS) Alaska Region to provide the analytical background for decision-making.

The proposed action would change the observer coverage requirements for catcher vessels (CV) that use trawl gear in Bering Sea and Aleutian Islands (BSAI) limited access fisheries. The alternatives under consideration vary in the number of vessels that would be affected by the regulatory change, whether the shift in coverage requirements is mandatory or optional, and, if optional, whether or not vessel owners could determine their level of coverage on a year-to-year basis. In the most general of terms, the Council's action alternatives are intended to provide financial relief to trawl vessel owners who are currently paying into both the partial and full observer coverage categories, while considering the extent to which amended observer regulations would impact the ability of NMFS to collect sound management data from the fisheries that remain under the partial coverage category. The history, purpose, and context of this action are further described in Sections 1.1 and 1.2, below.

The proposed action is a minor change to a previously analyzed and approved action. Pursuant changes in regulations would have no effect, individually or cumulatively, on the human environment (as defined in NAO 216-6). The potential effects of this action are economic in nature. In other words, based on available information, this action would not affect the human environment in any way beyond what was examined in the Environmental Assessment (EA) prepared for the analysis of BSAI/Gulf of Alaska (GOA) Groundfish Amendment 86/76.² As a result, the analysts have preliminarily determined that this action could qualify for a Categorical Exclusion from further review under the National Environmental Policy Act (NEPA). When a Categorical Exclusion is granted, the preparation of an EA is not required.

The alternatives analyzed for this action should not require an amendment to the BSAI Groundfish Fishery Management Plan (FMP). Amendments to FMP Section 3.2.4.1 (Observer Program) that are proposed under Amendment 109 to the FMP (CDQ small catcher vessel fishery) would revise the FMP to state that “[G]enerally, 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

¹ Executive Order 12866 requires the preparation of a Regulatory Impact Review (RIR) to assess the social and economic costs and benefits of available regulatory alternatives, in order to determine whether a proposed regulatory action is economically significant as defined by that order.

² The final rule for BSAI Groundfish FMP Amendment 86/GOA Groundfish FMP Amendment 76 was published in the Federal Register on November 21, 2012 (77 FR 70062). Amended regulations were implemented in 2013.

motherships, and catcher vessels when participating in a catch share program with a transferable PSC limit, generally comprise the $\geq 100\%$ coverage category, *with some exceptions, as detailed in regulation*.³ If this amendment is approved, alternatives to place BSAI trawl CVs in full coverage (Alternative 2) or allow owners of BSAI trawl CVs to voluntarily choose to be in full coverage (Alternative 3) could be implemented as exceptions to the general observer coverage category assignments described in the FMP. However, the Council may wish to recommend an FMP amendment if it selects Alternative 2 as its preferred alternative, because the mandatory placement of AFA trawl CVs in full coverage for fisheries that do not involve transferable PSC limits (BSAI trawl CV Pacific cod, or any other BSAI trawl CV limited access sector fisheries) could be considered a significant enough exception to the general requirements to warrant a specific mention in the FMP.

1.1 History of this Action

This document analyzes proposed modifications to regulations that were implemented in 2013, as part of the North Pacific Groundfish and Halibut Observer Program (Observer Program) restructuring. The Observer Program provides the regulatory framework for NMFS-certified observers to obtain information necessary for the conservation and management of the BSAI and GOA groundfish and halibut fisheries. Observers collect data on total catch and interactions with protected species, as well as biological samples. Managers use observer data to monitor quotas, manage groundfish and prohibited species catch (PSC), and document and mitigate fishery interactions with protected resources. Scientists use observer-collected data for stock assessments, genetic stock identification, and marine ecosystem research.

Under the restructured Observer Program, all vessels and processors in the groundfish and halibut fisheries off Alaska are placed 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 (ADP) that is developed in consultation with the Council. The deployment of observers in the partial coverage category is funded through a system of fees based on the ex-vessel value of retained groundfish and halibut in fisheries that are not in the full coverage category. Further information on the Observer Program, vessel categories, and the relevant fees is included in Section 3.5.1 of this document. At the time of the Observer Program restructuring, 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. It was determined that partial coverage was sufficient for BSAI trawl CVs that are operating outside of the American Fisheries Act (AFA) directed pollock fishery.

Through this action, the Council is considering alternatives that would allow CVs that currently operate in the partial observer coverage category for some or all of their fishing activity to be placed in the full observer coverage category. Depending on the selected alternative, the spectrum of affected vessels could be limited to trawl CVs that are affiliated with an AFA pollock cooperative, or could include all CVs that deploy trawl gear in the BSAI management area.

³ The relevant new text that would be added to section 3.2.4.1 under BSAI Amendment 109 is noted in italics.

The proposed action is responsive to stakeholders who testified to the Council that their vessels need full (100 percent) observer coverage in order to comply with the conservation goals set forth in their AFA Intercooperative Agreements. Those agreements demand vessel-level accountability in the utilization of a cooperative's halibut PSC allocation. The stakeholders testified that individual accountability requires full observer coverage of any fishing activity during which halibut PSC might be encountered, including that which occurs outside of the AFA directed pollock fishery. NMFS estimates the halibut PSC for unobserved trips within the partial coverage category based on PSC rates (halibut per groundfish, by weight) that are observed on vessels of a similar class operating in a similar time and area. The halibut PSC attributed to an unobserved vessel could, conceivably, be higher or lower than what was actually brought onboard and discarded. Some AFA vessel operators, whose estimated halibut PSC from the limited access Pacific cod fishery is attributed to their cooperative, have demonstrated a willingness to take on extra observer costs in order to insulate their operation from the fishing outcomes of other vessels in the partial coverage category.

As part of the 2012 Federal rulemaking process, a stakeholder submitted a written public comment to NMFS stating that AFA-eligible CVs fishing in the Bering Sea should be allowed to select annually whether to participate in the full coverage category for all of their groundfish fisheries. The commenter stated that AFA vessels targeting Pacific cod with trawl gear should have fallen within the Council's intent for full coverage, due to their participation in cooperative agreements that allocate both Pacific cod and halibut PSC on an individual vessel basis⁴. NMFS's written response stated that CVs are placed in full coverage when fishing under a catch share program that has transferable PSC limits, but acknowledged that the restructured Observer Program analysis did not address an allowance for voluntary participation in the full coverage category. NMFS recommended that any such provision be made through the regulatory amendment process. NMFS highlighted the need to analyze the assignment of vessels to a particular coverage category not only in terms of the economic impacts on a vessel owner, but also in terms of impacts on the fee base for the partial coverage category, and on the contract that NMFS has established for observer deployment.

Since 2013, NMFS policy has allowed the owners of vessels that are affiliated with an AFA cooperative to voluntarily contract with a full coverage observer provider during non-AFA fishing in the BSAI area. Because trawl CVs fall under the partial observer coverage category when fishing for non-pollock species, the vessel owners who volunteer for full coverage pay not only the daily full coverage rate, but also the ex-vessel-based fee liability that funds observer deployment in the partial coverage fisheries. As reflected in its problem statement, the Council is seeking to alleviate the financial burden on vessels that elect to pay for higher rates of observer coverage, and to provide regulatory stability as it concerns future observer coverage expenditures. At the same time, the Council is weighing NMFS's ability to maintain a level of observer coverage that provides sound data quality in the fisheries that would remain under partial coverage.

The Council received a NMFS discussion paper in February 2014⁵ that scoped five different proposals for Council actions to amend the Observer Program. At that meeting, the Council prioritized this action to move forward for analysis. At its June 2015 meeting, the Council received a staff discussion paper that

⁴ Federal Register, Vol. 77, No. 225, p.70076 (Nov. 21, 2012).

⁵ <http://tinyurl.com/observerregs0214> (refer to pp. 12-14).

highlighted key issues for fishermen, NMFS, and the Observer Program⁶. The paper included potential language for a purpose and need statement that captured the Council's intent for the action, as it had been articulated in previous public meetings. The paper also proposed a structure for a range of alternatives for analysis that could be broadened or narrowed by the Council. The Observer Advisory Committee (OAC) reviewed this discussion paper at its May 2015 meeting, and provided the Council with its feedback on the range of alternatives through meeting minutes and a staff presentation to the Council at the June 2015 meeting⁷.

1.2 Purpose and Need

The Council adopted the following purpose and need statement at its June 2015 meeting:

Since 2013, NMFS has allowed the owners of BSAI trawl catcher vessels in the partial observer coverage category to volunteer on an annual basis for full observer coverage during all times that they participate in BSAI fisheries. Individuals who have made this choice thus far are owners of AFA catcher vessels that participate in the BSAI limited access Pacific cod trawl fishery. They choose full coverage to better manage Pacific halibut prohibited species catch (PSC) limits within their cooperatives. Current regulations do not authorize voluntary selection of full coverage. Vessel owners who choose full coverage must pay both the ex-vessel based partial coverage observer fee and a daily full coverage observer rate. The Council recognizes that this is an additional financial burden to vessel owners who voluntarily choose full coverage. An amendment to the regulations implementing the North Pacific Groundfish and Halibut Observer Program may be warranted. The Council seeks to balance the observer costs for BSAI trawl catcher vessel owners with NMFS's ability to monitor and enforce compliance with observer coverage requirements and the essential functioning of the Observer Program's partial coverage category.

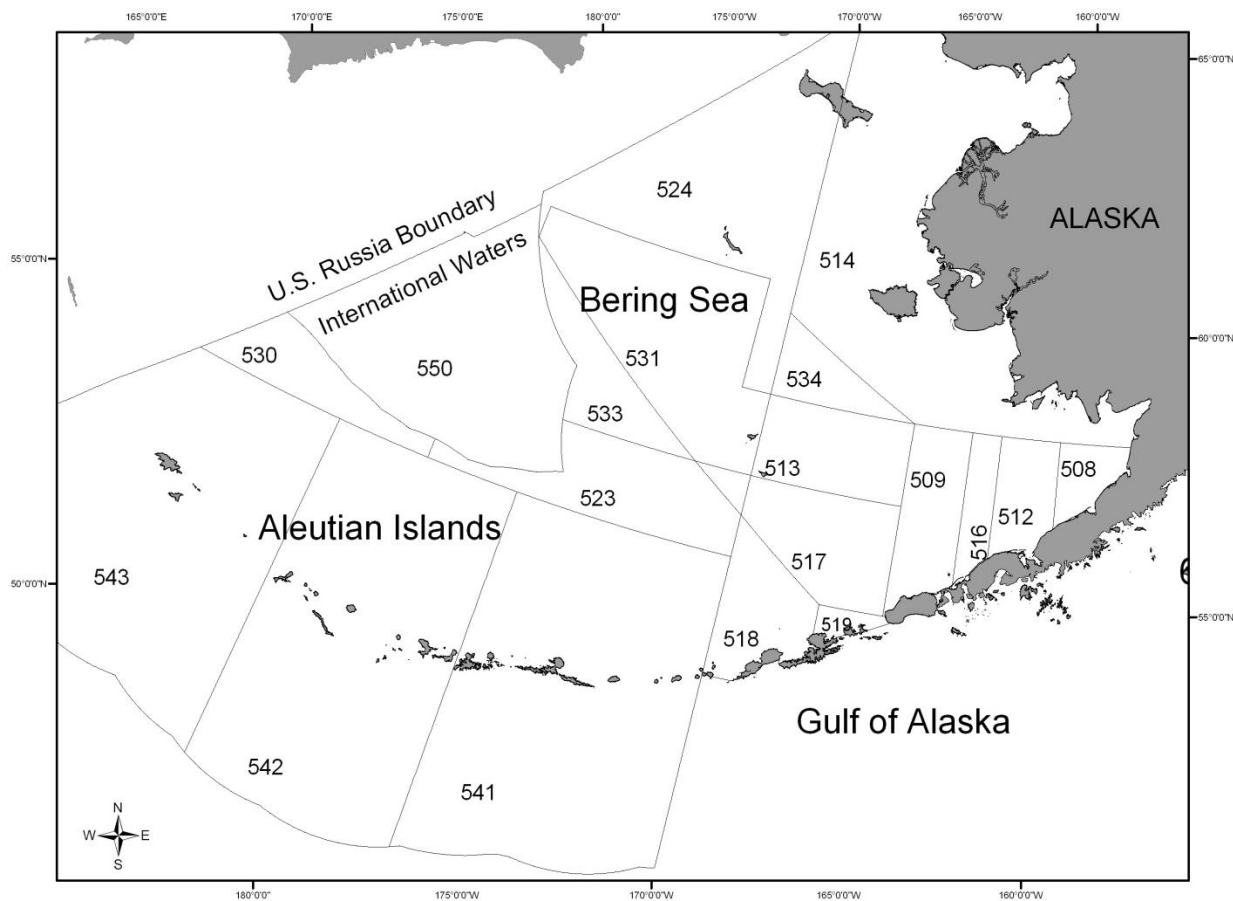
⁶ <http://npsfmc.legistar.com/gateway.aspx?M=F&ID=41b23c5d-20f7-49a0-8e63-0ed806c566c6.pdf>.

⁷ An excerpt of the OAC report that is specific to this action can be found under Agenda Item C-7, available at: <http://npsfmc.legistar.com/gateway.aspx?M=F&ID=efc67d80-fccc-419b-94cd-07b14d7d2fe1.pdf>.

1.3 Description of Action Area

This action would affect catcher vessels operating in Federal waters of the Bering Sea and Aleutian Islands management area. The potentially affected regulatory areas are shown in Figure 1.

Figure 1 Regulatory and reporting areas in the Bering Sea and Aleutian Islands management area



2 Description of Alternatives

The Council established the following alternatives for analysis at its June 2015 meeting. The Council had previously received staff discussion papers in February 2014 and June 2015 (see footnotes 5 and 6). The Observer Advisory Committee and members of the public provided the Council with comment after the presentation of each document.

The observer requirements pertaining to vessels that deliver unsorted codends to motherships (or CPs acting as motherships) would not be altered under any of the alternatives. Vessels delivering to motherships are not required to carry an observer, since the catch is being sorted after it is transferred to a mothership where full coverage observers would be stationed by regulation.

2.1 Alternative 1 – No Action

The “no action” alternative would maintain status quo Observer Program regulations. The requirements and provisions of the Observer Program, as restructured on January 1, 2013 (77 FR 70062; November 21, 2012), can be found in the proposed and final rule for BSAI Groundfish FMP Amendment 86/GOA Groundfish FMP Amendment 76 on the NMFS Alaska Region website⁸. That website also links to the analyses that were prepared for the consideration of the Observer Program restructuring, as well as deployment plans and annual reports for the first three years of implementation.

Alternative 1 would maintain the current definitions for the full coverage and partial coverage categories (50 CFR 679.51(a) and (b)). The full coverage category includes catcher/processors (CP) with limited exceptions, motherships, inshore processors when receiving or processing Bering Sea pollock, and CVs *that are participating in programs that have transferable prohibited species catch (PSC) allocations as part of a catch share program*. Vessels and processors in the full coverage category obtain observers by contracting directly with observer providers, and pay a daily rate for coverage. The partial coverage category includes CPs that meet certain criteria for full coverage exemption, shoreside or stationary floating processors that are not processing Bering Sea pollock, and CVs whose activity fits any of the following descriptions: (1) fishing halibut or sablefish IFQ (fisheries not limited by PSC caps); (2) fishing halibut CDQ, fixed gear sablefish CDQ, or groundfish CDQ with pot or jig gear (halibut discarded in these fisheries does not accrue to a CDQ group’s transferable halibut PSC allocation); or (3) fishing for groundfish in a federally managed or parallel fishery that is not part of a catch share program and does not have transferable PSC allocations. Vessels in the partial coverage category are assessed a fee equal to 1.25% of the ex-vessel value of landings that accrue against a Federal total allowable catch (TAC) for groundfish or commercial halibut quota (50 CFR 679.55)⁹. When restructuring the Observer Program, the Council noted its intent that the partial coverage observer fee liability be split 50/50 (%) between vessel owners and the processor or registered buyer that receives the landing. The processor or registered buyer is responsible for collecting the vessel owner’s portion, and remitting the full fee payment to NMFS.

⁸ <http://www.alaskafisheries.noaa.gov/sustainablefisheries/observers/>

⁹ The partial coverage observer fee is currently set in regulation at 1.25% (50 CFR 679.55(f)). Section 313 of the Magnuson-Stevens Act states that an observer fee based on a percentage of ex-vessel value could be set at a level up to, but not exceeding, 2 percent (16 USC 1862(b)(2)(E)).

Under Alternative 1, the owner or operator of a CV fishing for Pacific cod in the Federal or parallel waters in the BSAI management area would necessarily fall into the partial observer coverage category. Any such vessel owner who, with permission from NMFS, wishes to voluntarily carry an observer at all times while prosecuting that fishery would be responsible for contracting with an observer provider, paying the daily observer rate for the full coverage category, *and* the landed catch would still be subject to the 1.25% ex-vessel value-based partial coverage fee.

2.2 Alternatives 2 and 3 – Action Alternatives

The Council established the following action alternatives and options, which it will weigh against the “no action” alternative in making a final recommendation.

Alternative 2. Require 100% observer coverage for AFA trawl CVs for all fishing in the BSAI (i.e., move these vessels into the full coverage category in regulation).

Alternative 3. Allow trawl CVs currently assigned to partial observer coverage to voluntarily choose 100% observer coverage for all fishing in the BSAI.

Option 1. Allow AFA trawl CVs currently assigned to partial observer coverage to voluntarily choose 100% observer coverage for all fishing in the BSAI.

Suboptions apply to Alt 3, or Alt 3, Option 1:

Suboption 1. Vessels must opt-in to full (100%) observer coverage by July 1 of the previous year.

Suboption 2. One-time selection by vessels (applies in all future years).

As noted above, observer coverage requirements for CVs delivering unsorted codends to motherships would not be changed from the status quo under any alternative. Vessels delivering to motherships are not required to carry an observer, since the catch is being sorted after it is transferred to a mothership where full coverage observers would be stationed. Vessels delivering to a mothership are not required to register their trip in ODDS prior to departure, and are not subject to the partial coverage observer fee liability.

In these alternatives, a reference to a vessel or “CV” is substantively equivalent to referring to the vessel owner, who would be responsible for making a voluntary observer category selection, and for remitting the payments associated with observer coverage. “AFA trawl CV” is interpreted to mean any trawl CV that is eligible to participate in an AFA cooperative. AFA-eligible trawl CVs that are not enrolled in a cooperative during a given year would still be subject to the requirements that stem from this action. An AFA-eligible CV might be fishing in limited access for a year during the process of switching its affiliation from one AFA cooperative to another.

Alternatives 2 and 3 primarily differ in whether the move from partial to full coverage would be mandatory or voluntary, and in the “universe” of vessels that would be affected by this action. Alternative 2 and Alternative 3 (Option 1) would directly regulate the same group of vessels (AFA-eligible CVs), but Alternative 2 would make the shift to full coverage mandatory. Alternative 3 and Option 1 to Alternative 3 are identical in making the shift to full coverage voluntary, but selecting the alternative without the

option would expand the group of vessels eligible to change categories. The former (no option) applies to any CV named on an LLP that has a BSAI trawl endorsement, without regard to recent or historical participation in that area. The suboptions, which could apply to either version of Alternative 3, dictate the frequency and timing of a vessel owner's observer coverage category selection. If the Council recommends Alternative 3 as its preferred alternative, it would presumably need to identify one (and only one) of the suboptions. Selecting neither would not establish a process for reclassifying affected CVs. If Suboption 2 is selected, the Council should also specify a date by which CV owners must make their one-time observer coverage category selection. That decision date does not necessarily have to be July 1, which would be the requirement under Suboption 1. The specified date might be a function of when a proposed rule is implemented, and how close that is to the development of the Observer Program ADP for the following year. The rationale for proposing July 1 as a deadline for the full coverage opt-in decision is further described in Section 3.7.1.2.

2.3 Alternatives Considered but not Analyzed Further

NMFS and Council staff, with input from the OAC, developed a broad set of alternatives for the Council to consider and refine at its June 2015 meeting. While the Council has not deliberated over formal analysis and testimony on any alternatives for this action, it did consider alternatives in paring down the staff proposal to the current set.

The Council chose not to pursue a mandatory reclassification of *all* BSAI trawl CVs to full coverage, because some vessels spend only a small amount of time fishing in a manner that would be subject to partial coverage. For example, in any given year, some vessels make the all (or most) of their BSAI non-AFA trawl deliveries to motherships. Requiring those vessels to carry a full coverage observer would increase the vessel's observer cost but would not enhance effective catch monitoring, as those deliveries are observed upon offload of the unsorted codend at the mothership. In other cases, the Council did not feel compelled to move unwilling vessels out of the partial coverage category, when the analyses that informed the 2013 restructuring of the Observer Program determined that partial coverage was sufficient to provide scientific and management data for the BSAI non-pollock CV fisheries. In general, a broad requirement that all BSAI CVs move to full coverage would necessitate a lengthy process to determine impacts on vessels whose activity is not consistent with the issues identified in the Council's purpose and need statement. The Council limited its range of alternatives to ones that are more responsive to the testimony that it has received.

The Council also chose not to define the universe of vessels that would be directly regulated by this action according to participation in a particular BSAI directed fishery, namely Pacific cod. In developing a range of alternatives, the Council noted that the vessels petitioning NMFS for voluntary full coverage were typically targeting Pacific cod. Several considered options would have placed non-pollock trawl vessels in full coverage only when fishing for Pacific cod. NMFS and the OAC noted that moving vessels in and out of the full coverage category at various points throughout the year, based on reported trip targets, would be onerous for staff and would make effort projections for partial coverage deployment plans more difficult. The Council further noted that the vast majority of non-pollock trawl effort in the BSAI is in the directed Pacific cod fishery (see Section 3.5.2). Nevertheless, the algorithms used in catch accounting determine the target of a trip *ex post facto*, based on the species that makes up the majority of landed

catch. In that sense, a trip's "target" is not known until after the fact, and would not be useful in determining the appropriate level of observer coverage if requirements are based on target species.

3 Regulatory Impact Review

This Regulatory Impact Review (RIR) examines the benefits and costs of a proposed regulatory amendment to place catcher vessels (CV) in the full observer coverage category while using trawl gear in Bering Sea and Aleutian Islands (BSAI) groundfish fisheries. Depending on the alternative that is selected, CVs could be placed in mandatory full coverage, or vessel owners could be extended a choice to move from partial to full coverage. The alternatives under consideration are further described in Section 3.3.

The preparation of an RIR is required under Presidential Executive Order (E.O.) 12866 (58 FR 51735: October 4, 1993). The requirements for all regulatory actions specified in E.O. 12866 are summarized in the following Statement from the E.O.:

In deciding whether and how to regulate, agencies should assess all costs and benefits of available regulatory alternatives, including the alternative of not regulating. Costs and Benefits shall be understood to include both quantifiable measures (to the fullest extent that these can be usefully estimated) and qualitative measures of costs and benefits that are difficult to quantify, but nonetheless essential to consider. Further, in choosing among alternative regulatory approaches agencies should select those approaches that maximize net benefits (including potential economic, environmental, public health and safety, and other advantages; distributive impacts; and equity), unless a statute requires another regulatory approach.

E.O. 12866 requires that the Office of Management and Budget review proposed regulatory programs that are considered to be “significant.” A “significant regulatory action” is one that is likely to:

- Have an annual effect on the economy of \$100 million or more or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, local or tribal governments or communities;
- Create a serious inconsistency or otherwise interfere with an action taken or planned by another agency;
- Materially alter the budgetary impact of entitlements, grants, user fees, or loan programs or the rights and obligations of recipients thereof; or
- Raise novel legal or policy issues arising out of legal mandates, the President’s priorities, or the principles set forth in this Executive Order.

3.1 Statutory Authority

Under the Magnuson-Stevens Fishery and Conservation Act (Magnuson-Stevens Act) (16 USC 1801, *et seq.*), the United States has exclusive fishery management authority over all marine fishery resources found within the exclusive economic zone (EEZ). The management of these marine resources is vested in the Secretary of Commerce (Secretary) and in the regional fishery management councils. In the Alaska Region, the Council has the responsibility for preparing fishery management plans (FMPs) and FMP amendments for the marine fisheries that require conservation and management, and for submitting its

recommendations to the Secretary. Upon approval by the Secretary, NMFS is charged with carrying out the federal mandates of the Department of Commerce with regard to marine and anadromous fish.

The BSAI groundfish fisheries in the EEZ off Alaska are managed under the FMP for Groundfish of the BSAI. The action under consideration would amend this FMP and Federal regulations at 50 CFR 679. Actions taken to amend FMPs or implement other regulations governing these fisheries must meet the requirements of Federal law and regulations.

3.2 Purpose and Need for Action

The Council initiated this potential action in response to public comment submitted to NMFS during the rulemaking process for the restructuring of the North Pacific Groundfish and Halibut Observer Program, in 2012. A detailed description of the salient stakeholder concerns and the Council's development of alternatives is provided in Section 1.1. The Council adopted the following purpose and need statement at its June 2015 meeting:

Since 2013, NMFS has allowed the owners of BSAI trawl catcher vessels in the partial observer coverage category to volunteer on an annual basis for full observer coverage during all times that they participate in BSAI fisheries. Individuals who have made this choice thus far are owners of AFA catcher vessels that participate in the BSAI limited access Pacific cod trawl fishery. They choose full coverage to better manage Pacific halibut prohibited species catch (PSC) limits within their cooperatives. Current regulations do not authorize voluntary selection of full coverage. Vessel owners who choose full coverage must pay both the ex-vessel based partial coverage observer fee and a daily full coverage observer rate. The Council recognizes that this is an additional financial burden to vessel owners who voluntarily choose full coverage. An amendment to the regulations implementing the North Pacific Groundfish and Halibut Observer Program may be warranted. The Council seeks to balance the observer costs for BSAI trawl catcher vessel owners with NMFS's ability to monitor and enforce compliance with observer coverage requirements and the essential functioning of the Observer Program's partial coverage category.

3.3 Alternatives

The Council adopted the following alternatives for analysis at its June 2015 meeting:

Alternative 1. Status Quo

Alternative 2. Require 100% observer coverage for AFA trawl CVs for all fishing in the BSAI (i.e., move these vessels into the full coverage category in regulation).

Alternative 3. Allow trawl CVs currently assigned to partial observer coverage to voluntarily choose 100% observer coverage for all fishing in the BSAI.

Option 1. Allow AFA trawl CVs currently assigned to partial observer coverage to voluntarily choose 100% observer coverage for all fishing in the BSAI.

Suboptions apply to Alt. 3, or Alt. 3, Option 1:

Suboption 1. Vessels must opt-in to full (100%) coverage by July 1 of the previous year.

Suboption 2. One-time selection by vessels (applies in all future years).

If the Council recommends Alternative 3 as its preferred alternative, it would presumably need to identify one (and only one) of the suboptions. Selecting neither would not establish a process for recategorizing affected CVs.

The observer requirements pertaining to vessels that deliver unsorted codends to motherships (or CPs acting as motherships) would not be altered under any of the alternatives. Vessels delivering to motherships are not required to carry an observer, since the catch is being sorted after it is transferred to a mothership where full coverage observers would be stationed. Vessels delivering to a mothership are not required to register their trip in ODDS prior to departure, and are not subject to the partial coverage observer fee liability.

The analysts assume that “AFA trawl CVs” refers to all CVs that are *eligible* to join an AFA cooperative. In limited circumstances, an AFA-eligible vessel might not be affiliated with a cooperative for a period of one year, as the vessel is required to spend time in the limited access fishery between breaking its affiliation with one cooperative and joining a new one. The list of vessels that were issued AFA permits in any given year can be found on the NMFS Restricted Access Management (RAM) website¹⁰.

As a general note, “full coverage” and “100% observer coverage” means that vessels would be placed into the full observer coverage category, as defined in regulation and described in Section 3.5.1.

3.4 Methodology for Analysis of Impacts

The evaluation of impacts in this analysis is designed to meet the requirement of E.O. 12866, which dictates that an RIR evaluate the costs and benefits of the alternatives, to include both quantifiable and qualitative considerations. Additionally, the analysis should provide information for decision-makers “to maximize net benefits (including potential economic, environment, public health and safety, and other advantages; distributive impacts; and equity), unless a statute requires another regulatory approach.” The costs and benefits of this action with respect to these attributes are described in the sections that follow, comparing the No Action Alternative (Alternative 1) with the action alternatives. The analysts then provide a qualitative assessment of the net benefit to the Nation of each action alternative, as compared to Alternative 1.

This analysis was prepared using data from NMFS’s Alaska Catch Accounting System (CAS), which is the best available data to estimate total catch in the groundfish fisheries off Alaska. Total catch estimates are generated from information provided through a variety of required industry reports of harvest and at-sea discard, and data collected through an extensive fishery observer program. In 2003, NMFS changed the methodologies used to determine catch estimates from the NMFS blend database (1995 through 2002) to the CAS (2003 through present).

¹⁰ <http://alaskafisheries.noaa.gov/ram/afa.htm>.

CAS was implemented to better meet the increasing information needs of fisheries scientists and managers. Currently, CAS relies on data derived from a mixture of production and observer reports as the basis of the total catch estimates. The 2003 modifications in catch estimation included providing more frequent data summaries at finer spatial and fleet resolution, and the increased use of observer data. Redesigned observer program data collections were implemented in 2008, and include the recording of sample-specific information in lieu of pooled information, increased use of systematic sampling over simple random and opportunistic sampling, and decreased reliance on observer computations. As a result of these modifications, NMFS is unable to recreate blend database estimates for total catch and retained catch after 2002. Therefore, NMFS is not able to reliably compare historical data from the blend database to the current catch accounting system. This analysis relies on CAS data from 2010 through 2014, which covers the five most recent years for which complete information is available.

Data is provided through the Alaska Fisheries Information Network (AKFIN), which pulls together CAS data and CFEC Fish Ticket data to supply catch records and ex-vessel value estimates. This analysis also relies on summary data that is provided by the NMFS Observer Program in its Annual Reports and Annual Deployment Plans (NMFS 2014a). The Annual Reports covering 2013 and 2014 comprise the most complete and definitive record of program management and expenditures since the restructured Observer Program was implemented for the 2013 fishing year (NMFS 2014b, NMFS 2015).

This document utilizes AKFIN data that report the number of “days fished”, which is a metric based on information reported on CFEC Fish Tickets. Fish Tickets provide the dates on which fishing began and the date on which the fish were landed or delivered to a processor. The number of days fished is estimated by taking the difference between those dates and adding one day to that total. The additional day is added to account for a variable number of days during each trip when the vessel was at sea but had not yet deployed gear. NMFS uses this metric to estimate the number of at-sea days for which a full coverage observer would be required, had that trip carried such an observer. NMFS Fisheries Monitoring and Analysis (FMA) Division has tested the methodology of adding one to the number of fishing days as a measure to estimate trip length, and has found it to be in line with the total amount of invoiced observer days.

3.5 Background

3.5.1 North Pacific Groundfish and Halibut Observer Program

In 2013, the Council and NMFS restructured the Observer Program to place all vessels and processors in the groundfish and halibut fisheries into one of two categories: full coverage and partial coverage. When fishing in State of Alaska waters, vessels that possess a Federal Fisheries Permit (FFP) are subject to the federal observer coverage requirements when catching species that are debited from a federal total allowable catch limit (TAC). A vessel may be in full coverage for some fisheries, and in partial coverage for others.

Catcher/processors, motherships, and catcher vessels that are participating in a catch share program (limited access privilege program, or LAPP) that has transferable PSC allocations are placed in the full

coverage category by definition. Catch share programs with transferable PSC allocations include the Bering Sea pollock fisheries (both AFA and CDQ), the Central GOA Rockfish Program, and groundfish CDQ fisheries other than those for halibut and fixed-gear sablefish. For the purpose of this action, it is simple to assume that CVs are currently placed in full coverage when fishing AFA pollock or fishing CDQ groundfish with trawl gear.

The partial coverage category for groundfish is defined in regulation as all fisheries that are not in full coverage¹¹. The ADP for 2015 describes the three partial coverage deployment pools, or “strata” (NMFS 2014a):

- Large vessel trip-selection: (1) **All CVs using trawl gear**¹², (2) CVs using hook-and-line (HAL) or pot gear that are greater than or equal to 57.5’ LOA, and (3) CPs exempted from full coverage requirements¹³;
- Small vessel trip-selection: CVs using hook-and-line (HAL) or pot gear that are greater than or equal to 40’ LOA, but less than 57.5’ LOA;
- No selection: CVs less than 40’ LOA, or vessels using jig gear, or vessels with a conditional release due to life raft capacity¹⁴.

In the partial coverage category, NMFS has the flexibility to deploy observers when and where they are needed based on an annual deployment plan (ADP) developed in consultation with the Council. The ADP for the upcoming year is typically presented to the Council at the October meeting, and describes how NMFS plans to deploy observers to vessels in order to meet scientifically based catch estimation needs, while accommodating the realities of a dynamic fiscal environment. NMFS’s goal is to achieve a representative sample of fishing events. The annual planning and reporting process is described in Section 1.2 of the 2014 Observer Program Annual Report (NMFS 2015). Under the 2015 ADP, trawl CVs – which are in the large vessel trip-selection stratum by definition – have a 24 percent chance (rounded) of having their trip selected for coverage by a human observer. The trip selection probability for those vessels was 15.1 percent in 2014, and was between 11 percent and 15 percent in 2013 (NMFS 2014a).

Vessels (and processors) operating under the full coverage category obtain observers by contracting directly with observer providers. Full coverage entities are invoiced by the provider and pay an amount that reflects actual costs. NMFS estimates the cost per day for full observer coverage in its Observer Program Annual Report. Observer providers submit copies of all invoices for observer coverage, and NMFS compiles them to calculate the average cost of full coverage. The 2014 Annual Report cites the average daily rate for trawl CVs as \$331 (NMFS 2015, Figure 2-1, p.34).¹⁵ The Annual Report provides a separate estimate of daily observer costs that includes both daily rate and observer providers’ overhead costs (e.g. travel). For 2014, the total daily cost of full coverage was estimated to be \$371; however, that estimate is not specific to any particular vessel or processor type. In 2013, certified full coverage

¹¹ Specific partial coverage definitions are included for halibut/sablefish IFQ CVs, CVs fishing CDQ, certain CPs, and stationary floating processors.

¹² CVs that are not in the full coverage category by virtue of their activity under a LAPP that has transferable PSC allocations.

¹³ Possible CP exemptions are defined at 50 CFR 679.51(a)(2)(iv).

¹⁴ Vessels participating in Electronic Monitoring Cooperative Research are also placed in the no selection pool; this does not pertain to trawl vessels.

¹⁵ The 2013 Annual Report also estimated the average daily rate for trawl CVs as \$331 (NMFS 2014b).

providers supplied 37,137 observer-days (NMFS 2014b). In 2014, full coverage observers logged 37,676 observer-days (NMFS 2015); in that most recent year, 376 individuals were deployed as full coverage observers, meaning that each individual was deployed for approximately 100 days at sea (FMA Div., Pers. Comm. 2015).¹⁶

Funds for deploying observers in the partial coverage category are provided through a system of fees based on the ex-vessel value of landings that did not occur in the full coverage category.¹⁷ By statute, ex-vessel-based fees cannot exceed 2 percent of the value of a vessel's harvest in fisheries under the jurisdiction of the Council. The partial coverage fee liability is currently set at 1.25 percent of ex-vessel value (\$679.55); that liability is intended to be split evenly between the harvesting vessel (0.625 percent) and the processor that receives the landing (0.625 percent). The fee liability is determined by multiplying a standard price for groundfish by the round weight equivalent for each species and gear combination. Ex-vessel value is based on standard prices from prior years. The standard prices that will be used to determine 2015 liabilities are based on volume and value from 2011 through 2013. NMFS is not able to use a basis of actual ex-vessel prices at the time of the landing because (1) they are not always known or accurately reported on landings reports, (2) some prices are adjusted later in the season, (3) some processors and CVs do not have an independent relationship, and (4) it would be costly for NMFS to audit or investigate incidences of suspected inaccurate price reporting. In order to apply the most appropriate price to a landing, NMFS uses the standard price that reflects the location of the landing with the highest degree of precision. NMFS collects data at the port-level (e.g., Kodiak, Homer, or King Cove) and aggregates up to regulatory area, BSAI/GOA, state-level, or all ports including those outside Alaska, as is necessary to comply with confidentiality regulations. The standard groundfish prices for 2015 are listed on the region website by species, gear type, and port/area group¹⁸.

The Observer Program Annual Reports estimate the cost per day of placing an observer onboard a partial coverage vessel. According to the most recent Annual Report, since the 2013 Program restructuring NMFS has spent a total of \$11,537,542 to procure 10,816 observer days, yielding an average cost per day of \$1,067 (NMFS 2015).¹⁹ That cost is a combination of a daily rate for the days that an observer is on a boat or at a shoreside processing plant, and reimbursable travel costs. The contractor must also recoup their total costs and profit through the daily rate, which includes the costs to the provider of days that observers are not deployed on a boat or at a plant. Those days include training, travel, debriefing, and days that an observer is deployed but not stationed on a boat or at a plant. The detailed cost breakdown between the daily rate and travel (or other costs) is confidential. Furthermore, NMFS can only release information on the number of observer days that have been provided after the services have been procured, meaning that 2014 represents the most recent available data. The 2014 Annual Report states that "NMFS anticipates that the average cost per observer day is likely to be reasonably stable over the next 5 years and not vary dramatically from average costs we have seen thus far in the program" (NMFS 2015, p.32). NMFS notes that the average daily cost for partial observer coverage is on par with

¹⁶ FMA staff arrived at an estimate of "days at sea" by subtracting "processing plant days" from the total number of full coverage days that NMFS was invoiced.

¹⁷ No partial coverage fee is levied on the landings of vessels that are not required to carry an observer because they are delivering unsorted codends to motherships.

¹⁸ <http://alaskafisheries.noaa.gov/sustainablefisheries/observers/2015standardprices.xlsx>. The most current standard prices are also noticed in the Federal Register at 78 FR 73842.

¹⁹ NMFS 2014 Annual Report describes components of the newly signed five-year partial observer coverage contract that are designed to improve efficiency and reduce costs (see NMFS 2015, Section 2.6.1).

government-contracted rates in other regions, and lists several factors that impact the cost of partial coverage as compared to the daily cost of full coverage. Those factors, also listed on page 32 of the 2014 Annual Report, include the following: Federal contracts are subject to regulations that dictate wages, benefits, and overtime for observers; partial coverage observers deploy out of many remote port locations with higher travel and lodging costs; average trip duration for partial coverage observers is shorter and requires more travel in between vessel deployments; expenses incurred between deployments are subject to government travel regulations that include per diem rates that are paid regardless of actual expenses; and that partial coverage is inherently less efficient than full coverage because the days on which observers are not deployed are expected but difficult to predict, thus increasing uncertainty in the number of undeployed days for which the partial coverage provider has to recoup costs.

NMFS Observer Program staff is responsible for training new observers, briefing experienced ones, and debriefing observers after their deployments end. Actions that increase observer coverage can be expected to increase demands on Program resources. Trip debriefing backlogs already exist under the current Program structure; these tend to occur as observers on 90 day contracts return from the early-year pollock and Pacific cod seasons.

Voluntary Full Coverage for BSAI Trawl Catcher Vessels

As referenced in Section 1.1 of this document, this action deals with vessels that have voluntarily requested permission to carry a full coverage observer, while still being classified as a partial coverage vessel. Since 2013, NMFS has allowed BSAI trawl CV owners to voluntarily select full coverage by petitioning NMFS on or before December 1 of the preceding calendar year. NMFS has accepted later requests in the past, but has denied requests from vessels that have already commenced their fishing activity in the year to which the request would apply. The individuals making those requests tend to be the owners of vessels that are part of an AFA pollock cooperative, but also trawl for Pacific cod and other limited access groundfish in the BSAI. Appendix 1 (Section 8) provides an example of a letter that would be sent to NMFS to make such a request.

Voluntary participation in the full coverage category is subject to the following conditions: (1) the vessel stay in full coverage for all of that year's BSAI fishing, (2) the operator must continue to log all non-AFA pollock trips into ODDS for observer selection, (3) the vessel owner must pay an observer provider "out of pocket" for the daily cost of a full coverage observer, and (4) the vessel's landings are still subject to the partial coverage observer fee liability for landings that are subject to the fee.

Table 1 shows the number of CVs that have requested full coverage in each of the three years since the Observer Program was restructured, as well as the total number of CVs that were active in the BSAI Pacific cod trawl fishery. In total, 46 unique CVs have volunteered for full coverage in at least one year from 2013 through 2015. Of the vessels that had requested full coverage in the past but did not do so in 2015, 6 vessels made the request only in 2013, 1 vessel made the request only in 2014, and 8 vessels made the request in both 2013 and 2014, and. Of the 31 vessels that requested full coverage in 2015, 25 vessels have made the request in each of the three years for which NMFS has allowed the practice, 3 vessels made the request in 2014 and 2015, 2 vessels made the request only in 2015, and 1 vessel made the request in both 2013 and 2015.

Vessel owners are not required to provide their rationale for requesting full coverage, or for dropping that request after having made it in previous years. Vessel owners might request full coverage for the first time if they plan to be active in non-AFA fisheries, and their AFA cooperative agreement dictates that they have full accounting of their halibut PSC. An operator might also volunteer for full coverage if he or she thinks that the AFA cooperative would be poorly served by exposing its collective PSC limit to extrapolated PSC estimates that are influenced by the non-AFA fleet. Conversely, a vessel owner might decide not to carry a full coverage observer if the expected cost of paying a daily rate is dramatically higher than the partial coverage fee liability, if he or she feels that the operational impact of carrying an observer on only around 24 percent of trips would benefit the vessel, or, perhaps, if he or she feels that the extrapolated PSC estimate from other vessels would be favorable to the level that the vessel would accrue if all of its trips were observed. These decision points and trade-offs are discussed further under Section 3.6 (Impacts of the No Action Alternative).

Table 1 Number of trawl CVs that voluntarily participated in the full observer coverage category, and total number of trawl CVs that participated in the BSAI Pacific cod fishery, 2013 through 2015

Number of Trawl CVs...	2013	2014	2015
Volunteering for full coverage	40	37	31
Total in BSAI Pacific cod fishery	53	48	48

Source: Provided by NMFS Alaska Region Office Sustainable Fisheries Division.

Note: 2015 BSAI trawl participation as of May 2015.

3.5.2 BSAI Trawl Catcher Vessel Fleet

This subsection provides an overview of the BSAI trawl CV fleet that could be affected by the action alternatives under consideration. Data are provided on participation across various fisheries, ex-vessel revenues, delivery to different processing sectors (shoreside and mothership), fishing effort (in terms of the number of days that vessels were at sea), and fee liabilities paid into the partial observer coverage program.

Vessels and Participation Across Fisheries

During the 2010 through 2014 period, 156 unique CVs trawled in either the BSAI or GOA. One-hundred and eighteen of these CVs fished in the BSAI, and 84 vessels fished in the GOA; 46 of those vessels fished in both areas. Of the 118 BSAI trawl CVs that were active during the analyzed period, 77 fished in the BSAI non-AFA trawl fisheries. Fifty-six of those 77 CVs were affiliated with an AFA pollock cooperative. Overall, 97 active BSAI CVs are affiliated with AFA cooperatives, though only 93 of those vessels made an AFA landing during the analyzed period.

The number of CV trawl vessels active each year in the BSAI ranged between 100 and 109 (Table 3). In any given year during the analyzed period, between 85 and 90 CVs trawled for BSAI pollock under the AFA program, and between 49 and 60 CVs trawled in non-AFA BSAI fisheries (Pacific cod and other non-pollock groundfish).

The 118 CVs that trawled in the BSAI from 2010 through 2014 range in length overall (LOA) from 57 feet to 200 feet. Prior to 2015, vessel length was used to determine trip selection rates in the partial observer coverage category. As of 2015, all CVs using trawl gear are in the large vessel trip-selection stratum when they are not participating in a catch share program. That observer stratum currently has a target selection rate of 24 percent.

Table 2 provides a snapshot of participation across Alaska fisheries by the 144 CVs that trawled in either the BSAI or the GOA during 2014. This table shows the high level of cross-participation between the limited access BSAI Pacific cod trawl fishery and the AFA pollock fishery. Thirty-six of the 48 CVs that targeted BSAI Pacific cod with trawl gear in 2014 also made AFA pollock landings (75 percent). The table also shows that a portion of the 48 BSAI Pacific cod trawl CVs participated in GOA trawl limited access fisheries, which requires partial observer coverage, and the Central GOA Rockfish Program, which requires full observer coverage. As an aside, the Council is also considering an action that would require full observer coverage on GOA trawl CVs; the impacts of harmonizing observer coverage requirements for vessels that operate in both groundfish FMP areas are discussed under the analysis of impacts for the action alternatives (Section 3.7).

Table 1, above, shows that 37 trawl CVs volunteered for full coverage on all of their BSAI fishing in 2014.²⁰ Nine of the volunteer CVs in that year did not actually trawl for Pacific cod or in other BSAI non-AFA fisheries, though perhaps they had planned to when they made the request to NMFS to be in full coverage for the upcoming year. Five of the volunteer CVs did not land any BSAI pollock in 2014, though they were affiliated with an AFA cooperative. Those five vessels exemplified the motivation of AFA-affiliated CVs whose halibut PSC is attributed to their cooperative to have complete accounting of their halibut catch. Of the 48 total CVs that were active in the BSAI Pacific cod trawl fishery, 20 were non-volunteer vessels that were operating under partial observer coverage.

²⁰ Twenty-five of the 37 CVs that volunteered for full coverage in 2014 also trawled in the GOA that year.

Table 2 Target fishery-level vessel counts for all CVs that trawled in the BSAI or GOA in 2014

	GOA Pollock TRW	GOA Pacific Cod TRW	GOA Other GFish TRW	CGOA Rockfish Prog.	AFA Pollock	BSAI Pacific Cod TRW	BSAI Other GFish TRW	Halibut/Sablefish IFQ	Rationalized Crab
GOA Pollock TRW	68	54	29	28	19	11		11	
GOA Pacific Cod TRW		55	27	25	11	6		10	
GOA Other GFish TRW			29	25	11	6		2	
CGOA Rockfish Prog.				28	13	5		2	
AFA Pollock					86	36		1	1
BSAI Pacific Cod TRW						48	4		1
BSAI Other GFish TRW							4		
Halibut/Sablefish IFQ								11	
Rationalized Crab									2

Sources: Catch Accounting System data compiled by AKFIN in Comprehensive_BLEND_CA; ADFG/CFEC Fish Ticket data compiled by AKFIN in Comprehensive_FT.

Ex-Vessel Revenues

Table 3 shows the total ex-vessel revenues for all 118 trawl CVs that were active in the BSAI during the 2010 through 2014 period. Overall, pollock accounted for 89 percent of total revenues, and nearly all of those revenues were generated from fishing within the AFA program. Of the 118 trawl CVs, 97 were affiliated with an AFA cooperative, and 21 were not. Across all BSAI target fisheries in that time period, AFA CVs accounted for 97 percent of total BSAI trawl ex-vessel revenues. AFA vessels accounted for 99.97 percent of pollock revenues, and roughly 81 percent of Pacific cod revenues, but only 9 percent of revenues from other BSAI groundfish targets (flathead sole, yellowfin sole, rock sole, arrowtooth flounder, other flatfish, rockfish, Atka mackerel, sharks, and skates). On the whole, the other groundfish targets (non-pollock, non-cod) accounted for only 1.4 percent of total groundfish revenues for the sector during the analyzed time period (roughly \$15.6 million out of over \$1.1 billion)

Table 3 Total ex-vessel value (\$) of BSAI trawl CV groundfish landings by trip target, 2010 through 2014

Year	# Vessels	Pollock	Pacific Cod	Other Spp.	Total
2010	102	146,554,695	13,081,827	420,052	160,056,573
2011	105	224,703,839	21,090,516	1,834,552	247,628,908
2012	109	236,677,004	31,448,970	7,003,469	275,129,442
2013	102	216,549,560	19,544,438	3,793,138	239,887,135
2014	100	186,749,724	22,977,481	2,543,025	212,270,230

Note: "Other Spp." Includes flathead sole, yellowfin sole, rock sole, arrowtooth flounder, other flatfish, rockfish, Atka mackerel, sharks and skates.

Source: ADFG/CFEC Fish Ticket data compiled by AKFIN in Comprehensive_FT.

Only 28 of the 97 AFA CVs used trawl gear in the GOA from 2010 through 2014. The ex-vessel revenues that those 28 vessels generated in the GOA (~\$102 million) accounted for 8.5 percent of the AFA CV

fleet's total ex-vessel revenues. By comparison, the 21 non-AFA BSAI trawl CVs derived, on average, 63.4 percent of their total gross revenues from GOA trawl activity (roughly \$61.2 million out of \$96.6 million). Three non-AFA CVs did not trawl in the GOA at any time, hence the average dependency on the GOA was lower than the median (86.3 percent of ex-vessel revenues).

Forty-one of the 97 AFA trawl CVs did not record any landings outside of the AFA program during the analyzed time period. The 56 AFA CVs that used trawl gear in non-AFA BSAI fisheries predominately targeted Pacific cod. Of the ex-vessel revenues generated by those 56 vessels in non-AFA BSAI fishing, 97.5 percent came from trips that targeted Pacific cod.

Of the 46 CVs that have volunteered to carry a full coverage observer at some point since 2013, 41 have actually made BSAI trawl landings outside of the AFA program. All of the 46 "volunteer" CVs are affiliated with an AFA cooperative. Thirty-six CVs that did not volunteer for full coverage prosecuted BSAI non-AFA trawl fisheries during the analyzed period. Of those 36 vessels, 15 are affiliated with an AFA cooperative and 21 are not. The effort of these vessels is of particular interest in this analysis, as these vessels were in the partial coverage category, but could be placed or allowed to opt into the full coverage category under the action alternatives. The AFA-affiliated non-volunteer vessels tended to focus more strictly on Pacific cod when fishing in the BSAI trawl limited access fisheries (88.7 percent of non-AFA ex-vessel revenues), whereas non-AFA non-volunteer vessels were slightly less dependent on Pacific cod. Those 21 non-AFA non-volunteer vessels derived roughly 59 percent of their ex-vessel revenues from Pacific cod, and roughly 40 percent from other groundfish (the balance of ex-vessel revenues – less than 1 percent – are attributed to non-AFA trips that are classified in CAS as having targeted pollock).

Ex-Vessel Revenue in BSAI non-pollock target fisheries

During the analyzed time period, 77 unique trawl CVs fished in the non-pollock directed fisheries in the BSAI area (non-AFA). Trips targeting Pacific cod accounted for 86.6% of the total ex-vessel revenues from all BSAI non-pollock CV trawl fisheries. This subsection provides data on the ex-vessel revenues for those limited access fisheries, and breaks out fishing activity by whether the trip delivered to the shoreside or the mothership processing sector.

Table 4 indicates that BSAI CVs trawling in the non-pollock fisheries generated, on average, around \$25 million ex-vessel per year. In 2013 and 2014, the subset of CVs that volunteered for full coverage accounted for 57% of the fleet's ex-vessel revenues.

Table 4 Ex-vessel revenues and vessel counts for the BSAI non-pollock trawl fisheries, 2010 through 2014

		2010	2011	2012	2013	2014	Total
Ex-Vessel Revenue (\$)	AFA Volunteer	N/A			13,330,897	14,463,732	27,794,629
	AFA Non-Volunteer	N/A			1,770,410	4,848,374	6,618,784
	AFA Subtotal	12,479,760	17,073,262	24,980,947	15,101,307	19,312,106	88,947,382
	Non-AFA	2,027,885	5,721,432	12,985,440	8,329,927	6,259,443	35,324,127
	Grand Total	14,507,645	22,794,693	37,966,387	23,431,234	25,571,550	124,271,509
# CVs	AFA Volunteer	N/A			33	30	38
	AFA Non-Volunteer	N/A			7	12	15
	AFA Subtotal	39	38	45	40	42	56
	Non-AFA	10	13	15	12	8	21
	Grand Total	49	51	60	52	50	77

Source: ADFG/CFEC Fish Tickets, compiled by AKFIN in Comprehensive_FT, and NMFS CAS data compiled by AKFIN in Comprehensive_BLEND_CA.

Of the CV fleet’s BSAI non-pollock trawl revenues, 81.5% came from deliveries made to shoreside processors. The remaining 18.5% came from deliveries to motherships. Recall that, as noted in Section 3.3, CVs delivering to motherships are not required to carry observers, nor are they assessed an observer fee on their mothership deliveries. The analysts interpret the Council’s intent, under Alternative 2, to be that AFA-affiliated trawl CVs making a mix of deliveries to each processing sector would only have to carry a full coverage observer when they are planning to deliver shoreside.

Fifteen different trawl CVs made at least one mothership delivery during the analyzed period. Ten AFA-affiliated CVs made mothership deliveries, and five of those vessels were among the 46 that volunteered for full observer coverage in at least one of the last three years. It is worth noting that none of the vessels that volunteered for full coverage in 2013 or 2014 made mothership deliveries during the year(s) that they were in full coverage. Five non-AFA CVs also made mothership deliveries. No vessel delivered exclusively to the mothership sector for the entire period. Table 5 shows the number of CVs trawling in BSAI non-AFA fisheries during each year, and the processing sectors to which they delivered.

Table 5 Number of BSAI trawl CVs active in non-AFA fisheries, by processing sector, 2010 through 2014

Year	# Vessels			
	Total	Deliver Shoreside	Deliver to Mothership	Both
2010	49	44	3	2
2011	51	41	4	6
2012	60	47	4	9
2013	52	46	3	3
2014	50	-	-	-

Source: ADFG/CFEC Fish Tickets, compiled by AKFIN in Comprehensive_FT, and NMFS CAS data compiled by AKFIN in Comprehensive_BLEND_CA.

The analysts assume that vessel owners determine their annual delivery plan according to market opportunities and shifting processor relationships. No clear factors for determining which vessels delivered to motherships emerge from the available data, nor is there a clear mechanism for anticipating what proportion of a vessel’s catch will be delivered to each processing sector in a given year. The vessels that delivered to both motherships and shoreside facilities in the same year did not systematically tend to

deliver more of their catch to one processing sector or the other. Some CVs delivered all of their fish to motherships in one year, and all of it to shoreside plants in the next, or vice versa. A vessel that delivered 93 percent of its BSAI non-AFA catch to motherships one year delivered around half of its catch to each sector in the following year, and then 100 percent of its catch shoreside in the year after that. Among vessels that delivered to both processing sectors in a given year, the minimum proportion of non-AFA catch delivered by a vessel to the mothership sector was 2 percent, and the minimum proportion of catch delivered shoreside was 4 percent.

Note that the breakdown of deliveries to motherships and shoreside processors is not yet available for 2014. AKFIN receives processor-reported data on 2014 operations throughout the first half of 2015, and must then run a data correction program. This process is typically completed in August or September. 2014 information could be included in a subsequent draft of this analysis.

Effort (Estimated Days at Sea)

This subsection summarizes historical data on the number of days that different sub-groups of the BSAI trawl CV fleet were out of port on fishing trips. This information is provided by AKFIN, and is estimated using the method described in Section 3.4. The analysis of impacts for the action alternatives (Section 3.7) utilizes this trip length data to estimate the additional costs of daily observer coverage for vessels that move from partial to full coverage as a result of this action. This subsection mostly focuses on effort in the BSAI non-AFA trawl fisheries, since AFA activity is already under the full coverage category.

BSAI CV Effort by Fishery

The 118 unique CVs that trawled in the BSAI from 2010 through 2014 logged a cumulative 55,165 fishing days, 80% of which was directed pollock fishing under the AFA program (44,216 days). In any given year, the proportion of the BSAI CV fleet’s fishing days that occurred on AFA pollock trips ranged between 78% and 85% of the total (Table 6).

Table 6 CV trawl effort and vessel counts in BSAI fisheries, 2010 through 2014

Year		AFA	Non-AFA	Total
2010	Fishing Days	6,008	1,557	7,565
	# Vessels	85	49	102
2011	Fishing Days	9,662	1,765	11,427
	# Vessels	86	51	105
2012	Fishing Days	9,720	2,609	12,329
	# Vessels	90	60	109
2013	Fishing Days	9,559	2,476	12,035
	# Vessels	85	52	102
2014	Fishing Days	9,267	2,542	11,809
	# Vessels	86	50	100
Total	Fishing Days	44,216	10,949	55,165
	# Vessels	93	77	118

ADFG/CFEC Fish Tickets, compiled by AKFIN in Comprehensive_FT, and NMFS CAS data compiled by AKFIN in Comprehensive_BLEND_CA.

In total, the 77 CVs that participated in the BSAI non-AFA fisheries were at sea for 10,949 days from 2010 through 2014. That total would indicate that the average vessel was at sea targeting non-pollock species in the BSAI for approximately 30 days per year in each of the five years. As previously noted, those 77 vessels include 56 that are affiliated with an AFA cooperative and 21 that are not. The 56 AFA-affiliated vessels accounted for roughly 60% of the fishing days in the non-AFA fisheries over the analyzed period (6,621 days). AFA-affiliated CVs spent 98% of their non-AFA fishing days on trips that targeted Pacific cod (6,490 days). By comparison, non-AFA CVs spent only 54% of fishing days on Pacific cod trips (2,336 out of 4,328).

Of the 77 CVs that were active in the BSAI non-AFA trawl fisheries from 2010 through 2014, 41 volunteered to be in full coverage at some point since 2013 and 36 did not. Table 7 details fishing effort in the non-pollock fisheries, and highlights the fishing day for vessels that had volunteered for full coverage in a particular year. Since 2012, the non-pollock fleet has recorded around 2,500 fishing days per year. However, since 2013, a significant portion of those days were logged by vessels that are already carrying a full coverage observer. Around 60% of the active fleet volunteered for full coverage in 2013 (33 out of 52 vessels) and 2014 (30 out of 50 vessels). These volunteer vessels accounted for roughly 46% of the fleet's fishing days in 2013 (1,128 out of 2,476 days) and 2014 (1,178 out of 2,542 days). Considering only the AFA-affiliated portion of the fleet, volunteer vessels accounted for 83% of BSAI non-pollock fishing days in 2013 and 2014 (2,306 out of 2,793 days). AFA-affiliated CVs that did not choose to carry a full coverage observer accounted for 17% (487 out of 2,793 days).

Table 7 Fishing days and vessel counts for the BSAI non-pollock trawl fisheries, 2010 through 2014

		2010	2011	2012	2013	2014	Total
Fishing Days	AFA Volunteer				1,128	1,178	2,306
	AFA Non-Volunteer		N/A		130	357	487
	AFA Subtotal	1,197	1,240	1,391	1,258	1,535	6,621
	Non-AFA	360	525	1,218	1,218	1,007	4,328
	Grand Total	1,557	1,765	2,609	2,476	2,542	10,949
# CVs	AFA Volunteer				33	30	38*
	AFA Non-Volunteer		N/A		7	12	15
	AFA Subtotal	39	38	45	40	42	56
	Non-AFA	10	13	15	12	8	21
	Grand Total	49	51	60	52	50	77

* The total number of unique volunteer CVs is not the same as the 41 noted in the preceding paragraph, because this table does not include 2015, when three vessels volunteered for full coverage that had not done so in 2013 or 2014. Source: ADFG/CFEC Fish Tickets, compiled by AKFIN in Comprehensive_FT, and NMFS CAS data compiled by AKFIN in Comprehensive_BLEND_CA.

BSAI CV Non-Pollock Effort by Processing Sector

For the BSAI non-AFA (non-pollock) CV trawl fleet, Table 8 shows the proportion of fishing days that occurred on trips that delivered to either the mothership or the shoreside processing sector. Recall that 2014 data is omitted because the mothership/shoreside breakdown is not yet available for that year. Of the total number of fishing days logged during that time period (8,407), 25% (2,113 days) were on trips that delivered to a mothership, and thus would not be selected for observer coverage. The proportion of days on non-pollock trips that delivered to motherships varied between 8% and 33%, annually, with a high of 851 days and a low of 118 days.

For the 2010 through 2013 period, AFA-affiliated vessels accounted for 60% of total BSAI non-pollock CV fishing days (trips delivering to either mothership or shoreside processors). AFA vessels accounted for 75% of the total fishing days on trips that delivered to shoreside processors – between 74% and 76%, annually). AFA vessels, as a group, displayed more annual variation in their relative proportion of fishing days for trips that delivered to motherships. Over the entire period, AFA CVs accounted for 18% of mothership fishing days in the BSAI non-pollock trawl fisheries, but annual values ranged from 4% in 2013 (30 days) to 84% in 2010 (99 days). On average, the fleet of AFA-affiliated CVs fished, in aggregate, 96 days for the mothership sector and 1,175 days for the shoreside sector.

Table 8 Proportion of total fishing days in the BSAI non-pollock CV trawl fisheries that occurred on trips delivering the mothership and shoreside processing sectors, 2010 through 2013

Sector	2010		2011		2012		2013		Total	
	Days	%	Days	%	Days	%	Days	%	Days	%
Mothership	118	8%	317	18%	851	33%	827	33%	2,113	25%
Shoreside	1,439	92%	1,448	82%	1,758	67%	1,649	67%	6,294	75%

Table 9 provides a closer look at fishing year 2013, specifically focusing on the effort of vessels that volunteered for full coverage. Recall from Table 1 that 40 CVs volunteered for full observer coverage in 2013 (all were AFA-affiliated); 33 of those CVs actually trawled in BSAI limited access fisheries during 2013. Those 33 CVs fished a combined 1,128 days, all on trips that delivered shoreside. Seven AFA-affiliated CVs that did not volunteer for full coverage in 2013 were active BSAI non-pollock trawl fisheries; 77% of their fishing days were on trips that delivered shoreside (100 of 130 days). Twelve non-AFA CVs were active in BSAI non-pollock trawl fisheries in 2013; none of those vessels volunteered for full coverage. Only 35% of the non-AFA vessels’ fishing days occurred on trips that delivered shoreside (421 of 1,218 days).

Though NMFS had not yet adopted its policy of allowing CV owners to volunteer for full coverage during the 2010 through 2012 fishing years, the data reveal that volunteer vessels, in general deliver shoreside. Of the 41 vessels that volunteered at some point between 2013 and 2015 and were active in the BSAI non-pollock fisheries, only five delivered to a mothership between 2010 and 2012.²¹ Only two of those five vessels spent a number of fishing days on mothership trips that was greater than, or in the neighborhood of, the number of days spent on shoreside trips in any one year. In short, based on the limited data available, “volunteer” vessels *tend* not to deliver to motherships.

Table 9 Fishing days by processing sector for the 2013 fleet of BSAI non-pollock CVs

	Vessel Affiliation	# Vessels	Fishing Days (by proc. sector)		
			Mothership	Shoreside	Total
Volunteer	AFA	33	0	1,128	1,128
Non-Volunteer	AFA	7	30	100	130
	Non-AFA	12	797	421	1,218
Total		52	827	1,649	2,476

²¹ In aggregate, the vessels that volunteered for full coverage at least one year since the policy began in 2013 spent less than 4% of their fishing days on mothership trips during the 2010 through 2012 period.

Note: “Volunteer” indicates that the vessel’s owner requested and received NMFS’s permission to be in the full coverage observer category in 2013.

Partial Coverage Fee Liabilities

The Observer Program Annual Reports list the partial coverage fee liability that is associated with each gear sector. Recall that the 1.25 percent liability is shared between the harvesting vessel and the processor, so the numbers below represent the amount generated by BSAI trawl CV activity, not what the vessel owners would have paid themselves. In 2013, the BSAI trawl CV fishery’s total partial coverage fee liability was \$269,335 (Table 2-3, NMFS 2014b). In 2014, the total liability was \$282,533 (Table 2-4, NMFS 2015). In both years, over 97 percent of total fees were attributed to the directed Pacific cod fishery.

While the fee liabilities for individual vessels are confidential, staff can estimate the amount of Observer Program funds that might have been generated by activity of the vessels that were voluntarily placed in full coverage during those years. The owners of those volunteer vessels (and their processing partners) were responsible for those payments in 2013 and 2014, but those fees would not have been levied if the considered action had been implemented at that time. Thirty-eight different CVs volunteered for full coverage in 2013 or 2014 and actively fished in the BSAI non-pollock trawl fisheries. AKFIN data report that 33 volunteer vessels accounted for 56.9 percent of ex-vessel revenues from BSAI non-pollock fisheries in 2013, and that the 30 volunteer vessels accounted for 56.6 percent of those revenues in 2014.²² Applying those percentages to the total BSAI trawl CV fleet’s partial coverage fee liabilities reported above, the analysts estimate that volunteer vessels’ activity generated approximately \$153,000 to \$160,000 in payments to the partial coverage program during each of those two years (Table 10). By comparison, NMFS collected a total of \$4,251,452 in observer fees in 2013, and \$3,458,716 in 2014, across all management areas and gear types (Table 2-1 in NMFS 2014b, and Table 2-2 in NMFS 2015).

Table 10 Full coverage “volunteer” CV activity, ex-vessel revenues in BSAI non-pollock trawl fisheries, and estimated volunteer fee liability, 2013 and 2014

	# Vessels			Volunteer Ex-Vessel (\$)	Vol. % Total Ex- Vessel	Est. Vol. Fee Liability (\$)
	Total	Volunteers	Active Volunteers			
2013	52	40	33	13,330,897	56.9%	153,252
2014	50	37	30	14,463,732	56.6%	159,914

Note: The difference between Volunteers and Active Volunteers reflects vessels whose full coverage request was approved by NMFS, but did not actually participate in non-AFA BSAI trawl fisheries in the following year.

Source: ADFG/CFEC Fish Ticket data compiled by AKFIN in Comprehensive_FT.

3.6 Impacts of Alternative 1 – No Action

For reference, the regulations that define the existing full and partial coverage categories are cited in Section 2.1. The structure of the partial coverage fee liability system is described in Section 3.5.1.

²² Volunteer vessels did not make any deliveries to the mothership sector in 2013 or 2014. However, if they had those revenues would not have been subject to the partial coverage fee for those deliveries. CVs delivering unsorted codends to motherships are not required to register their trip in ODDS or carry an observer because the mothership is in the full coverage category.

3.6.1 Management Considerations

Under NMFS's current policy that allows BSAI CV owners to annually volunteer for full coverage, a request must be submitted to the agency by December 1 of the year prior to the year in which the choice applies. The first fishing year under this policy was 2013, and December 1 was initially selected as the deadline in order to accommodate Council and industry requests that were first made late in 2012. December 1 provided the minimum amount of time in which NMFS could make the necessary revisions to the CAS and ODDS. Because this allowance to voluntarily select full coverage has been done through a policy, NMFS cannot impose or enforce any deadline. All administrative process for this policy has been, and continues to be, done through a cooperative effort between NMFS and the CV owners or their representatives. Most CV owners have submitted their request to be placed in full coverage by the December 1 deadline. However, in each year, a number of vessel owners have not submitted the requested information by that date, and some have waited until after January 1 to request placement in full coverage. For example, NMFS approved placement of 31 trawl CVs in full coverage for the 2015 season. Five of those vessel owners requested placement in full coverage after December 1, 2014, and NMFS approved those requests. However, one vessel owner who requested placement in full coverage after January 1, 2015, was denied because the vessel had already commenced fishing for the year. Late requests can be difficult to accommodate at a time of year when staff are preparing for many administrative aspects that come at the start of a new fishing year.

NMFS projects effort in the partial coverage fishery for the upcoming year based on historical effort and adjustments for known changes to the number of vessels in a particular observer selection stratum (this process is further described in Section 3.7.1.2). The list of vessels that volunteered for full coverage differed in 2013, 2014, and 2015, so the current practice of removing vessels that volunteered in the previous year from the effort projection database is not ideal. Forty-seven unique CVs have volunteered for full coverage in the BSAI between 2013 and 2015. Twenty-four (51%) vessels have volunteered in all three years. Twenty-three (49%) CVs that volunteered at least once have *not* volunteered in all three years. Of those 23 vessels, 13 (28%) have volunteered in two of the three years; and 10 (21%) have volunteered in just one of the three years.

NMFS staff has informed the analysts that maintaining a list of CVs that have volunteered for full coverage is not overly burdensome when requests are submitted on time. If a larger number of vessels were to take advantage of the existing NMFS "volunteer" policy in the future, the increase in staff time spent tracking vessel's annual selections would not be significant. However, vessels that voluntarily select full coverage under the existing policy are required to continue logging their trips into ODDS. Staff reports that NOAA OLE has had to spend time tracking and contacting vessels that had failed to comply with this requirement. An increase in participation under the existing policy might pose a greater administrative cost on enforcement officers, on the margin.

Regardless of whether the Council recommends the No Action alternative or one of the action alternatives, NMFS staff has noted that some changes in catch estimation procedures are necessary to remove sources of potential data bias. NMFS's proposed changes are discussed in Section 3.7.1.1. In short, the agency plans to separate the partial and full coverage strata of observer information in the CAS.

3.6.1.1 Transmission of Observer Data

No changes to observer data entry equipment and transmission requirements are proposed under any of the alternatives. This section describes the status quo requirements, and identifies one circumstance under which an additional regulatory amendment may be warranted as part of this action, or as a separate action.

- Partial coverage: Observers deployed on vessels in the partial coverage category are equipped by the observer provider with a computer that has the NMFS-approved data entry software (ATLAS) installed on it. Observers transmit data to NMFS from these computers at the completion of a trip by utilizing electronic communications available in the port. Vessels in the partial coverage category do not need to provide a computer for observers to enter or transmit observer data electronically. However, as noted below, under existing regulations, some of these vessels continue to be required to provide a computer for observer data entry.
- Full coverage: Observers deployed in the full coverage category may or may not have access to a computer provided by the vessel owner, and may transmit data electronically to NMFS from the vessel or processing plant, or they may submit data by fax.

Electronic submission of observer data to NMFS benefits the fishing industry, observers, and NMFS. Built-in quality assurance measures prevent inaccurate data from entering NMFS databases, which reduces the time spent correcting errors during the debriefing process. Electronically submitted data are available to the fishing industry and fishery managers more quickly than data submitted by fax. Electronic transmission also reduces administrative costs for NMFS.

Faxed observer data is submitted by the observer upon completion of the fishing trip. The processing plant receiving the vessel's catch usually maintains a fax machine for this purpose, but this is often difficult in remote ports or onboard a stationary floating processor due to limited connectivity or processing in multiple locations over a season. NMFS estimates the amount of staff time needed to hand-key faxed observer data is approximately three hours for each observed trip, at an estimated cost of \$50 per hour. This estimate varies according to the amount and type of data received.

In general, moving vessels from the partial coverage category to the full coverage category could increase the amount of observer data that is submitted to NMFS by fax, thereby increasing NMFS's administrative costs and slowing access to observer data. However, some of the CVs that would be affected by the action alternatives have been in the full coverage category under NMFS's policy since 2013, which means that some impacts described in this section are already occurring under the status quo.

Under the No Action alternative, observer data entry and transmission procedures will differ among several categories of BSAI trawl CVs:

Non-Pollock CVs in partial coverage. As noted above, observers deployed on vessels in the partial coverage category are equipped with a computer to use for observer data entry, regardless of vessel length. However, CVs that are $\geq 125'$ LOA also are required to provide a computer with ATLAS installed on it, and to provide for daily transmission of observer data to NMFS (§679.51(e)(1)(iii)). When these vessels are in partial coverage, observers enter data on the computer issued directly to them by the

observer provider, and do not use a computer provided by the vessel owner. At the time of Observer Program restructuring, NMFS did not recognize the need to re-evaluate the equipment and data transmission requirements for CVs in the partial coverage category that are $\geq 125'$, or for small CPs placed in partial coverage. NMFS is currently developing a proposed rule to address this issue for the small CP sector, but that rule would not affect equipment and transmission requirements for CVs. *The Council may wish to request further analysis of an option to remove existing computer and data transmission requirements for BSAI trawl catcher vessels that remain in partial coverage under the action alternatives for this action.*

Non-Pollock CVs voluntarily in full coverage. Transmission procedures for three categories of volunteer CVs are described below:

$\geq 125'$ LOA: As noted above, under existing regulations owners of CVs $\geq 125'$ LOA are required to provide a computer with the ATLAS software and a communications system that allows daily transmission of observer data to NMFS.

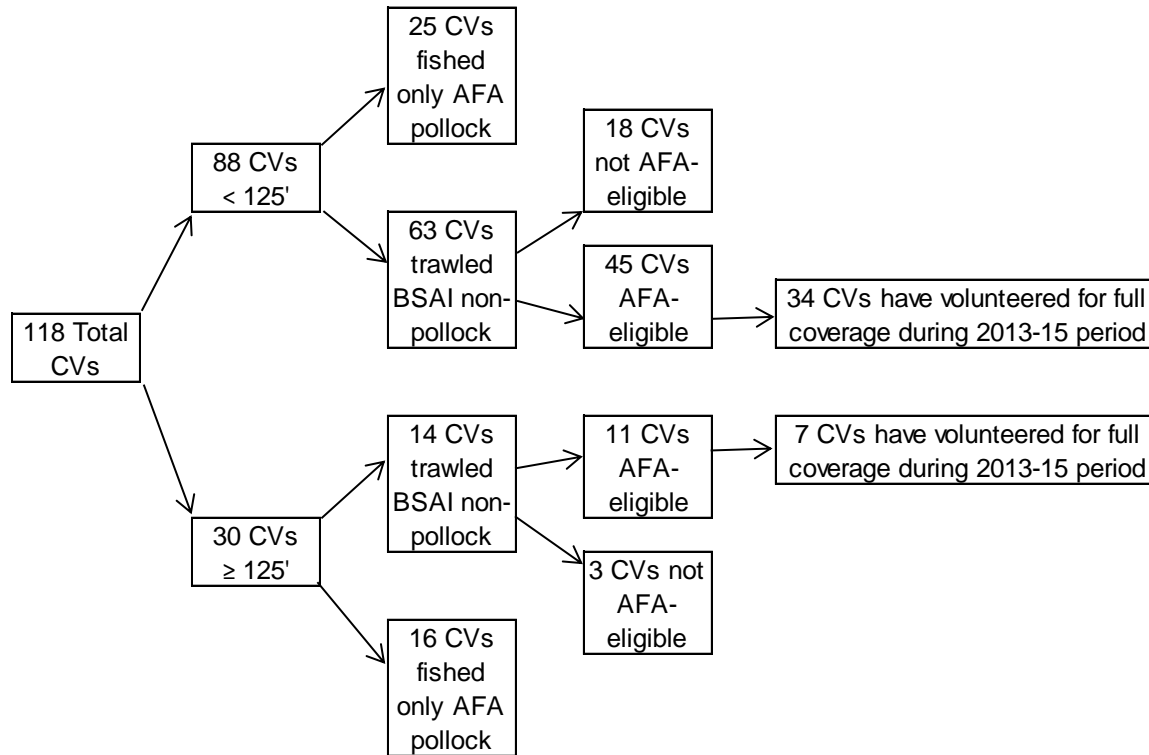
$< 125'$ LOA: Trawl CVs that are $< 125'$ LOA are not required to provide a computer with ATLAS software or observer data transmission while participating in the BSAI non-pollock fisheries. Observer data from these vessels are submitted to NMFS by fax, unless the vessel owner voluntarily provides a computer and at-sea data transmission. Vessel owners voluntarily provide a computer and at-sea data transmission for a variety of reasons, including faster access to observer data, pressure from a processor to relieve the need to maintain a fax machine, or the presence of existing equipment required for participation in different limited access program (Central GOA Rockfish Program, for example).

$< 125'$, AFA-eligible: Under the Council's recent Bering Sea salmon PSC action (BSAI Amendment 110), the requirements for a computer with ATLAS software installed would be extended to trawl CVs that are $< 125'$ LOA while they are directed fishing for pollock in the BS. These vessels would not be required to provide for daily at-sea transmission of observer data. Unless the vessel owner voluntarily facilitated at-sea transmission, the observer would transmit data to NMFS upon return to port, either by transferring their data to the computer provided to the observer in the processing plant, or through some other means.

Figure 2 maps the BSAI CV fleet by vessel length, fishery participation, AFA-eligibility, and whether or not a CV has volunteered for full observer coverage in at least one year since NMFS's policy began in 2013. The figure focuses on tracing vessels that participate in the limited access non-pollock BSAI trawl fisheries, which are currently in the partial coverage category. Overall, 118 CVs were active from 2010 through 2014. Of the 30 vessels greater than 125' LOA, 27 were AFA-eligible; 16 of those vessel fished exclusively in the AFA pollock fishery, leaving 14 of the larger CVs that trawled for Pacific cod and other non-pollock species. Eleven of those 14 CVs were AFA-eligible, and seven of those AFA-eligible CVs were among those that have volunteered for full coverage in the past. Of the 88 vessels of less than 125' LOA, 70 were AFA-eligible; 25 of those vessel fished exclusively in the AFA pollock fishery, leaving 63 of the smaller CVs that trawled for Pacific cod and other non-pollock species. Forty-five of those 63 CVs were AFA-eligible, and 34 of those AFA-eligible CVs were among those that have

volunteered for full coverage in the past. Figure 2 shows that only 41 of the 46 CVs that volunteered for full coverage actually made landings in the BSAI non-pollock fisheries during the analyzed time period.

Figure 2 Map of BSAI trawl CVs by vessel length, fishery participation, AFA-eligibility, and history of volunteering for full observer coverage (vessels active in the BSAI since 2010)



As long as NMFS continues the policy of allowing vessel owners to request full coverage on an annual basis, the agency might be concerned about two potential impacts on the Observer Program: (1) the amount of data that must be received by fax and hand-keyed, which takes longer to enter the management system and can be more costly; and (2) the extended length of time that it takes to receive data that cannot be transmitted while at sea. Unless vessel owners voluntarily provide a computer and transmission capabilities, any non-AFA vessel of less than 125' LOA that volunteers for full coverage would likely represent both kinds of impacts. Note that no non-AFA vessel has volunteered for full coverage, to date. Under new regulations (BSAI Amendment 110) observers on AFA-eligible CVs of less than 125' LOA that move into full coverage would have a computer and ATLAS software, but data transmission might not be possible until returning to port. NMFS would not have to hand-key data from these AFA-eligible vessels, but without at-sea transmission capabilities supplied voluntarily by the vessel, long full coverage trips could create data lags. The analysts do not have empirical information that would help to determine the likelihood of vessel owners supplying computers and at-sea transmission capabilities to full coverage observers. However, it seems reasonable that AFA-eligible vessels would not only have this equipment onboard, but would also have a private interest in supplying inseason managers with timely and accurate data. After all, some of those vessel owners are currently choosing to bear *additional* full coverage payments in order to supply better information for halibut PSC management.

There is currently no restriction on the number and type (AFA vs. non-AFA) of CVs that can voluntarily request full coverage. Therefore, in the limit, the impacts on observer data processes would be greatest if all CVs less than 125' LOA began volunteering for full coverage, and the greatest impact would result from non-AFA vessels electing full coverage. As noted above, of the 63 CVs that are less than 125' LOA that trawled for BSAI non-pollock species during the analyzed period, 45 are AFA-eligible vessels that will soon be required to provide full coverage observers with a computer (BSAI Amendment 110). Of those 45 CVs, 34 have volunteered for full coverage in at least one year since 2013. The remaining 29 non-pollock vessels of less than 125' LOA – 11 AFA-eligible CVs that have never volunteered for full coverage, and 18 non-AFA vessels – could theoretically volunteer for full coverage, but seem less inclined to do so. Of those 29 vessels, the 11 AFA-eligible CVs are somewhat more likely to request full coverage based on their fishing plans and the requirements of their respective AFA cooperatives.

Having said all that, the No Action alternative does not directly increase the number of CVs that would operate under full coverage in future years. NMFS's current policy merely allows for an annual voluntary choice. While it is possible that more vessels would volunteer for full coverage in future years, the trend in the three years since the policy began in 2013 has been fewer vessels volunteering in each subsequent year (see Table 1 in Section 3.5.1). It is unlikely that the number of CVs volunteering for full coverage will continue to decline at the current rate, year-on-year, but it is possible that experience and experimentation is leading towards a more stable state where vessel owners have determined whether or not full coverage suits their individual and cooperative business plans. Under Alternative 1, and absent any major changes in regulations that govern AFA cooperatives and their halibut PSC limits, the analysts consider it probable that the number of CVs volunteering for full coverage will remain at, or slightly below, current levels.

3.6.2 Impacts on Vessel Owners and Fishery Participants

If the Council selects Alternative 1, vessel owners who continue to volunteer for full coverage will continue to be liable for both full coverage and partial coverage observer costs. Relative to the action alternatives, the continuing liability for partial coverage fees represents an impact of the No Action alternative. As reported in Section 3.5.2, the BSAI CVs that volunteered for full coverage in 2013 and 2014 were also assessed partial coverage fee liabilities of an estimated \$313,000 over the two years (Table 10); half of that total liability would have been paid by the processors. A simple vessel average of the estimated total fee liabilities paid in those years – divided by two to account for the processor paying half of the fee – suggests that the average volunteer CV paid around \$2,300 to the partial coverage program in 2013 (33 active volunteer CVs) and around \$2,650 in 2014 (30 active volunteer CVs). Obviously, few vessels would have paid precisely the average, since partial coverage fee liability is a function of individual landings (recall that vessels pay 0.625% of their ex-vessel, based on the standard pricing model described in Section 3.5.1). The range of one-year ex-vessel revenues for the 38 unique CVs that volunteered for full coverage and trawled in BSAI limited access fisheries includes vessels that grossed less than \$10,000 and vessels that grossed more than \$1 million. In both years, the volunteer vessels' average revenues exceeded the median, meaning that more than half of the volunteer vessels would have paid fees that are less than the averages estimated above.

Hired skippers and vessel crew are typically compensated on a share-based system, determined by the vessel's gross revenue. Certain costs are typically deducted "off the top" before crew shares are

calculated. Staff does not have information about private compensation agreements, but it is reasonable to consider that observer costs might be among the vessel expenses that are taken out before payment. Under the status quo, vessels that volunteer for full coverage could be deducting both full and partial coverage observer costs, thus reducing compensation. It is possible to imagine that, on the margin, a vessel owner might eschew voluntary full coverage because of the net income reduction that paying two types of observer fees would cause.

While Alternative 1 would continue to impose additional payments on volunteer vessels, relative to the action alternatives, the status quo provides the fleet with the maximum possible amount of flexibility in choosing their observer coverage for the upcoming year. Vessel owners are currently able to submit their request for full coverage as late as December 1 of the preceding year, and can change their coverage category selection on an annual basis. Vessel owners may benefit from this flexibility, as they might use the time between the proposed decision deadline under Alternative 3 (July 1) and the existing deadline (December 1) to develop a more complete fishing plan. For example, vessel owners might not know how much they plan to fish in the BSAI non-pollock trawl fisheries, or whether they plan to deliver primarily to shoreside plants or motherships. An AFA-affiliated vessel that plans to spend more time in limited access (partial coverage) fisheries and delivering shoreside²³ might have a greater incentive to hedge against extrapolated halibut PSC rates from the rest of the partial coverage fleet, and would have more information when weighing the additional cost of paying a full coverage daily rate. Vessel owners' willingness to pay for full coverage could change from year to year based upon the make-up of the limited access fleet. The OAC noted that there are latent permits in the BSAI non-pollock fishery, and an influx of new vessels into the fishery could conceivably increase the risk that the partial coverage fishery would record higher PSC rates, in aggregate, as less experienced vessels increase their participation. However, these practices push NMFS staff to the limit of what is practicable in terms of reprogramming the CAS and ODDS before trawling begins in January, and causes uncertainty in drafting the next year's ADP each summer.

3.6.3 Impacts on the Observer Program

From a fiscal perspective, the No Action alternative is not likely to adversely affect the Observer Program. As noted in Section 3.6.2, the activity of vessels that volunteered for full coverage in 2013 and 2014 generated an estimated \$313,000 in partial coverage fees over the two years, and no partial coverage deployments were made in that subsection of the fleet. In each of those two years, the volunteer CVs' activity represented roughly 46% of total BSAI non-pollock CV trawl effort in terms of fishing days, or 1,128 out of 2,476 days in 2013, and 1,178 out of 2,542 days in 2014 (3.5.2). Had these vessels been fishing under the large vessel trip-selection stratum of the partial coverage category, which had a trip selection rate of 24%, the partial coverage program would have had to cover in the neighborhood of 550 additional days with no commensurate increase in funding.²⁴

²³ Recall that vessels delivering to motherships would not have to carry an observer and would not be liable to pay a partial coverage fee on their mothership deliveries.

²⁴ The estimate of 550 results from simple multiplication of the volunteer vessels' effort in fishing days (1,128 + 1,178) by the selection rate of 24%. This is clearly a crude estimate, noting that vessels are selected for observation on a trip-by-trip basis, and selected trips may vary in length – not to mention that selected trips might be shorter (or longer) than unobserved trips if any "observer effect" were to alter the skipper's fishing plan. The data provided for this analysis contained total fishing days per vessel per year, and did not include trip-level information. Therefore, the analysts would only be able to divide the volunteer fleets' total fishing days by the average partial coverage trips

Section 3.6.2 previously noted the administrative challenges that Observer Program staff face in accommodating requests for voluntary full coverage as late as December 1 (and sometimes later). The ADP for the upcoming year is finalized by December, so even compliant requests that fall near the existing deadline require urgent attention in order to finalize the plan (additional information on NMFS's administrative processes and deadlines are described in Section 3.7.1.2). The precision of effort estimates in each partial coverage stratum is crucial to the success of the plan. Projected effort is used to determine each stratum's selection rate. Having determined a selection rate, higher than expected effort could mean that NMFS runs out of money to deploy partial coverage observers before the end of the year; lower than expected effort could mean that the Observer Program does not collect the best possible level of data.

Since the NMFS policy that allows vessels to volunteer for full coverage is already in effect, Alternative 1 would not directly reduce or increase the number of partial coverage observer-days needed to monitor the BSAI non-pollock trawl fisheries, relative to the status quo.

3.7 Impacts of the Action Alternatives

This section addresses the probable impacts of the action alternatives on NMFS fishery managers (Section 3.7.1), full coverage observer providers (Section 3.7.2), fishery participants (Section 3.7.3), and the Observer Program itself (Section 3.7.4). For analysis, the action alternatives are grouped by the extent to which they would potentially move trawl CVs from partial to full coverage for their BSAI non-pollock limited access fishing. Alternative 2 and Alternative 3 Option 1 are similar in that they directly regulate AFA-eligible vessels. Alternative 2 would require AFA CVs to operate under full coverage for all BSAI trawl fishing. Alternative 3 Option 1 makes the move to full coverage voluntary for AFA CVs; if every eligible CV chose full coverage, then that alternative could have the same effect as Alternative 2 (depending upon the suboption selected). Selecting Alternative 3 without Option 1 – “Alternative 3 (no option)” – expands the universe of directly regulated vessels to any CV that trawls in BSAI partial coverage (non-AFA) fisheries, regardless of whether the vessel is eligible to be affiliated with an AFA cooperative. In the limit, Alternative 3 (no option) could result in the largest shift of vessels from partial to full coverage, as more vessels would meet the criteria to select full coverage.

If the Council selects Alternative 3, with or without Option 1, it must also select one of the two suboptions. Suboption 1 allows eligible vessel owners to choose full coverage for the upcoming year on an annual basis, with eligibility defined by whether or not the Council chooses Option 1. Suboption 2 would require eligible vessel owners to make a one-time decision as to which coverage category their vessel will operate under when fishing in the BSAI during all future years. *The Council should clarify whether all directly regulated vessels must make this one-time decision by a single specified date – prior to the first year under the regulations that would implement Alternative 3 – or if a vessel owner can wait to make this decision in any future year, but may only make it once.* The relative impacts of selecting either of the two suboptions are discussed primarily in Section 3.7.1.2 (Management Considerations – Administrative Process and Deadlines) and in Section 3.7.3.3 (Impacts on Vessel Owners and Fishery Participants – Effects of Suboptions 1 and 2).

length of 3 to 5 days (NMFS 2015). Converting fishing days to trips, multiplying by the 24% selection rate, and reconverting to fishing days would yield the same estimate of 550 days.

In weighing the action alternatives, the Council may wish to consider how its recommendation for this action might fit with the GOA Trawl Bycatch Management Program that is currently in the early stages of development²⁵. The Council is continuing to evaluate whether all GOA trawl CV fisheries should be in the full observer coverage category, regardless of what other changes might be made to the management of GOA trawl fisheries²⁶. Ultimately, the Council will need to determine whether harmonizing observer coverage requirements on all Alaska trawl CVs presents significant management benefits and cost savings, whether a particular outcome in the GOA action might influence the choices that BSAI trawl CV owners make about their coverage options at some point in the future, or whether the two issues are substantively independent. The second of those three considerations might influence the Council's judgement as to where the realized impacts of Alternative 3 (no option) will fall within the range of potential impacts. For instance, one might expect the owners of non-AFA CVs that operate in both the GOA and the BSAI to wait until it is determined whether full coverage is required in the GOA before choosing full coverage in the BSAI.

3.7.1 Management Considerations

3.7.1.1 Necessary Changes in NMFS Catch Estimation Procedures

Alternatives 2 and 3 would move a set of trawl CVs fishing in the BSAI into the full coverage category: all AFA trawl CVs under Alternative 2, or trawl CVs that choose full coverage under Alternative 3. Alternative 3 Option 1 *could* result in all BSAI trawl CVs moving to partial coverage, but that outcome is unlikely, for reasons discussed throughout Section 3.7. These alternatives would likely mean that, in any case, some vessels will remain in partial coverage after amended regulations are implemented, including non-AFA trawl CVs under Alternative 2, and any vessel that did not choose full coverage under Alternative 3. These alternatives would result in both full and partial coverage trawl CVs participating in the same fisheries. Moving vessels into full coverage has the potential to improve catch and bycatch estimates by increasing the amount of observer data; however, estimation processes must delineate between full and partial coverage in order to avoid a potential bias.

NMFS Catch Accounting System (CAS) uses post-stratification procedures to combine the observer data and industry reported information to create estimates of total catch. For vessels in the full coverage stratum, the estimate of PSC is vessel specific, and is the observer-based estimate of at-sea discard for a particular species. In the partial coverage stratum, observed information from the at-sea samples is used to create discard rates (a ratio of the estimated PSC to the estimated total catch in sampled hauls) that are applied to the industry-supplied landings of retained catch. The extrapolation from observed vessels to unobserved vessels is based on varying levels of aggregated data (post-stratification) that are described in more detail by Cahalan et al. (2014).

²⁵ The most recent discussion paper on that action (October 2015) can be found at the following address, and contains references to earlier papers on the development of the GOA action:
<http://npfmc.legistar.com/gateway.aspx?M=F&ID=210f1587-0e38-47fa-af4d-3dcd04edf3ac.pdf>.

²⁶ A separate discussion paper was prepared for the GOA observer issue (October 2015). It is available at:
<http://npfmc.legistar.com/gateway.aspx?M=F&ID=918c7758-9e37-4685-aefb-c47ef6ab874d.pdf>.

From an estimation perspective, the full and partial coverage categories are two distinct sampling strata with different sampling probabilities (i.e., 100%, and less than 100%²⁷). In order to use the observer data from these sampling strata appropriately in CAS, the same strata need to be created, defined, and programmed into the estimation process so that the data are not “pooled” to generate the estimates. Without defining this stratification in CAS, observer data from vessels in full coverage that have a 100% selection probability would be mixed with data from other vessels in the partial coverage stratum, which have less than a 100% selection probability. This would result in the estimates being biased toward the observations with the higher selection probabilities.

The estimation issue was raised by the observer science committee in the final 2013 ADP (NMFS 2013, Appendix 2.4). NMFS has been accommodating voluntary full coverage for a subset of BSAI CVs since 2013, but the specifics of how a regulatory amendment would be structured were not certain at the time, and NMFS has not yet completed the necessary programming in CAS to separate the two strata.

This source of bias in the estimation method needs to be addressed under any selected alternative, including the No Action alternative. Therefore, under any selected alternative, NMFS will modify the stratification methods in CAS to match the definitions of full and partial coverage categories for BSAI CVs that emerge from this action (ongoing modifications may be required under the suboptions to Alternative 3, which might allow vessels to select or re-select their coverage category in future years). The result of the programming changes in CAS will mean that estimates of PSC are generated using data that are specific to full coverage or partial coverage vessels. For example, CAS will generate estimates of halibut PSC for vessels in the full coverage stratum using non-pelagic trawl gear and targeting Pacific cod in the BSAI. Estimates of halibut PSC for vessels in the partial coverage stratum in the BSAI will be generated separately. The two estimates will then be added together, resulting in a total amount of halibut PSC in the BSAI non-pelagic trawl Pacific cod fishery that can be used for in-season management purposes. Moving away from catch estimation through the “blending” of full and partial coverage data might also remove an incentive for vessels to opt to remain in partial coverage. With blended catch estimation, an unobserved partial coverage vessel might expect to benefit from the bycatch performance of full coverage fleet; that opportunity would not be available under the anticipated changes in catch estimation procedures.

3.7.1.2 Administrative Process and Deadlines

Alternative 2

Alternative 2 would place all AFA trawl CVs in the full observer coverage category by regulation. No additional administrative processes, deadlines, or recordkeeping and reporting requirements would be necessary under this alternative, beyond those that already exist for full coverage vessels. In short, Alternative 2 would simplify the ADP process – described below – by removing uncertainty in the annual composition of the observer coverage strata.

²⁷ For 2015, the partial coverage sampling probability for the vessels affected by this action is set at 24% of trips registered in ODDS.

Alternative 3

Alternative 3 would allow the owner of any BSAI trawl-endorsed CV that is currently in partial coverage to voluntarily select full coverage for all of the vessel's BSAI fishing. Option 1 would limit this allowance to trawl CVs that are affiliated with an AFA cooperative. The Council has defined two suboptions, one of which would need to be selected along with either Alternative 3, or Alternative 3 Option 1. Suboption 1 would allow vessel owners to make an annual choice to be in full coverage, as is currently permitted by NMFS policy, with a notification deadline of July 1. Suboption 2 would require the owner to make a one-time choice as to whether the vessel is in full or partial coverage.

Suboption 1

If Suboption 1 is selected, both Alternative 3 and the Option to Alternative 3 would require regulations to govern the annual process of vessel owners notifying NMFS that they wish to be placed in full coverage in the upcoming year. The main component of these regulations would be the specification of a deadline for notification to NMFS. Annual modifications to the CAS and ODDS would also be required, in order to reflect the correct assignment of observer coverage category for any vessel owner choosing to be in full coverage. The notification to NMFS of the choice (request) to be placed in full coverage would be a simple form that a vessel owner could submit to NMFS. The form would be made available on the NMFS Alaska Region website.

Suboption 1 would establish a notification deadline of July 1 in the year prior to the year in which the annual choice applies. NMFS and the OAC had recommended a July 1 deadline because it would allow the agency to know which vessels will be in the partial coverage category in time to incorporate that information into the ADP for the upcoming year. The deadline would need to be strictly enforced, as opposed to the status quo NMFS policy that attempts to accommodate late requests when possible. Asking vessel owners to make a relatively early decision (July 1, as compared to December 1) and then allowing them to reverse that decision could become burdensome to agency staff, as they would be required to spend time considering letters of petition and adjusting the projected size of each observer stratum.

The ADP is a key document in a continuous cycle of planning, deployment, and evaluation. It describes how NMFS will assign observers to partial coverage vessels and processors in a particular year. NMFS scientists start preparing the draft ADP in June of the year prior to the year for which the ADP applies (i.e., June 2015 for the ADP that covers the 2016 fishing year). The draft ADP is released in early September and presented to the Groundfish Plan Teams later in that month. The Council, its Scientific and Statistical Committee (SSC) and its Advisory Panel (AP) review the ADP at their October meeting, and the public is provided an opportunity to comment. The Council provides recommendations to NMFS about the draft ADP. NMFS considers the Council's recommendations and public input and prepares a final ADP by December. The provisions of the final ADP are implemented by NMFS starting in January of each year. The performance of observer deployment under the previous year's ADP is evaluated through an annual report released by NMFS in May of each year.

A key decision made through the ADP process is the specification of the anticipated "selection rate" or "selection probability," which, for vessels in the trip selection pool, is the probability that a particular

fishing trip logged in ODDS will be selected for observer coverage. For example, in the 2015 ADP NMFS established anticipated selection probabilities of 12% for the small vessel trip-selection pool and 24% for the large vessel trip-selection pool (these pools, or “strata,” are defined in Section 3.5.1 of this paper). The selection probability must be sufficient to provide adequate management and biological information on the partial coverage fisheries. The final selection probabilities are programmed into ODDS and used to select a random sample of fishing trips for observer coverage throughout the year.

The analysis conducted to prepare the draft ADP uses the projected budget and projected fishing effort (number of fishing trips) by vessels in the trip selection pools to recommend a selection probability that would accomplish optimal use of the available budget. As described in 2015 ADP, and particularly in Appendix C, NMFS uses actual fishing effort from a previous year with some specific adjustments to project fishing effort in the upcoming year (NMFS 2014a). For example, for 2015, fishing effort in 2013 was used to project fishing effort in 2016. Modifications to the effort database were made to (1) remove trawl CVs that volunteered for full coverage in 2014, and (2) add small CPs expected to be eligible to be in partial coverage in 2016. These modifications refined the 2013 effort data for two known exceptions to the general requirements for which vessels are in the partial coverage category.

An accurate projection of expected fishing effort by vessels in the partial coverage category is an important element in the determination of the appropriate selection probability. For a given selection probability, if actual fishing effort is more than the amount that was projected, NMFS could run out of money to deploy observers before the end of a year. If actual fishing effort is less than projected, the Observer Program would not achieve the level of observer coverage that could have been achieved with the available budget. Running out of money before the end of the year is a more serious problem because this would undermine the goal of achieving a randomized sampling of all fishing that occurs during a year. Incorporating the most accurate possible information on projected effort into the analysis prepared for the draft ADP supports the goal of achieving optimal coverage under the budget constraint.

Information about which vessels should be removed or added to the fishing effort projection database must be available to NMFS by July 1 of each year to incorporate this information into the ADP process. Required milestones and deadlines for the draft ADP throughout the remainder of the year allow very limited opportunities for further refinement of projected effort in the partial coverage category in the upcoming year.

NMFS noted the importance of the effort projections in the ADP process in its recommendations in the Observer Program 2014 Annual Report (NMFS 2015). Specifically, NMFS agrees with the Observer Science Committee recommendation that the method for projecting effort should be improved, and that NMFS should develop better tools such as models to predict fishing effort. One of the ways to improve projections of fishing effort in the upcoming year is to correctly modify the effort database for known additions or removals of vessels from the partial coverage category.

NMFS made a similar recommendation for a July 1 deadline under the Council’s recent action revising allowances for small CPs to be placed in partial coverage. The Council approved NMFS’s recommendation, and the July 1 deadline will be incorporated into the proposed rule for that action. The placement of additional small CPs in partial coverage would add effort to the partial coverage category in

the upcoming fishing year. Greater than expected fishing effort in a particular year increases the risk of reaching the budget for observer deployment for a particular year before the end of the year.

In addition to the impact on the ADP process, the timing of the notification deadline has a relatively minor effect on administrative costs for NMFS. Both the CAS and ODDS would need to be updated each year to reflect the list of vessels volunteering to be in full coverage, and the CAS must be reviewed to ensure that the estimation methods match the stratum definition. NMFS is already incurring these relatively minimal administrative costs under the existing policy – where CVs are allowed to volunteer for full coverage up until December 1 – and would not recommend an earlier deadline solely on this basis. However, establishing a July 1 deadline would remove the administrative task of updating the CAS and ODDS from the time of year that is already the busiest, when NMFS is receiving other annual notifications, issuing permits for the upcoming year, and revising fishery applications.

Suboption 2

Suboption 2 allows a one-time voluntary selection to be in full coverage. That selection would apply in all future years. The Council could set up this choice in one of two ways. First, all vessels that are eligible to select full coverage – as determined by whether or not Option 1 is selected along with Alternative 3 – could have to make a permanent choice on the same specified date after implementation of the final rule. Second, the any eligible vessel could volunteer for full coverage at any point in the future, and that selection would apply to that vessel in all future years. Under the second scenario, NMFS might require that the one-time selection be communicated to NMFS prior to July 1 of the year preceding the first fishing year in which the vessel will operate in the full coverage category, for reasons described above under Suboption 1.

If the Council wishes to pursue Suboption 2, it should specify whether there would be any exceptions to the one-time choice. One possible exception, or opportunity to reverse a one-time choice that has already been made, could be if ownership of the vessel changed hands. NMFS would need to further analyze whether it could detect that a vessel was truly transferred to a separate and distinct entity, or whether a company had created a “paper” transfer meant solely to move the vessel into a new coverage category. Another possible exception could be if a “replacement vessel” is built. NMFS currently has administrative processes for tracking vessel replacement for AFA participants (due to maximum LOA restrictions that apply to AFA replacement vessels that will fish in the GOA). New vessel ownership or vessel replacement might alter the fishing plan for the vessel, and thus might cause an owner to think differently about the advantages or disadvantages of having that vessel in a particular coverage category.

If no exceptions are allowed, the selection of partial or full coverage would become something akin to an “endorsement” that is associated with the vessel. The particular method through which NMFS would keep track of this choice, once made, and impose it as a condition in the future might have complications that require additional discussion and analysis. With no exceptions allowed, Suboption 2 would save administrative costs associated with allowing an annual choice to be in full coverage. If exceptions are allowed, Suboption 2 could impose additional administrative costs associated with tracking the status of a vessel’s coverage requirements in future years.

3.7.2 Impacts on Full Coverage Observer Providers

The demand for full coverage observer-days would likely increase under Alternative 2, and could increase under Alternative 3. In conjunction with a separate Council action that considers moving GOA trawl CVs from partial to full coverage, staff spoke with representatives from each of the full coverage observer providers certified to work in Alaska to understand their current involvement in BSAI fisheries and to receive feedback on foreseeable challenges with meeting additional demand for their services. There are currently four active certified full coverage observer providers that compete for business in Alaska fisheries: Alaskan Observers, MRAG Americas, Saltwater, and TechSea. Observer companies contract directly with the vessel owners and operators in the full coverage category²⁸.

The need to service additional full coverage vessels in the BSAI represents a business opportunity for these private companies. Representatives from the full coverage providers generally felt positive about their ability to recruit and hire additional field staff as needed, assuming that the required observer training qualifications remain unchanged (i.e., observers do not need to be lead-level qualified, making them costly to recruit and train). Providers shared a consensus opinion that the greatest challenge would fall to NMFS in training new observers and debriefing additional trips. Providers noted that NMFS caps the size of observer training classes, which could slow the process of ramping up field staff capacity. One provider stated that their company currently finds itself turning away applicants, which would indicate that latent labor supply exists. Given that a change to the number of CVs that could potentially enter the full coverage category would be in development for one or more years prior to implementation, providers felt confident that they could grow to meet demand if necessary. Aside from hiring and training new observers, some full coverage demand might be filled by individuals who were previously employed by the partial coverage provider. That type of workforce realignment would depend on the level of observer days required for the remaining partial coverage fisheries.

Alternative 2 would place all AFA-eligible CVs in full coverage for their BSAI non-pollock trawl fishing. In total, 97 AFA CVs have been active since 2010, but only 56 of those have participated in the non-pollock trawl fisheries. Assuming that fleet dichotomy remains roughly the same, one can estimate the number of additional full coverage observers needed based on the historical non-pollock effort of AFA vessels that have not volunteered for full coverage. The analysts do not think it appropriate to take the total number of non-volunteer fishing days and divide by 100 – the average number of sea-days logged by an individual full coverage observer in 2014²⁹ – because many of these vessels would be prosecuting Pacific cod fisheries at the same time; a single observer could not work on multiple boats at once. In that manner, these estimates of additional required human observers are conservatively high, as observer providers could likely find *some* opportunities to move an individual observer from one boat to another within the course of a Pacific cod season.

²⁸ The pool of certified companies was reduced through competition from a high of 10 providers in 1991. The ability of a new provider to enter this market is uncertain. NMFS declined the last application from a new provider in 2012, mainly because the application coincided with the implementation of the restructured Observer Program and there were concerns about confusion that might be caused by a new provider and a new program being launched at the same time.

²⁹ In Section 3.5.1, this document references NMFS 2014 Annual Report (NMFS 2015) and personal communication with FMA Division staff to estimate that an individual full coverage observer was deployed, on average, for 100 sea-days in 2014.

- Fifteen AFA CVs have never volunteered for full coverage; six to nine of those vessels were active in the BSAI non-pollock trawl fisheries in any given year, from 2010 through 2014. That group of non-volunteer AFA CVs logged between 126 and 247 fishing days per year, with an annual average of 165 days, and per-vessel averages of between 27 and 41 days, depending on the year. If one assumes that all of those vessels would be deployed simultaneously, then six to nine additional full coverage observers would be needed to cover this segment of the BSAI non-pollock trawl fishery. If one assumes that an observer provider can shift staff resources among vessels to some extent, the required number of additional observers could be slightly lower (e.g., four or five).
- In 2014, five AFA CVs that volunteered for full coverage in 2013 returned to partial coverage for BSAI non-pollock trawling. Had Alternative 2 been in effect for those years, the effort by these “volunteer” vessels would have been added back into the full coverage category. This activity represents additional “non-volunteer” effort that is not captured in the first bullet point. In 2014, these five CVs fished between 23 and 59 days each, with an average of 37 days per vessel. Again, depending on the timing of Pacific cod participation, these vessels represent up to (but possibly fewer than) five additional full coverage observers that would be necessary to cover CVs that would not volunteer for full coverage under the status quo, but would be moved into full coverage under Alternative 2.
- It is important to note that not every “additional required observer” represents a new hire, and the requisite training by NMFS. Full coverage providers that contract with other fleets whose activity peaks at different times of the year (e.g., Amendment 80) might already have latent staff capacity that could be deployed during the Pacific cod seasons. Considering that possibility, the estimates here should also be considered “overestimates” of the need to hire and train new observers.

To sum up the above exercise, the analysts estimate that mandatorily moving all AFA-eligible CVs to full coverage could require as many as 14 additional human observers in a given year, though likely fewer because individuals could be shifted between vessels to a limited extent. Not all of these additional observers would necessarily be new hires, as full coverage providers might have latent staff capacity from fisheries that do not coincide with the BSAI limited access Pacific cod trawl season.

In regard to demand for full coverage observers, Alternative 3 Option 1 mainly differs from Alternative 2 in that the shifting of AFA-eligible vessels from partial to full coverage is done on a voluntary basis. If all AFA CVs chose to be in full coverage, the maximum anticipated effect would be the same as described above for Alternative 2. In other words, Alternative 2 is the upper bound of increased observer demand for Alternative 3 Option 1. It is unlikely that this upper bound would be reached, given that 15 of the 56 AFA CVs that have trawled for BSAI non-pollock species have had three annual opportunities to select full coverage and have not done so. In fact, the number of volunteer vessels has declined in each year that the NMFS policy has been in place. Assuming that the level of voluntary participation in full coverage is near, or approaching, its natural minimum – i.e., some vessels will always volunteer for full coverage, given the chance – the current demand for full coverage observers could be considered a lower bound. Under the status quo, the decision to volunteer for full coverage is likely influenced by the fact that it involves double-payment of observer fees. Alternative 3 Option 1 would alleviate the requirement to pay a partial coverage liability in addition to the full coverage daily rate. In that sense, one might expect a small increase in the number of vessels selecting full coverage, relative to the level under the current NMFS policy. The analysts do not have any empirical information upon which to base a specific estimate of increased observer demand, as the rate of opting into full coverage would likely depend on private

near- to medium-term business plans. It seems reasonable to assume that the number of AFA vessels selecting full coverage would be lower if the Council selects Alternative 3 Suboption 2, which makes the choice permanent. Vessel owners whose private cost-benefit analysis places them on the decision margin might be hesitant to commit permanently to what is typically the higher-cost choice (full coverage), when the benefits of full coverage are somewhat dependent on halibut PSC issues (abundance, avoidance technology) in future years.

Selecting Alternative 3 without Option 1 would open up the choice to be in full coverage to both AFA and non-AFA vessels. Though NMFS existing policy was directly responsive to testimony by AFA vessel owners, the policy never prohibited non-AFA vessels from making similar request. However, since 2013, no non-AFA vessels have done so. It is possible that this could change in the future, as Alternative 3 would remove the requirement to pay both the full and partial coverage costs, thus making the full coverage choice less costly. Future factors, perhaps unforeseen, could affect the eagerness of non-AFA vessel owners to choose full coverage. For example, if full coverage becomes a requirement in the GOA trawl fisheries, non-AFA vessels that also trawl in the GOA might desire full coverage for all of their trawl fisheries to make the intra-seasonal transition between areas more seamless from a coordination perspective. In fact, of the 18 BSAI non-pollock trawl CVs that are not AFA-eligible, all have been active in GOA trawl fisheries since 2010; all but three of those 18 vessels logged more fishing days in the GOA than in the BSAI.³⁰

The increase in demand for observers under Alternative 3 (no option selected) can be estimated based on the historical activity of the 18 non-AFA CVs that were active in BSAI non-pollock trawl fisheries. The estimated increase attributed to those 18 vessels should then be added to what was described above for Alternative 2 and Alternative 3 Option 1, since Alternative 3 (no option) allows *any* BSAI CV to select full coverage. The true maximum, though unlikely, should also consider entry into the fishery by CVs that acquire or utilize latent (or underutilized) BSAI trawl-endorsed licenses and select full coverage. Given the unlikelihood of such an event occurring on a large scale, this analysis is confined to vessels that have participated in the five most recent years.³¹ In any given year from 2010 through 2014, between five and 12 non-AFA CVs were active in the non-pollock fishery. The fewest number of days fished in this sector was 212 days (2014), and the greatest number was 435 days (2012). In terms of annual vessel-level effort, these vessels fished between 32 and 42 days per year. Based on these figures, it seems reasonable to assume that this fleet would require on the order of five to 10 full coverage observers that had not previously been necessary in that fishery.

³⁰ By comparison, only 21 of the 56 AFA CVs that trawled for BSAI non-pollock species have been active in the GOA since 2010. Thirteen of those 21 vessels logged more fishing days in the GOA than in the BSAI over the analyzed period.

³¹ The Council may wish to consider whether the development of a “catch share” style groundfish trawl fishery in the GOA might cause spillover effort into the BSAI limited access fisheries. The design of the Council’s GOA trawl program is currently under development. However, the result of that program is not likely to cause a large increase in BSAI trawl participation by trawl vessels that were historically dependent on the GOA, as the Council has considered the use of sideboards throughout the development process.

3.7.3 Impacts on Vessel Owners and Fishery Participants

3.7.3.1 Cost of Observer Coverage

This analysis finds that a given vessel's annual cost of being in full coverage will be greater than the cost of their annual partial coverage fee liability. The fishery participants who originally petitioned the Council and NMFS in 2012 to allow the existing "volunteer" policy said as much, noting that they were willing to bear additional costs in order to comply with their AFA cooperatives' halibut PSC management plans. The best available data on the daily cost of carrying a full coverage observer come from the Observer Program 2014 Annual Report (NMFS 2015). NMFS provides two estimates of full coverage rates: \$331 per day (trawl CVs, not specific to management area or fishery), and \$371 per day (includes variable costs such as observer travel, but is not particular to any vessel or processor sector). The methodologies behind these estimates are described in more detail in the Annual Report, and in Section 3.5.1 of this document. The annual fee liability for partial coverage vessel is 0.625% of gross ex-vessel receipts, calculated based on NMFS's published standard prices for each species (additional information on standard prices and fee collection is also included in Section 3.5.1 of this document).

This cost analysis focuses on 2013 and 2014 because NMFS's Annual Reports contain the actual partial coverage fees assessed on the BSAI non-pollock CV trawl sector for those years. The analysts are able to estimate several pieces of key information from those reported figures, include the amount of total BSAI partial coverage fee liabilities that would have been paid by AFA vessels that volunteered for full coverage.

Alternative 2

Under Alternative 2, vessels that were voluntarily carrying full coverage observers would continue to pay a daily rate for full coverage, but would be relieved of the need to continue paying the partial coverage fee liability based on their landings. Table 10 showed the estimated partial coverage fee liability associated with the 2013 and 2014 landings of AFA vessels that were voluntarily in full coverage. Under Alternative 2, volunteer vessel owners would have been responsible for half of that amount, which equates to \$76,500 in 2013 and \$80,000 in 2014. With 33 volunteer vessels active in 2013 and 30 volunteer vessels active in 2014, the average partial coverage savings per vessel under Alternative 2 would have been roughly \$2,300 and \$2,650 in those years, respectively. Individual vessel liabilities obviously vary across the wide range of vessel revenues, which are confidential. It should be noted, however, that ex-vessel revenues displayed a strong positive correlation with fishing days (correlation coefficient of 0.95). The analysts can report, however, that the highest earning decile among these vessels would have been alleviated from paying around \$6,400 per year in partial coverage fees. Vessels earning near the median would have paid around \$2,400 per year.

Volunteer AFA CVs would continue to pay the daily cost of full coverage, as they do currently. Volunteer CVs fished in BSAI non-pollock trawl fisheries for 1,128 days in 2013 and for 1,178 days in 2014. The average individual vessel's effort was 34 days per vessel in 2013, and 39 days per vessel in 2014 (Table 7). Using the high end of NMFS's estimated daily cost of full coverage (\$371), the volunteer CVs would

have paid a total of around \$418,000 and \$437,000 for observers.³² The average payment per vessel would have been around \$12,700 in 2013, and \$14,500 in 2014. Vessels in the highest earning decile, which are also the vessels that fished the most days, would have paid around \$33,000 per year for full coverage. Vessels earning near the median would have paid around \$13,000 per year for full coverage. Note that volunteer AFA CVs did not make any deliveries to motherships in 2013, so they would have been required to carry an observer for all of their activity (Table 9).³³

Under Alternative 2, AFA CVs that did not volunteer for full coverage would pay the daily rate of \$371 *instead of* the ex-vessel-based liability. In 2013, seven AFA “non-volunteers” fished for a total of 130 days in the BSAI non-pollock trawl fisheries, generating \$1,770,410 in ex-vessel revenues (Table 4 and Table 7). Based on that figure, their total partial coverage liability would have been around \$11,000. Had those vessels been in full coverage, their total observer costs would have been roughly \$48,000. In 2014, 12 AFA non-volunteers fished 357 days, generating \$4,848,347. Their total partial coverage liability would have been around \$30,300. Had those vessels been in full coverage, their total observer costs would have been roughly \$132,000. In aggregate, moving these vessels from partial to full coverage would have increased their observer costs from 0.625% of ex-vessel revenue to 2.72% of ex-vessel revenue.

Alternative 3 (Option 1)

As noted in Section 3.7.2, Alternative 3 Option 1 mainly differs from Alternative 2 in that the shifting of AFA-eligible vessels from partial to full coverage would be done on a voluntary basis. If all AFA CVs *chose* to be in full coverage, then the maximum anticipated cost impact would be the same as described above for Alternative 2. In effect, Alternative 2 forms an upper bound for the cost impacts of Alternative 3 Option 1. Section 3.7.2 further notes that this upper bound is unlikely to be reached, since 15 of the 56 AFA CVs that have trawled in the BSAI non-pollock fisheries in recent years have turned down three annual opportunities to volunteer for full coverage. The anticipated observer costs for the volunteer AFA CVs, listed under Alternative 2, serve as an approximate lower bound on the range of cost impacts of Alternative 3 Option 1. The number of vessels volunteering for full coverage has decreased in each year since the policy was created in 2013 (Table 1). Nevertheless, the size of the volunteer fleet – the set of AFA vessels that would likely choose to continue in full coverage under Alternative 3 Option 1 – may be approaching its natural minimum. Twenty-five AFA CVs have volunteered for full coverage in each of the three years. Selecting Alternative 3 Option 1 might mean that these 25 vessels are relieved of their partial coverage fee liabilities, and all other BSAI CVs’ observer costs remain at status quo levels.

Several other vessels that had volunteered for full coverage in only one or two of the three possible years might select full coverage if the relief from the partial coverage liability was the key decision factor at the margin. That decision would likely be based on the strength of the influence from their AFA cooperative and the vessel owner’s individual business plan, neither of which is known to the analysts. As a reminder, if this hypothetical vessel were a median earner among volunteer AFA CVs, it would be relieved of a

³² The analysts use the higher of the two NMFS estimates of daily full coverage costs for two reasons: (1) to estimate the maximum impact of moving to full coverage, and (2) because the higher estimate includes travel costs, which seem particularly relevant to fisheries where vessels deploy out of western Alaska.

³³ Data on deliveries by processing sector is not yet available for 2014.

partial coverage liability of around \$2,400 per year, but would pay around \$13,000 per year for full coverage.

Alternative 3 (No Option Selected)

Selecting Alternative 3 with no option would allow any vessel, AFA-affiliated or not, to choose full coverage for all of its BSAI trawl activity. Section 3.7.2 previously noted that no non-AFA CV has requested full coverage under the NMFS existing policy, though the policy does not prohibit such a request. Since 2010, 18 non-AFA CVs have participated in the BSAI non-pollock trawl fisheries. Between five and 12 of these vessels were active in each year, logging between 212 and 435 days per year in aggregate, and generating between \$1.6 million and \$4.2 million in total ex-vessel revenue per year. At the vessel level, this set averaged between 32 and 42 days per year in the BSAI limited access fisheries. The median vessel would have grossed roughly \$210,000 in a year, and fished for 30 days. That median vessel would have been liable for roughly \$1,300 in partial coverage fees, but would have paid over \$11,000 in observer costs at a full coverage rate of \$371 per day. As a percentage of ex-vessel revenues, the median vessel's full coverage bill would be equivalent to 5.2% of ex-vessel revenue. Vessels in the top earning decile would have been liable for around \$4,400 in partial coverage fees, but would have paid nearly \$28,000 for a full coverage observer. That full coverage cost would equate to roughly 4.0% of the ex-vessel revenue.

Given that Alternative 3 presents a voluntary choice, the action would not necessarily impose a direct cost on any fishery participants. In fact, if paying for full coverage is not economically viable for non-AFA vessels, which are not responsible for managing a shared cooperative halibut PSC allocation, it is possible that the only vessels that select full coverage under this alternative would be those that do so under the status quo (the AFA CV "volunteers").

Section 3.7.2 discussed the possibility that non-AFA vessels might choose full coverage in the BSAI if they were also active in GOA trawl fisheries, and if the Council began to require full coverage in those GOA fisheries. Each of the 18 non-AFA CV described in this section were active in GOA trawl fisheries, and all but three logged more fishing days in the GOA than in the BSAI during the analyzed period. However, given the relatively low revenues that this set generated per day fished in the BSAI, it seems unlikely that vessel owners would choose full coverage merely for the convenience of harmonizing coverage requirements across areas.

3.7.3.2 Effect of Full Observer Coverage on Fishing Behavior

Full coverage vessels pay a daily rate directly to the observer provider, as opposed to an ex-vessel-based fee liability. As a result, moving a vessel from partial to full coverage makes the cost of observer coverage a function of time spent out of port, rather than a function of the value of the vessel's catch. In other words, full coverage observers can be considered a variable operating cost, similar to fuel. This remains the case under any of the considered action alternatives.

To some extent, then, one might expect profit-seeking vessel operators in full coverage to maximize net revenues by minimizing trip length. This incentive could be exacerbated by the fact that skippers are typically compensated in relation to net revenues (i.e., gross revenues minus operating costs). A skipper who owns his or her own vessel might experience an even stronger incentive of this nature. A vessel

operator might attempt to shorten a trip by fishing closer to port, deploying gear for more hours per day, or taking fewer short “test tows” to check for catch composition and the presence of non-target or PSC species. Taken to the logical extreme, these strategies could have negative effects in terms of localized depletion, crew safety, and bycatch. While these potential effects cannot be examined *a priori*, it is important to consider that vessel operators balance a number of important objectives when determining how to prosecute the fishery. The trawl fleet and its representatives are often engaged with the Council, and are well aware of the National Standards that guide management. Sectors report to NMFS on their efforts to avoid non-target species and PSC, and operators would know that poor performance could lead to additional management measures that restrict fishing opportunities. Vessel operators have a private incentive to consider crew safety, as they themselves are the individuals at sea. Moreover, harvesting a greater proportion of the available TAC will generate more net revenue than controlling variable costs at the margin. Ultimately, vessels would not likely refrain from taking a longer trip to an area where Pacific cod are aggregated.

3.7.3.3 Effects of Alternative 3 Suboptions 1 (Annual Choice) and 2 (One-Time Selection)

For vessel owners and operators, the difference between Alternative 3’s suboptions lies primarily in the flexibility to annually select a level of observer coverage that suits the vessel’s fishing plan for that year. From a vessel owner’s perspective, Suboption 1 provides the higher level of flexibility.

AFA vessels might base this decision on how much fishing they plan to do in the BSAI limited access non-pollock fisheries. An AFA vessel that is planning for a high level of non-pollock effort might wish to invest in full coverage in order to insulate itself and its AFA cooperative from extrapolated PSC rates in the partial coverage fishery. A vessel operator who believes that his or her halibut PSC levels will be good, relative to other partial coverage vessels, would have a greater incentive to fish in full coverage. This calculus might change from year to year, even if the AFA vessel’s planned level of non-pollock effort does not change. For example, at its May 2015 meeting, the OAC noted that new entry into the limited access fisheries might increase the perceived risk of high PSC rates being applied across all partial coverage vessels, as less experienced vessels might tend to record higher levels of non-target catch.

Either an AFA or a non-AFA vessel operator might alter his or her annual coverage preference if the year’s fishing plan calls for a high proportion of deliveries to the mothership processing sector. Vessels are not in the partial coverage category when delivering to a mothership, so a vessel that plans to make only one or two deliveries to a shoreside plant (i.e., fishing in the partial coverage category) would have relatively less exposure to high PSC rates on other vessels. If the planned amount of partial coverage effort is low, the hedge of paying for full coverage might not be worth the higher direct costs on those partial coverage trips. The data presented in Section 3.5.2 (under “BSAI CV Non-Pollock Effort by Processing Sector”) underscores the annual variability in the proportion of deliveries that go to one processing sector or the other; that annual variation is likely attributable to market factors, as well as the timing and location of planned fishing effort as a vessel moves throughout the region.

While requiring a one-time coverage category selection might simplify administrative processes, Suboption 2 might also have unintended or unforeseeable effects on the value of a vessel. If the Council structures Suboption 2 in a manner similar to a permanent vessel-endorsement, the current owner’s coverage category selection could limit the market’s interest in the vessel upon sale. For instance, a vessel

that is permanently assigned to the full coverage category might be less appealing to a potential buyer who wishes to use the vessel in only the limited access non-pollock fisheries when trawling in the BSAI.

3.7.3.4 Comparison of Action Alternatives

This section contains summary observations about the effects of each action alternative, from the perspective of vessel owners and fishery participants.

Alternative 2

Requiring full coverage for all AFA CVs would be directly responsive to the stakeholder requests that initiated NMFS's policy of allowing vessel owners to volunteer for full coverage under the condition that they continue to pay the partial coverage fee and log their trips in ODDS. Alternative 2 would reduce total observer costs for those volunteer CVs relative to the status quo (3.7.3.1). However, the smaller group of AFA-affiliated CVs that have not been voluntarily carrying full coverage would experience a significant cost increase under Alternative 2, as full coverage payments would effectively replace the partial coverage fee liability on those vessels' balance sheets. Though this group of non-volunteers is AFA-eligible, it should be noted that not all of these vessels are actually fishing for AFA pollock in the years during which they fished in BSAI partial coverage fisheries, meaning that one cannot assume that they are generating large gross revenues in other full coverage fisheries with which they could easily absorb this cost increase.

AFA vessels that have not historically participated in the partial coverage BSAI non-pollock trawl fisheries might benefit from Alternative 2 in the sense that no vessels with which they co-manage a halibut PSC allocation would be exposed to the extrapolation of PSC rates in partial coverage.³⁴ These pollock-only AFA vessels would experience reduced risk under Alternative 2, at no direct cost to themselves.

CVs that are forced into full coverage and experiencing higher observer costs might have an incentive to shift more of their deliveries to the mothership processing sector, all things equal. Delivering to motherships has always presented a cost-saving opportunity, as CVs do not have to carry an observer or pay a partial coverage fee on those landings. That cost-saving opportunity would grow larger under Alternative 2, as a CV would now be avoiding a full coverage daily rate that tends to be more expensive than 0.625% of the ex-vessel value of a day's catch. While the non-pollock groundfish trawl fishery accounts for a relatively small portion of total production in western Alaska shoreside processing plants, a policy that indirectly makes the mothership sector seem more attractive could adversely affect shore-based stakeholders, relative to the status quo.

³⁴ As a caveat, this document has generally considered the extrapolation of PSC rates from other partial coverage vessels as a mechanism that would increase the amount of halibut PSC that is attributed to a particular AFA-affiliated vessel that is fishing in partial coverage. One must also acknowledge that some vessels might benefit from having data from observed hauls extrapolated onto their unobserved effort in partial coverage fisheries. That would be the case if the unobserved vessel actually caught more PSC than it was credited with in CAS. This analysis has focused on the "threat" of extrapolation in an effort to anticipate negative effects, and because this action was initiated in the context of AFA vessels taking steps to insulate themselves from the potential negative effects of extrapolation on their AFA cooperative's PSC allocation.

According to the OAC, some AFA-eligible non-pollock CVs follow a BSAI fishing plan wherein they make a long trip based around multiple mothership deliveries, but might intersperse that trip with a single shoreside delivery to reprovision the vessel, or might end the series of mothership deliveries with a shoreside delivery at the end of the season. This plan might not be economical if the vessel is required to be in full coverage, meaning that it would have to pay daily observer costs during all of the mothership activity – where an observer is not required by regulation – in order to land fish when returning to port.

To some extent, fishery participants could experience downstream benefits from the additional scientific and management data that would be gathered under full coverage, relative to partial coverage. However, the argument that data needs justifies additional mandatory fishery costs for certain participants is somewhat weakened by the fact that NMFS determined partial coverage to be sufficient to manage the BSAI non-pollock fisheries when it restructured the Observer Program in 2013.

Alternative 3 Option 1

Alternative 3 Option 1 moves from a mandatory coverage model to a choice model. Compared to Alternative 2, this alternative would be less likely to have unintended impacts on a particular vessel's fishing plan, and would not impose additional observer costs on unwilling participants. From the vessel owner and fishery participant's perspective, most of the variation in potential outcomes relates to whether the Council recommends Suboption 1 or 2. The relative effects of this choice are discussed in the previous section (3.7.3.3).

Alternative 3

Compared to Alternative 2 and Alternative 3 Option 1, this alternative begs the question of why full coverage in BSAI limited access fisheries should be restricted to AFA-affiliated vessels. It is possible that the Council and NMFS have not anticipated all of the reasons that a non-AFA vessel might request full coverage, as they did not anticipate the request addressed by the existing NMFS volunteer policy that initiated this action. If a future request were to arise after this action is implemented, the Council would have to initiate a new NEPA process to consider the stakeholder's issue. Depending on how the Suboptions to Alternative 3 are defined, this alternative could establish a pathway for those vessels to select full coverage before the need arises. Because Alternative 3 is a choice model, one can assume that any non-AFA vessel that selects full coverage would be acting in its own best interest. Most of the challenges associated with choice models fall to NMFS managers and Observer Program staff; those issues are addressed in Section 3.7.1.2.

3.7.4 Impacts on the Observer Program

This section addresses the potential impacts on the Observer Program. The partial coverage category is discussed in terms of the extent to which its remaining fee base might be reduced as vessels move out of the category, and how many fewer deployments might need to be covered. The full coverage category is discussed in terms of what additional training and administrative burden might be placed on Program staff to handle the increase in data moving through the system.

Partial Coverage

The 2014 Observer Program Annual Report estimates the average cost to the program for placing an observer on a partial coverage vessel at \$1,067 per day (NMFS 2015). Vessels that move out of the partial coverage category would no longer remit the fee payments that are used to purchase observer days in the following year.

In Table 10, the analysts estimated that the activity of AFA volunteer CVs generated just shy of \$160,000 in fee liabilities per year in 2013 and 2014. Based on the daily cost listed above, those fees would have funded the purchase of roughly 150 observer days per year. Since those volunteer vessels carried full coverage observers, those 150 days were available to be deployed across other sectors of the partial coverage category. In 2013 and 2014, NMFS spent roughly \$11.5 million in fee revenues and agency funds to purchase 10,816 observer days. That \$160,000 would have made up a relatively small portion of the Observer Programs total annual budget for purchasing observer days. Nevertheless, those funds would not be available to NMFS under Alternative 2, or under Alternative 3 if the historical volunteer vessels continue to select full coverage.

The AFA vessels that chose to fish in partial coverage during 2013 and 2014 fished for 130 days in 2013 and for 357 days in 2014 (Section 3.7.3.1). The 2014 Annual Report states that the average partial coverage trip lasts three to five days (NMFS 2015, p.32). Assuming a five-day average trip length, that segment of the fleet would have made between 26 and 70 trips. Using the 2015 large vessel trip-selection rate of 24%, these vessels would have been observed on between 7 and 17 trips, which computes to 35 and 85 observer days. Based on 2013 and 2014 ex-vessel revenues, the analysts estimate that the activity of these vessels would have generated roughly \$22,000 in 2013 and \$61,000 in 2014, or enough to fund the purchase of 21 to 57 partial coverage observer days. Under Alternative 2, these funds would be removed from the partial coverage fee base. These vessels could select full coverage under Alternative 3, though this analysis does not predict that they would choose to do so.

The non-AFA CVs that participate in the BSAI non-pollock trawl fisheries logged between 212 and 435 fishing days in a given year, from 2010 through 2014. Assuming a five day trip length, those vessels made between 42 and 87 trips in a year. At the 2015 selection rate of 24%, between 10 and 21 trips would have been observed, meaning that the partial coverage category would have had to supply between 50 and 105 observer days. Based on this segment of the fleet's annual ex-vessel revenues in BSAI partial coverage fisheries (between \$1.6 million and \$4.2 million), the activity of these vessels would have generated \$20,000 to \$52,500 per year in fee liabilities. Those remittances could fund 19 to 49 observer days at the most recent estimated daily observer cost. While this analysis deems it somewhat unlikely, these amounts of effort and funds represent the estimated maximum that might be removed from the partial coverage category if the non-AFA vessels select full coverage under Alternative 3 (no option).

At its May 2015 meeting, the OAC raised a question in specific reference to how Suboption 1 to Alternative 3 might affect the Observer Program's funding cycle. Suboption 1 allows vessel owners to choose annually whether their vessel will be in full or partial coverage in the following year, and NMFS would have to be notified of that choice by July 1. The partial coverage category is set up such that processors pay the annual fee remittance (on behalf of the vessels owners, whom they have charged for half of the fee) at the end of the fishing year. Funds from collected from the current year are used to

purchase observer days in the next year. Under an annual choice model, the OAC noted that a situation could arise where most vessels opted to be in full coverage in Year A, then a large number of those vessels moved back into partial coverage in Year B. In a sense, the partial coverage category could be underfunded to purchase the days necessary to achieve good statistical coverage in the fishery during Year B, as fewer vessels paid Year A fees. First of all, the analysts suggest that this scenario seems unlikely. Given the relatively low incentive for vessels that do not participate in a PSC-limited cooperative to voluntarily pay a significantly higher price for full coverage, it is not likely that the BSAI non-pollock trawl fleet would move *en masse* to full coverage. Assuming, however, that this situation is plausible, the vessels that would likely be moving from partial to full coverage and back again would be the AFA non-volunteers and the non-AFA CVs. Based on the effort estimates above, derived from recent years, these two sets of vessels would have required a maximum of 85 and 105 observer days in a year. At an estimated cost of \$1,067 per day, the partial coverage category could face a shortfall of up to roughly \$200,000.³⁵ Noting that the expected demand for observer days in these two fleet segments during a given future year would probably be less than maximum estimate of 190, and recognizing the general unlikelihood of this scenario, the Council should consider whether this scenario presents a potential cost that outweighs the benefits of the flexibility provided by Suboption 1. The manner in which Suboption 1 benefits the fleet is described further in Section 3.7.3.3. Management challenges associated with Suboption 1 are described in Section 3.7.1.2.

Full Coverage

NMFS Observer Program staff is responsible for training new observers, briefing experienced ones, and debriefing observers after their deployments end. In addition, Observer Program staff manage observer data, which involves quality control on data submitted electronically, data entry on information submitted by fax, and application development and maintenance to make observer data accessible to scientists, fishery managers, and vessel owners. Actions that expand the full coverage category can be expected to increase demands on Observer Program resources. As noted in Section 3.5.1, trip debriefing backlogs already exist under the current Observer Program structure; these tend to occur as observers on 90 day contracts return from the early-year pollock and Pacific cod seasons. The increase in demand on Observer Program resources would be a function of how many observers must be trained or briefed, and how many additional trips are being observed and debriefed as a result of the considered action.

The preceding analysis of alternatives (particularly Section 3.7.2), does not suggest that this action is likely to require a large number of new observers to be trained. Alternative 2 would make full coverage mandatory for the fleet of AFA-affiliated vessels that participate in BSAI non-pollock trawl fisheries; many of those vessels are already operating under full coverage, so that segment of the fleet's observer demand would remain at the status quo level. Alternative 2 would also place AFA CVs that have fished under partial coverage in the full coverage category. Overall, this analysis estimates that Alternative 2 would require up to, but likely fewer than, 14 additional full coverage observers to be deployed in BSAI limited access fisheries. That high-end estimate of 14 would represent only a 3.7% increase relative to the 376 individual full coverage observers that were deployed in 2014, and it is likely that not all of those individuals would be new hires in need of training. Demand for additional full coverage observers would not increase as much if the vessels that are required to fish in full coverage alter their fishing plans to

³⁵ $(105 + 85) * \$1,067 = \sim\$200,000$

make more mothership deliveries; considerations that might lead a vessel owner to alter his or her plan in such a way are discussed in Section 3.7.3.4.

The increase in observer-demand under Alternative 3 largely depends on non-AFA vessels' desire to participate in the more costly full coverage category. It is possible that observer demand could remain at status quo levels if only the current set of AFA volunteer CVs selects full coverage. Section 3.7.2 estimates the maximum likely number of additional full coverage observers required under Alternative 3 to be in the range of five to 10, which would be a 2.7% increase relative to the number of observers deployed in 2014. That level of increased demand would occur in the unlikely event that most of the active non-AFA vessels select full coverage.

A rough estimate of the increase in the number of full coverage trips that would need to be debriefed can be derived from the estimated increase in fishing days that have occurred in partial coverage under the status quo, but would have been in full coverage under one of the action alternatives. The AFA non-volunteer vessels that would be moved into full coverage under Alternative 2 fished in partial coverage for 130 days in 2013 and for 357 days in 2014 (Section 3.7.3.1). Based on those historical years and assuming a five-day average trip length, Alternative 2 might result in between 26 and 70 additional full coverage trips. Under Alternative 3 Option 1, the amount of activity in the full coverage category would likely be similar to, or slightly below, the status quo level (see also Section 3.7.3.1). Under Alternative 3 (no option) – granting the generous assumption that most or all of the non-AFA vessels in the BSAI non-pollock trawl fisheries select full coverage, and assuming that the non-volunteer AFA vessels do not – there would be an additional 212 to 435 days fished under full coverage. Using the 5-day trip measure, that additional effort would equate to between 42 and 87 additional full coverage trips.

Finally Section 3.6.1.1 of this document previously discussed the potential for observer data processing and turn-around times to be slowed, relative to partial coverage, when certain types of vessels move into full coverage. In short, non-AFA vessels of less than 125' LOA are not required to provide a full coverage observer with a computer, ATLAS software, or at-sea data transmission capabilities. AFA vessels of less than 125' LOA will be providing full coverage observers with computers under the proposed rule for BSAI Amendment 110, but are not required to facilitate at-sea transmission. By comparison, partial coverage observers provide their own computers, while all vessels $\geq 125'$ LOA provide both a compute and transmission. Unless vessel owners voluntarily provide these tools to full coverage observers on vessels under 125' LOA, shifting those vessels out of partial coverage could result in more faxed data that must be hand-keyed (non-AFA vessels), and data transmissions that cannot be dispatched until the termination of the fishing trip at a plant with an internet connection (AFA and non-AFA vessels). Figure 2 in Section 3.6.1.1 maps out the fleet of BSAI CVs according to length overall, AFA-eligibility, and history of volunteering for full coverage. The BSAI non-pollock trawl fleet that has been active since 2010 includes 63 CVs of less than 125' LOA; 18 of those are non-AFA CVs, 45 are AFA CVs, and 34 of the 45 AFA CVs have volunteered for full coverage in at least one year since 2013.

3.8 Summation of the Alternatives with Respect to Net Benefit to the Nation

The alternatives under consideration are described in Section 3.3, and their potential impacts are discussed in Sections 3.6 and 3.7.

The No Action alternative forms the baseline against which other proposed alternatives are judged from a National net benefits perspective. Under Alternative 1, the status quo, the structure of the Observer Program would remain unchanged and partial coverage BSAI trawl CVs could continue to request full observer coverage, provided that they continue to comply with partial coverage regulations and pay the ex-vessel fee liability. The Observer Program is currently providing adequate scientific and management data, by all accounts, and its performance is frequently reviewed by the Council. NMFS staff has stated that the current system of accommodating full coverage volunteer vessels is not overly burdensome (Section 3.6.1). Furthermore, the existing NMFS policy of allowing vessels to volunteer for full coverage does not induce any vessel owner to pay for a higher level of observer coverage than was deemed necessary under the restructured Observer Program (implemented in 2013). The primary group that is adversely affected under Alternative 1 is the set of AFA-affiliated CVs that originally petitioned the Council and NMFS for permission to carry full observers, pay their daily rate, and continue to pay into the partial coverage fee base. This request stemmed from the objective of better managing halibut PSC allocations, which fits with National Standard 9 and is a regional priority. These AFA “volunteers” currently pay into a partial coverage program that does not deploy observers onto their vessels (see Section 3.7.3.1 for the estimated partial coverage fees paid by volunteer vessels in 2013 and 2014). Moreover, the vessels are voluntarily funding additional observer days, which benefit not only the base of scientific and management data, but also benefit the companies that provide full coverage observers.

Of the proposed alternatives, Alternative 2 would increase the total amount of observer coverage in BSAI non-pollock trawl fisheries by the greatest amount. Alternative 2 would also alleviate a duplicative cost burden on the set of AFA CVs that continue to volunteer for full coverage. From an administrative perspective, Alternative 2 provides the simplest path to implementation in terms of additional processes, deadlines, recordkeeping, and reporting requirements (Section 3.7.1.2). However, Alternative 2 would require a set of 15 AFA CVs that have participated in the fishery since 2010 but have never volunteered for full coverage to take on significant additional costs that might alter their manner of fishing (Sections 3.7.3.1 and 3.7.3.2). When facing a directive to fish in the full coverage category, these non-volunteer vessels might respond by fishing less (to reduce daily observer costs), or by altering their fishing plans to deliver more fish to the mothership sector. One must assume that when fishing plans change as the result of a regulatory action, vessels are not acting in the most efficient possible manner. Moreover, while responsive to the Council’s purpose and need statement, restricting the ability to volunteer for full coverage only to AFA-eligible vessels might unnecessarily restrict the Council’s ability to accommodate unforeseeable full coverage requests from non-AFA vessels in the future. That said, the non-AFA portion of the BSAI non-pollock trawl fleet has demonstrated no interest in participating in the full coverage category since that option was made available in 2013.

Alternative 3, with Option 1, would have a similar general effect to Alternative 2, except that AFA CVs that have not demonstrated an interest in paying for full coverage would not be required to do so.

Moreover, since 2013, the number of AFA CVs that have volunteered for full coverage in each year has declined. This alternative would allow those vessel owners who have determined that partial coverage better suits their fishing plan to avoid the higher cost of full coverage. Under this alternative, the AFA CV owners who most benefit from full coverage would be permitted to continue that practice (without the additional cost of a partial coverage fee liability), thus establishing a natural floor to the number of BSAI non-pollock vessels in full coverage. Option 1 to Alternative 3 restricts the voluntary choice of full coverage to AFA-eligible vessels, thus excluding non-AFA vessels in the future. As stated before, the non-AFA fleet has not demonstrated any interest in paying for full coverage; nonetheless, this particular option would reduce flexibility in the case of an unexpected contingency. Presuming that higher levels of observer coverage are better for the resource and for management, Alternative 3 (in all its forms) provides less observer data than Alternative 2.

Alternative 3, without Option 1, would allow any BSAI trawl CV to select full coverage. Relative to the two action alternatives described above, this alternative is the most inclusive and might minimize management time and costs in the case that future requests for full coverage emerge from the non-AFA fleet.

The suboptions associated with Alternative 3 trade off flexibility for vessel owners to tailor their coverage obligations to their annual fishing plan (Suboption 1) for management certainty and simplicity (Suboption 2). The analysts assume that the July 1 decision date specified in Suboption 1 removes any risk that accommodating annual flexibility would impair the agency's ability to craft a viable Annual Deployment Plan for the upcoming year.

Because none of the alternatives jeopardize the integrity of the Observer Program's essential functions, one might view the most inclusive alternative with the most flexibility (Alternative 3, Suboption 1) as the one that maximizes net benefits to the nation. However, breadth of inclusion and flexibility imposes additional administrative costs and reduces predictability in multi-year planning by Observer Program staff.

4 Initial Regulatory Flexibility Analysis

4.1 Introduction

This Initial Regulatory Flexibility Analysis (IRFA) addresses the statutory requirements of the Regulatory Flexibility Act (RFA) of 1980, as amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (5 U.S.C. 601-612). This IRFA evaluates the potential adverse economic impacts on small entities directly regulated by the proposed action.

The RFA, first enacted in 1980, was designed to place the burden on the government to review all regulations to ensure that, while accomplishing their intended purposes, they do not unduly inhibit the ability of small entities to compete. The RFA recognizes that the size of a business, unit of government, or nonprofit organization frequently has a bearing on its ability to comply with a federal regulation. Major goals of the RFA are: (1) to increase agency awareness and understanding of the impact of their regulations on small business, (2) to require that agencies communicate and explain their findings to the public, and (3) to encourage agencies to use flexibility and to provide regulatory relief to small entities.

The RFA emphasizes predicting significant adverse economic impacts on small entities as a group distinct from other entities, and on the consideration of alternatives that may minimize adverse economic impacts, while still achieving the stated objective of the action. When an agency publishes a proposed rule, it must either ‘certify’ that the action will not have a significant adverse economic impact on a substantial number of small entities, and support that certification with the ‘factual basis’ upon which the decision is based; or it must prepare and make available for public review an IRFA. When an agency publishes a final rule, it must prepare a Final Regulatory Flexibility Analysis, unless, based on public comment, it chooses to certify the action.

In determining the scope, or ‘universe’, of the entities to be considered in an IRFA, NMFS generally includes only those entities that are directly regulated by the proposed action. If the effects of the rule fall primarily on a distinct segment, or portion thereof, of the industry (e.g., user group, gear type, geographic area), that segment would be considered the universe for the purpose of this analysis.

4.2 IRFA Requirements

Until the North Pacific Fishery Management Council (Council) makes a final decision on a preferred alternative, a definitive assessment of the proposed management alternatives cannot be conducted. In order to allow the agency to make a certification decision, or to satisfy the requirements of an IRFA of the preferred alternative, this section addresses the requirements for an IRFA. Under 5 U.S.C., section 603(b) of the RFA, each IRFA is required to contain:

- A description of the reasons why action by the agency is being considered;
- A succinct statement of the objectives of, and the legal basis for, the proposed rule;
- A description of and, where feasible, an estimate of the number of small entities to which the proposed rule will apply (including a profile of the industry divided into industry segments, if appropriate);

- A description of the projected reporting, record keeping, and other compliance requirements of the proposed rule, including an estimate of the classes of small entities that will be subject to the requirement and the type of professional skills necessary for preparation of the report or record;
- An identification, to the extent practicable, of all relevant federal rules that may duplicate, overlap, or conflict with the proposed rule;
- A description of any significant alternatives to the proposed rule that accomplish the stated objectives of the proposed action, consistent with applicable statutes, and that would minimize any significant economic impact of the proposed rule on small entities. Consistent with the stated objectives of applicable statutes, the analysis shall discuss significant alternatives, such as:
 1. The establishment of differing compliance or reporting requirements or timetables that take into account the resources available to small entities;
 2. The clarification, consolidation, or simplification of compliance and reporting requirements under the rule for such small entities;
 3. The use of performance rather than design standards;
 4. An exemption from coverage of the rule, or any part thereof, for such small entities.

In preparing an IRFA, an agency may provide either a quantifiable or numerical description of the effects of a proposed action (and alternatives to the proposed action), or more general descriptive statements, if quantification is not practicable or reliable.

4.3 Definition of a Small Entity

The RFA recognizes and defines three kinds of small entities: (1) small businesses, (2) small non-profit organizations, and (3) small government jurisdictions.

Small businesses. Section 601(3) of the RFA defines a ‘small business’ as having the same meaning as ‘small business concern’, which is defined under Section 3 of the Small Business Act (SBA). ‘Small business’ or ‘small business concern’ includes any firm that is independently owned and operated and not dominant in its field of operation. The SBA has further defined a “small business concern” as one “organized for profit, with a place of business located in the United States, and which operates primarily within the United States or which makes a significant contribution to the U.S. economy through payment of taxes or use of American products, materials or labor...A small business concern may be in the legal form of an individual proprietorship, partnership, limited liability company, corporation, joint venture, association, trust or cooperative, except that where the firm is a joint venture there can be no more than 49 percent participation by foreign business entities in the joint venture.”

The Small Business Administration (SBA) has established size standards for all major industry sectors in the U.S., including commercial finfish harvesters (NAICS code 114111), commercial shellfish harvesters (NAICS code 114112), other commercial marine harvesters (NAICS code 114119), for-hire businesses (NAICS code 487210), marinas (NAICS code 713930), seafood dealers/wholesalers (NAICS code 424460), and seafood processors (NAICS code 311710). A business primarily involved in finfish harvesting is classified as a small business if it is independently owned and operated, is not dominant in its field of operation (including its affiliates), and has combined annual gross receipts not in excess of \$20.5 million, for all its affiliated operations worldwide. For commercial shellfish harvesters, the same

qualifiers apply, except the combined annual gross receipts threshold is \$5.5 million. For other commercial marine harvesters, for-hire fishing businesses, and marinas, the same qualifiers apply, except the combined annual gross receipts threshold is \$7.5 million.

A business primarily involved in seafood processing is classified as a small business if it is independently owned and operated, is not dominant in its field of operation (including its affiliates), and has combined annual employment, counting all individuals employed on a full-time, part-time, or other basis, not in excess of 500 employees³⁶ for all its affiliated operations worldwide. For seafood dealers/wholesalers, the same qualifiers apply, except the employment threshold is 100 employees.

The SBA has established “principles of affiliation” to determine whether a business concern is “independently owned and operated.” In general, business concerns are affiliates of each other when one concern controls or has the power to control the other, or a third party controls or has the power to control both. The SBA considers factors such as ownership, management, previous relationships with or ties to another concern, and contractual relationships, in determining whether affiliation exists. Individuals or firms that have identical or substantially identical business or economic interests, such as family members, persons with common investments, or firms that are economically dependent through contractual or other relationships, are treated as one party with such interests aggregated when measuring the size of the concern in question. The SBA counts the receipts or employees of the concern whose size is at issue and those of all its domestic and foreign affiliates, regardless of whether the affiliates are organized for profit, in determining the concern’s size. However, business concerns owned and controlled by Indian Tribes, Alaska Regional or Village Corporations organized pursuant to the Alaska Native Claims Settlement Act (43 U.S.C. 1601), Native Hawaiian Organizations, or Community Development Corporations authorized by 42 U.S.C. 9805 are not considered affiliates of such entities, or with other concerns owned by these entities solely because of their common ownership.

Affiliation may be based on stock ownership when (1) a person is an affiliate of a concern if the person owns or controls, or has the power to control 50 percent or more of its voting stock, or a block of stock which affords control because it is large compared to other outstanding blocks of stock, or (2) if two or more persons each owns, controls or has the power to control less than 50 percent of the voting stock of a concern, with minority holdings that are equal or approximately equal in size, but the aggregate of these minority holdings is large as compared with any other stock holding, each such person is presumed to be an affiliate of the concern.

Affiliation may be based on common management or joint venture arrangements. Affiliation arises where one or more officers, directors, or general partners, controls the board of directors and/or the management of another concern. Parties to a joint venture also may be affiliates. A contractor and subcontractor are

³⁶ In determining a concern's number of employees, SBA counts all individuals employed on a full-time, part-time, or other basis. This includes employees obtained from a temporary employee agency, professional employee organization, or leasing concern. SBA will consider the totality of the circumstances, including criteria used by the IRS for Federal income tax purposes, in determining whether individuals are employees of a concern. Volunteers (*i.e.*, individuals who receive no compensation, including no in-kind compensation, for work performed) are not considered employees. Where the size standard is number of employees, the method for determining a concern's size includes the following principles: (1) the average number of employees of the concern is used (including the employees of its domestic and foreign affiliates) based upon numbers of employees for each of the pay periods for the preceding completed 12 calendar months; (2) Part-time and temporary employees are counted the same as full-time employees. [PART 121—SMALL BUSINESS SIZE REGULATIONS §121.106]

treated as joint venturers if the ostensible subcontractor will perform primary and vital requirements of a contract or if the prime contractor is unusually reliant upon the ostensible subcontractor. All requirements of the contract are considered in reviewing such relationship, including contract management, technical responsibilities, and the percentage of subcontracted work.

Small organizations. The RFA defines “small organizations” as any not-for-profit enterprise that is independently owned and operated, and is not dominant in its field.

Small governmental jurisdictions. The RFA defines “small governmental jurisdictions” as governments of cities, counties, towns, townships, villages, school districts, or special districts with populations of fewer than 50,000.

4.4 Reason for Considering the Proposed Action

The Council adopted the following purpose and need statement at its June 2015 meeting:

Since 2013, NMFS has allowed the owners of BSAI trawl catcher vessels in the partial observer coverage category to volunteer on an annual basis for full observer coverage during all times that they participate in BSAI fisheries. Individuals who have made this choice thus far are owners of AFA catcher vessels that participate in the BSAI limited access Pacific cod trawl fishery. They choose full coverage to better manage Pacific halibut prohibited species catch (PSC) limits within their cooperatives. Current regulations do not authorize voluntary selection of full coverage. Vessel owners who choose full coverage must pay both the ex-vessel based partial coverage observer fee and a daily full coverage observer rate. The Council recognizes that this is an additional financial burden to vessel owners who voluntarily choose full coverage. An amendment to the regulations implementing the North Pacific Groundfish and Halibut Observer Program may be warranted. The Council seeks to balance the observer costs for BSAI trawl catcher vessel owners with NMFS’s ability to monitor and enforce compliance with observer coverage requirements and the essential functioning of the Observer Program’s partial coverage category.

4.5 Objectives of Proposed Action and its Legal Basis

The principal objective of this proposed regulatory amendment is to allow vessel owners to carry a higher level of observer coverage, while providing relief to vessel owners who are currently volunteering for full coverage while still paying a partial coverage fee. This action would be consistent with National Standards 2 and 7.

National Standard 2 requires that management measures be based upon the best scientific information available. Allowing participants to select higher observer coverage levels could provide additional scientific and management information, in so far as vessels that were previously operating under partial coverage move to full coverage. This action would support the decision of some vessel owners to carry an observer during all BSAI trawl activity in order to better account for their catch of halibut PSC. Better PSC management, either individually or at the AFA-cooperative level, would be consistent with National Standard 9, which calls for minimization of bycatch and of bycatch mortality.

This action is also consistent with National Standard 7, which requires that management measures shall, where practicable, minimize costs and avoid unnecessary duplication. As stated above, the owners of partial coverage vessels who are volunteering for full coverage are making two observer payments – a full coverage daily rate and a partial coverage landings fee. This action could eliminate the partial coverage fee for some vessels owners who, due to their voluntary full coverage status, are not currently having partial coverage observers deployed onto their vessels.

Under the authority of the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act), the Secretary of Commerce (NMFS Alaska Regional Office) and the North Pacific Fishery Management Council have the responsibility to prepare fishery management plans and associated regulations for the marine resources found to require conservation and management. NMFS is charged with carrying out the Federal mandates of the Department of Commerce with regard to marine fish, including the publication of Federal regulations. The Alaska Regional Office of NMFS, and Alaska Fisheries Science Center, research, draft, and support the management actions recommended by the Council. The BSAI groundfish fisheries are managed under the Fishery Management Plan for Groundfish of the BSAI Management Area. The proposed action represents an amendment, as required, to associated Federal regulations.

4.6 Number and Description of Directly Regulated Small Entities

This section provides an estimate of the number of directly regulated harvesting vessels that are considered small entities³⁷. These estimates may overstate the number of small entities (and conversely, understate the number of large entities). The RFA requires consideration of affiliations between entities for the purpose of assessing whether or not an entity is small. The estimates in this section do not take into account all affiliations between entities, because some business affiliations are not captured in data that are available to the analysts. There is not a strict one-to-one correlation between vessels and entities; many persons and firms are known to have ownership interests in more than one vessel, and many of these vessels with different ownership, are otherwise affiliated with each other. For example, vessels in the American Fisheries Act (AFA) catcher vessel sector may be categorized as “large entities” for the purpose of the RFA under the principles of affiliation, due to their being part of the AFA pollock cooperatives. However, vessels that have other types of affiliation that are not tracked in available data (i.e. ownership of multiple vessel or affiliation with processors) may be misclassified as a small entity.

AKFIN has provided the analysts with the most recent complete set of gross revenue data, which covers the 2014 fishing year. Vessels, the proxy for harvesters, are classified as either a finfish operation or a shellfish operation, based on which fishing activity makes up the majority of the vessel’s gross receipts in the most recent year (2014). The resulting classification is applied to the gross revenue threshold for small entities (see Section 4.3). Vessels that have a known affiliation with other vessels – through a business ownership or through a cooperative – are measured against the small entity threshold based on the total gross revenues of all affiliated vessels.

³⁷ The NMFS Regional Economist for Alaska provides guidance on the preparation of the IRFA. That guidance states that for a small entity to be “directly regulated” by the action, the action must require some affirmative action on the part of the specific entity. This is a higher threshold than simply stating that an entity is potentially impacted by the action. Depending upon the alternative selected as the Council’s preferred alternative, the move from the partial to the full coverage category could be framed as a harvester’s option, not a requirement.

Under the current set of alternatives, any trawl CV that is currently assigned to the partial coverage category could be directly regulated by this action (Alternative 3). One-hundred CVs used trawl gear in the BSAI in 2014. The analysts estimate that 20 of these vessels are small entities, based on their average annual individual revenues, or the combined average annual revenues of the vessels with which they are known to be affiliated, over the 2012 through 2014 period. Six of these small entity CVs are affiliated through an AFA cooperative with average annual gross receipts of slightly less than the \$20.5 million threshold. The other 14 small entity CVs are not AFA vessels (one is known to be affiliated with a Central GOA Rockfish Program cooperative that had combined receipts of less than the SBA threshold). Of the 20 small entity CVs, six have voluntarily participated in the full coverage category for all of their BSAI activity during at least one year from 2013 through 2015; three of those vessels were part of an AFA cooperative, and three were not.

Seventy-nine of the 80 trawl CVs that are not classified as small entities are affiliated with an AFA cooperative. Forty of those CVs have voluntarily participated in the full coverage category during at least one year from 2013 through 2015. The lone non-AFA vessel in this category was affiliated with a BSAI crab cooperative.

The NMFS guidance for preparing an IRFA states that in order for an entity to be considered small under the guidelines of the RFA the entity must the revenue threshold, be directly regulated in a manner that requires some affirmative action to be taken, *and* the entity must be adversely affected. The analysts will revisit this section to address whether vessels, or a subset of vessels, are adversely affected once the Council has developed a preliminary preferred alternative.

4.7 Recordkeeping and Reporting Requirements

To be completed once a preferred alternative has been selected.

4.8 Federal Rules that may Duplicate, Overlap, or Conflict with Proposed Action

To date, analysis has not revealed any other Federal rules that would duplicate, overlap, or conflict with this proposed action. This conclusion will be revisited once a preferred alternative has been selected.

4.9 Description of Significant Alternatives to the Proposed Action that Minimize Economic Impacts on Small Entities

To be completed once a preferred alternative has been selected.

5 Magnuson-Stevens Act and FMP Considerations

5.1 Magnuson-Stevens Act National Standards

Below are the 10 National Standards as contained in the Magnuson-Stevens Fishery and Conservation Act (Magnuson-Stevens Act). In recommending a preferred alternative, the Council must consider how to balance the national standards. After initial review, and potentially after the Council has identified a preliminary preferred alternative, the analysts will provide a brief description of how each alternative is consistent with the National Standards, where applicable.

National Standard 1 — Conservation and management measures shall prevent overfishing while achieving, on a continuing basis, the optimum yield from each fishery

National Standard 2 — Conservation and management measures shall be based upon the best scientific information available.

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

National Standard 4 — Conservation and management measures shall not discriminate between residents of different states. If it becomes necessary to allocate or assign fishing privileges among various U.S. fishermen, such allocation shall be (A) fair and equitable to all such fishermen, (B) reasonably calculated to promote conservation, and (C) carried out in such a manner that no particular individual, corporation, or other entity acquires an excessive share of such privileges.

National Standard 5 — Conservation and management measures shall, where practicable, consider efficiency in the utilization of fishery resources, except that no such measure shall have economic allocation as its sole purpose.

National Standard 6 — Conservation and management measures shall take into account and allow for variations among, and contingencies in, fisheries, fishery resources, and catches.

National Standard 7 — Conservation and management measures shall, where practicable, minimize costs and avoid unnecessary duplication.

National Standard 8 — Conservation and management measures shall, consistent with the conservation requirements of this Act (including the prevention of overfishing and rebuilding of overfished stocks), take into account the importance of fishery resources to fishing communities in order to (A) provide for the sustained participation of such communities, and (B) to the extent practicable, minimize adverse economic impacts on such communities.

National Standard 9 — Conservation and management measures shall, to the extent practicable, (A) minimize bycatch, and (B) to the extent bycatch cannot be avoided, minimize the mortality of such bycatch.

National Standard 10 — Conservation and management measures shall, to the extent practicable, promote the safety of human life at sea.

5.2 Section 303(a)(9) Fisheries Impact Statement

Section 303(a)(9) of the Magnuson-Stevens Act requires that a fishery impact statement be prepared for each FMP amendment. A fishery impact statement is required to assess, specify, and analyze the likely effects, if any, including the cumulative conservation, economic, and social impacts, of the conservation and management measures on, and possible mitigation measures for, (a) participants in the fisheries and fishing communities affected by the plan amendment; (b) participants in the fisheries conducted in adjacent areas under the authority of another Council; and (c) the safety of human life at sea, including whether and to what extent such measures may affect the safety of participants in the fishery.

The RIR/IRFA prepared for this plan amendment constitutes the fishery impact statement. The likely effects of the proposed action, including effects on fishery participants and fishing communities, are analyzed and described throughout the RIR/IRFA. The effects of the proposed action on safety of human life at sea will be evaluated under Section 5.1 of the next draft of this analysis (see National Standard 10). Based on the information reported in this section, there is no need to update the Fishery Impact Statement included in the FMP.

The proposed action affects the groundfish fisheries in the EEZ off Alaska, which are under the jurisdiction of the North Pacific Fishery Management Council. Impacts on participants in fisheries conducted in adjacent areas under the jurisdiction of other Councils are not anticipated as a result of this action.

6 Preparers and Persons Consulted

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Persons Consulted

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Bryan Belay	MRAG Americas
Nancy Munro	Saltwater, Inc.
Troy Quinlan	Techsea International, Inc.
Observer Advisory Committee	

7 References

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8 Appendix

Appendix 1 Example Letter Requesting Full Coverage in BSAI Pacific Cod Fishery

(Include your return mailing address)

(Date your letter)

James W. Balsiger
National Marine Fisheries Service
P.O. Box 21668
Juneau, Alaska 99801

Dear Dr. Balsiger:

We are writing to request that the National Marine Fisheries Service assign the attached list of vessels with 100% observer coverage for 2015 while these boats are fishing in the Bering Sea Aleutian Islands (BSAI) in 2015. This will enable trawl catcher vessels in the BSAI Pacific cod fishery to take observer coverage in addition to that required for the partial observer coverage category.

We understand that we will be required to comply with all applicable regulations, including logging all fishing trips that are not AFA pollock prior to the start of a trip. Trips will be logged in the Observer Declare and Deploy System (ODDS).

Once the trips are logged, we understand that we will procure an observer through one of the five certified observer providers and pay for this observer coverage directly to the observer providers. In addition, we understand that the observer fee liability under §679.55 would continue to apply.

We agree to, and understand, the following:

1. individuals taken over and above existing observer coverage requirements are observers as defined at §679.2;
2. vessel owners and operators will comply with the prohibitions protecting observers that are at §679.7(g) and will meet the vessel responsibilities described at §679.51(e);
3. vessel owners and operators are subject to general requirements applicable to observers described at §600.746;
4. vessel owners or operators must log all fishing trips and follow applicable regulations when they are in the partial coverage category; and
5. landings will be subject to the observer fee under §679.55.

Sincerely,