

PUBLIC REVIEW DRAFT

Environmental Assessment / Regulatory Impact Review for Proposed Regulatory Amendment to

Adjust the Partial Coverage Observer Fee

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Abstract: This Environmental Assessment/Regulatory Impact Review analyzes proposed management measures that would apply exclusively to the Gulf of Alaska (GOA), Bering Sea and Aleutian Islands (BSAI) groundfish and Pacific halibut (*Hippoglossus stenolepis*) fisheries. The measures under consideration include adjusting the observer fee that supports deployment of observers and electronic monitoring (EM) in the commercial groundfish and Pacific halibut fisheries that are subject to partial coverage monitoring, throughout the GOA and BSAI. Under any alternative, the scope of this analysis is limited to changes in the observer fee percentage. The purpose of this action is to improve the ability for the Council and NMFS to meet the Council's monitoring objectives by increasing the available funding for the deployment of observers and EM.

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List of Acronyms and Abbreviations

Acronym or Abbreviation	Meaning	Acronym or Abbreviation	Meaning
ABC	acceptable biological catch	PPA	Preliminary preferred alternative
ADF&G	Alaska Department of Fish and Game	PRA	Paperwork Reduction Act
ADP	Annual Deployment Plan	RFA	Regulatory Flexibility Act
AFA	American Fisheries Act	RIR	Regulatory Impact Review
AFSC	Alaska Fisheries Science Center	SAFE	Stock Assessment and Fishery Evaluation
AKFIN	Alaska Fisheries Information Network	SAR	stock assessment report
BSAI	Bering Sea and Aleutian Islands	SBA	Small Business Act
CAS	Catch Accounting System	Secretary	Secretary of Commerce
CDQ	Community development quota	TAC	total allowable catch
CEQ	Council on Environmental Quality	TRW	Trawl
CFR	Code of Federal Regulations	U.S.	United States
COAR	Commercial Operators Annual Report	USCG	United States Coast Guard
Council	North Pacific Fishery Management Council	USFWS	United States Fish and Wildlife Service
CP	catcher/processor	VMS	vessel monitoring system
CV	catcher vessel		
E.O.	Executive Order		
EA	Environmental Assessment		
EEZ	Exclusive Economic Zone		
EFH	essential fish habitat		
EIS	Environmental Impact Statement		
EM	Electronic monitoring		
ESA	Endangered Species Act		
FMA	Fisheries Monitoring and Analysis		
FMP	fishery management plan		
FONSI	Finding of No Significant Impact		
FR	<i>Federal Register</i>		
ft	foot or feet		
GOA	Gulf of Alaska		
HAL	Hook and line		
IRFA	Initial Regulatory Flexibility Analysis		
LAPP	Limited access privilege program		
lb(s)	pound(s)		
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		
t	tonne, or metric ton		
NAICS	North American Industry Classification System		
NAO	NOAA Administrative Order		
NEPA	National Environmental Policy Act		
NMFS	National Marine Fishery Service		
NOAA	National Oceanic and Atmospheric Administration		
NPFMC	North Pacific Fishery Management Council		
Observer Program	North Pacific Observer Program		
ODDS	Observer Declare and Deploy System		
OMB	Office of Management and Budget		
PSC	prohibited species catch		

Executive Summary

This document analyzes a proposed regulatory amendment to adjust the observer fee that supports deployment of observers and electronic monitoring (EM) in the commercial groundfish and Pacific halibut fisheries that are subject to partial coverage monitoring, throughout the Gulf of Alaska (GOA) and the Bering Sea and Aleutian Islands (BSAI). In October 2017, the Council initiated this analysis of a potential adjustment to the observer fee. This analysis examines potential costs and benefits of raising the observer fee or leaving it at 1.25 percent of ex-vessel values. The alternatives under consideration vary as to whether the observer fee would be levied equally on all landing subject to the observer fee, or whether a fee adjustment would be differentially applied by fishery. Under any alternative, the scope of this analysis is limited to changes in the observer fee percentage. The deployment of observers and electronic monitoring would continue to be implemented using the current, statistically-reliable, random sampling model as established in the existing annual review and planning process.

Purpose and Need

 [For more information, see Section 1](#)

The Council initiated this action in October 2017, and adopted the following purpose and need statement in February 2018:

The North Pacific Observer Program (Observer Program) is widely recognized as successful and essential for the management of the North Pacific groundfish and halibut fisheries. The funding and annual planning and review process for monitoring vessels and processors in the partial coverage category are designed to implement a scientifically reliable sampling plan to collect data necessary to manage the commercial groundfish and halibut fisheries. This system distributes the cost of observer coverage across participants in the partial coverage category and provides annual flexibility to evaluate the performance of and improve the sampling plan, in consultation with the Council. Through this process, monitoring selection rates are adjusted annually according to the available budget. In addition, the monitoring selection rates may be adjusted in response to fishery management objectives, as funding allows.

The annual process of establishing observer coverage and EM selection rates in the partial coverage category using the Observer Program Annual Report and Draft Annual Deployment Plan is a well-designed, flexible, and legally defensible process. This annual process produces a statistically reliable sampling plan for the collection of scientifically robust data at any level of observer coverage and can allow for annual consideration of policy-driven monitoring objectives identified through the Council process.

To continue to improve the Observer Program, maintain and enhance the Council's ability to meet policy objectives through monitoring, and fund deployment of electronic monitoring systems, additional funding for monitoring in the partial coverage category may be necessary.

Alternatives

 [For more information, see Section 2](#)

The Council's adopted alternatives for analysis were initially identified in February 2018 and revised in April 2019.

Alternative 1: Status quo. The observer fee percentage at 50 CFR 679.55(f) is 1.25 percent.

Alternative 2: Increase the observer fee up to 2 percent.

Option 1: Set the observer fee percentage at 1.5 percent.

Option 2: Set the observer fee percentage at 1.75 percent.

Option 3: Set the observer fee percentage at 2 percent.

Alternative 3: Increase the observer fee percentage by fishery sector (hook-and-line, pot, jig, and trawl) up to 2 percent.

Option 1: Set the observer fee percentage for the hook-and-line, pot, and jig fisheries at 1.5 percent and set the observer fee percentage for the trawl fishery at 1.75 percent.

Option 2: Set the observer fee percentage for the hook-and-line, pot, and jig fisheries at 1.5 percent and set the observer fee percentage for the trawl fishery at 2 percent.

Option 3: Set the observer fee percentage for the hook-and-line, pot, and jig fisheries at 1.75 percent and set the observer fee percentage for the trawl fishery at 2 percent.

The options under Alternatives 2 and 3 are intended to focus the analysis on the impacts of specific fee percentage combinations within the possible range. In recommending a preferred alternative, however, the Council may select any fee percentage within the analyzed range under either alternative.

As described above, the scope of this analysis is limited to changes in the observer fee percentage. Through the Council's Fishery Monitoring Advisory Committee (FMAC), the Council is exploring ongoing efforts to improve cost efficiencies, including whether it may be feasible to largely shift the fixed gear partial coverage fisheries to electronic monitoring systems supported by shoreside observers and port sampling. Development work and field testing is underway, but the viability of this design for saving costs is yet to be determined.

Background on the Observer Program

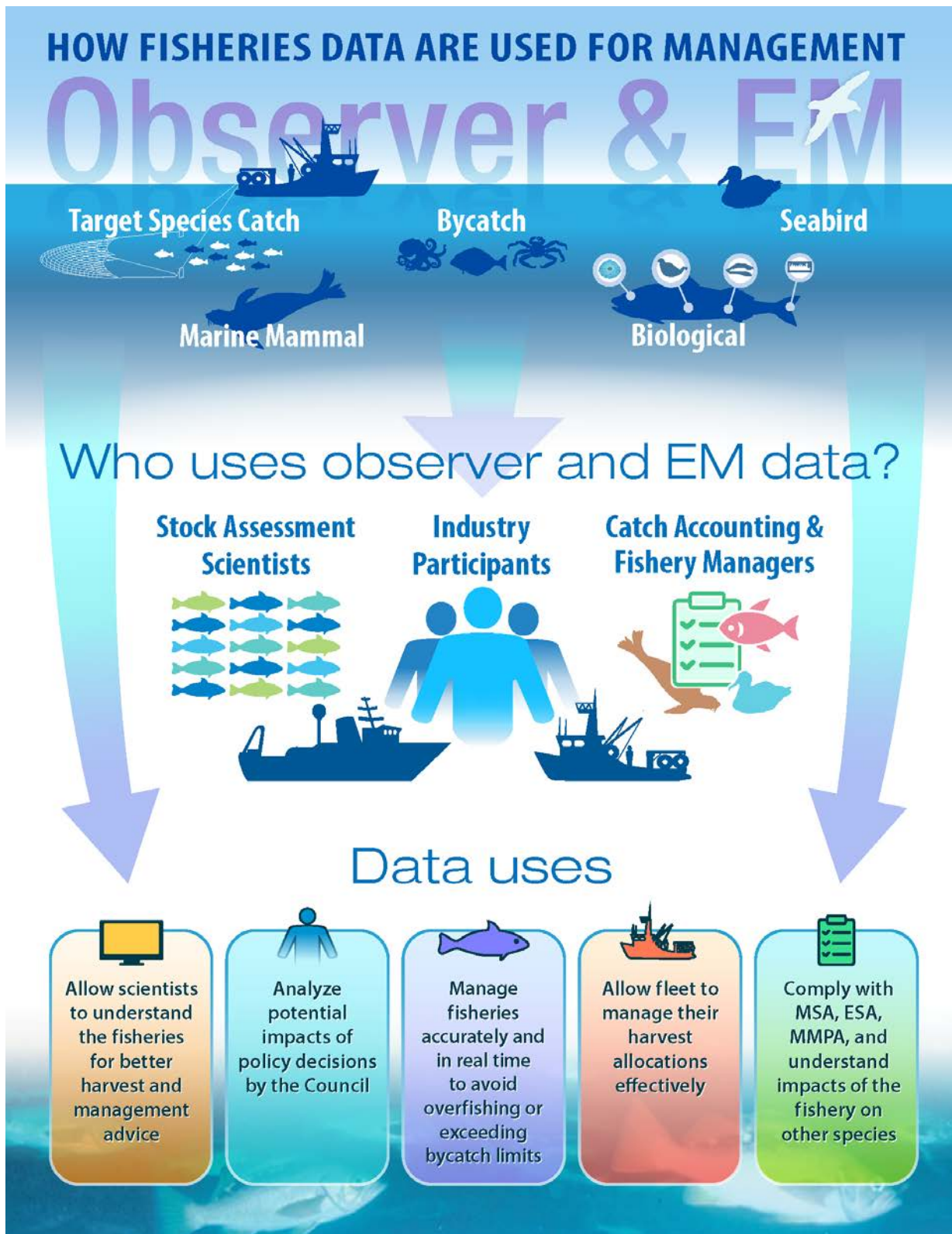
 [For more information, see Section 3](#)

To carry out their responsibility for conserving and managing groundfish resources, the Council and NMFS must have high quality, timely, and cost-efficient data to support management and scientific information needs. The Observer Program was restructured in 2013 to reduce bias in observer data, facilitate collection of observer data in sectors that did not previously have coverage requirements, and allow flexibility through the Annual Deployment Plan model, whereby fishery managers can annually tailor observer coverage in response to management needs (Section 3.1). Implementation of the restructured Observer Program addressed many longstanding issues with data quality concerns related to the previous observer deployment model (NPFMC 2011). The program is funded through a fee-based mechanism that reflects the value a vessel or processor extracts from the fishery, which has improved the equitability of cost distribution among fishery participants. NMFS contracts directly with observer providers for the partial coverage category and determines when and where observers are deployed based on a scientifically sound sampling design to collect data necessary to manage the commercial groundfish and halibut fisheries.

Landings by vessels in the partial coverage category are assessed a 1.25 percent fee which is paid to NMFS by processors and registered buyers and is used to fund the deployment of observers and EM. A 1.25 percent fee was chosen during the restructure analysis based on the Council's interest in balancing the need for revenue to support the Observer Program with the need to minimize impacts on the industry sectors included in the restructured Program. As all sectors benefit from monitoring data that allows sustainable management of the fishery resource, the Council recommended the same fee percentage be assessed across all fishery participants subject to the fee.

Figure ES- 1 (and Section 3.2) describe how fishery-dependent data from the Observer Program are used to achieve a variety of goals, including catch, bycatch, and biological data for stock and ecosystem assessments, management of the fisheries by NMFS and fishermen, and scientific understanding of the fisheries for management advice and policy decisions. Restructuring the program in 2013 made substantial improvements to the representativeness (quality and utility) of observer data.

Figure ES- 1 Summary of how observer and EM data are used in fisheries management in the North Pacific



On an annual basis, NMFS develops an Annual Deployment Plan that describes how NMFS intends to assign at-sea and shoreside fishery observers and electronic monitoring to vessels and processing plants engaged in halibut and groundfish fishing operations in the North Pacific. Each Annual Deployment Plan describes three elements of the sampling design for at-sea deployment of observers and EM in the partial coverage category: 1) the selection method (e.g. vessel or trip) to accomplish random sampling; 2) division of the population of partial coverage trips into selection pools or strata (stratification scheme); and 3) the allocation of deployment trips among strata (allocation strategy). Once these factors are established, analysts use modeling results to predict the number of observer days required to meet the needs of the fleet in the upcoming year, and set a selection rate for each strata that will ensure that program costs remain within the available budget. Although the observer sampling program will likely continue to evolve, for several years NMFS has employed a selection method based on individual trips, with strata delineated by gear type and delivery pattern. Starting in 2018, the Annual Deployment Plan also established a benchmark expectation for the amount of coverage needed for spatial representativeness using a baseline observer allocation strategy whereby a base level of coverage (15%) is equally allocated among sampling strata (the “hurdle”), and any remaining sea days are allocated differentially among strata by optimizing precision and cost. A strength of the Annual Deployment Plan process is that strata definitions, risk thresholds, hurdle levels, and optimization can be revisited as needed. Although stability is an important component for the observer program, fisheries change over time and new information can change priorities and scientific understanding.

Decisions about how to distribute observer coverage consider a range of factors, including changes to improve the statistically reliability of the data as well as balancing the operational impacts on the affected vessels and processors. Through the implementation and modification of the Observer Program, the Council and NMFS have identified a number of monitoring objectives important to successfully monitor the fisheries off Alaska. Figure ES- 2 highlights the eight monitoring objectives identified for the observer program, and how elements of the existing program that are designed to be responsive to and address these objectives (also discussed further in Section 3.3). NMFS and the Council balance this diverse set of monitoring objectives for deployment and data collection. For example, the monitoring objectives for data collection, such as an emphasis on PSC accounting, are complementary to but different from the Magnuson-Stevens Act requirement to achieve a scientifically sound sampling design and achieve random samples and representative data of fishing trip behavior. Meeting diverse monitoring objectives sometimes requires tradeoffs, but NMFS generally strives to achieve sampling goals of obtaining statistically reliable data on fishing trips which also incorporate other monitoring objectives. The current allocation strategy (15 percent baseline threshold plus optimization) may change in the future with new information, but has so far provided a balance between reducing variability of discard estimates, prioritization of PSC-limited fisheries, and the need to reduce spatial gaps in observer coverage in the partial coverage category (i.e., spatial representativeness).

Figure ES- 2 Summary of Council and NMFS monitoring objectives for the Observer Program, and existing partial coverage program elements that impact these monitoring objectives



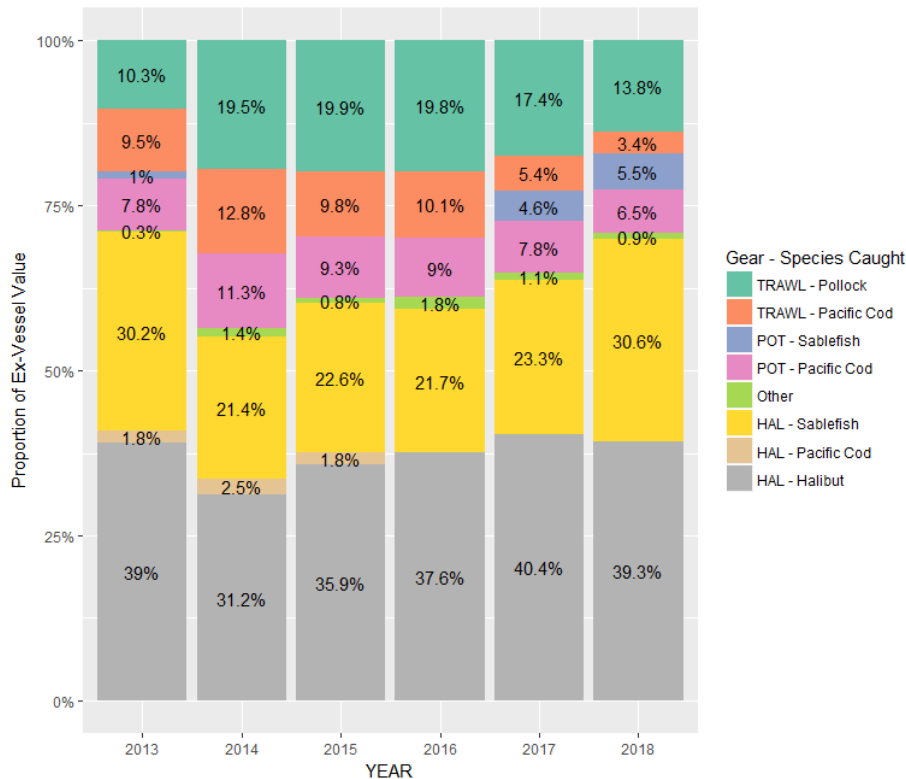
Observer program funding since 2013

 *For more info, see Sections 3.4 and 4.2.1*

NMFS provided \$4.5 million in startup funding in 2012 to set up contracts to implement the restructured program in 2013. Lacking Federal start-up funds, industry would have been assessed the 1.25% ex-vessel fee *in addition to* observer expenses under the old program for at least one year, in order to build up the funds necessary to transition to the new system. Since that startup year, the observer fee revenue has provided the majority of funding for the program, however there has continued to be a substantial contribution of Federal funding in most years. Excluding startup funds for observer deployment in 2013, the observer fee revenues funded 68 percent of observer deployment costs (\$18.2M) in the partial coverage category, with Federal funding accounting for the remaining 32 percent of observer deployment costs (\$8.7M) (Section 3.4). Including startup funds, Federal funding accounts for 42 percent of total deployment costs since 2013 (\$13.2M).

The observer fee is based on ex-vessel landings, and the primary species that are harvested within the partial coverage category are halibut, sablefish, Pacific cod, and pollock. Together, those species have consistently accounted for 98% of the ex-vessel revenues subject to the partial coverage fee. The bulk of fee revenues have been generated by the hook and line gear sector, specifically with catch of halibut and to a slightly lesser extent sablefish. The two IFQ species, halibut and sablefish, yield a far greater value per pound and thus contribute more in potential observer fee revenues on a per pound basis. Broken out by gear types, trawl gear lands by far the greatest volume of catch, however with the considerably lower price per pound, it contributes a smaller proportion overall to fee revenue. Figure ES- 3 illustrates the relative percentage share of each gear sector and target species' contribution to the total fee revenue.

Figure ES- 3 Proportion of annual ex-vessel value of catch subject to observer fees, by species and gear type, 2013 through 2018.



Sources: NMFS Alaska Region Catch Accounting System (CAS), Restricted Access Management (RAM) IFQ Landing Data, IFQ Buyer Reports, and Observer Fee Standard Prices; and CFEC Gross Earnings (sourced as AKFIN's Comprehensive Fish Ticket dataset)

Note: Fees were adjusted for inflation using the 2018 Annual Urban Alaska (formerly Anchorage) Consumer Price Index (<http://live.laborstats.alaska.gov/cpi/index.cfm>, accessed 6/5/2019).

Analysis of Alternatives


Factors affecting the analysis

Supplemental Federal funding: This analysis assumes that no supplemental funds will be used to fund observer coverage, and EM and at-sea coverage is based solely on observer fee revenues.

EM costs: The analysis also assumes that EM costs would be deducted from the fee budget prior to determining the observer deployment plan. Beginning in 2020, NMFS will begin to contemplate supporting the fixed gear EM program through the observer fee, and apportionment of the total observer fee funding pool between EM and observer coverage will be determined through the Annual Deployment Plan process. One intention of the EM program is to be able to achieve a higher selection rate for less cost than the current cost per observer day, so that in a holistic program including both EM and observers, it may be possible to achieve monitoring goals by reducing the average daily cost of the program as a whole. While the initial cost of installing equipment on EM vessels is relatively high, this cost is only borne by the program when new vessels come into the program or when systems need to be replaced. At the same time, existing research suggests that if not used often, an EM system is not necessarily more accurate or more affordable than an observer, and a large proportion of small boats in the fixed gear sector are not ideally suited for making EM economically efficient. A simplified approach to EM cost estimation results in a coarse estimate of \$1 million to maintain a stable, mature program of 165 EM vessels (Section 3.4.1).

Past scenarios indicative of future reality: This analysis evaluates how a change in the fee would have affected revenue using the years 2013-2018 as a guideline. However, just because the landings subject to observer fees in recent years are within a certain range does not guarantee that landings in the future will fall within that same range. Similarly, just because ex-vessel prices were within a certain range in the past does not mean they will continue to fall within that range in the future. The ex-vessel value of catch is expected to fluctuate, as are the catch quotas.

Fee Revenue under the Alternatives

 [For more info, see Section 4.2.1](#)

The possible increases associated with each of the specific alternatives and options are illustrated in Figure ES- 4. Any increase of the observer fee percentage would result in an increase to the fee revenues compared to the status quo rate of 1.25%. Options under the alternatives yield an average potential increase to fee revenue ranging from \$762,000 to \$2.3 million.

Figure ES- 5 identifies the proportion of years between 2013 and 2018 where fee revenues fell below each funding level, for a range of funding levels at each fee percentage or alternative and option. Not surprisingly, as the fee percentage rises, fewer recent years would have failed to meet funding levels. For example, at the 1.25% fee level or Alternative 1, observer fee revenues in 5 of the last 6 years (0.83) fell below \$4 million. At the 1.5% fee, or Alternative 2 Option 1, no recent years fell below \$4 million. This figure also indicates that based on recent years, there are funding levels that are not obtainable (\$7.5 million) even if the fee is raised to the cap (2.0%).

Figure ES- 4 Possible Increases to Observer Fee Revenues from the Status Quo Rate in Recent Years for each Alternative and Option, 2013 through 2018, in inflation adjusted dollars

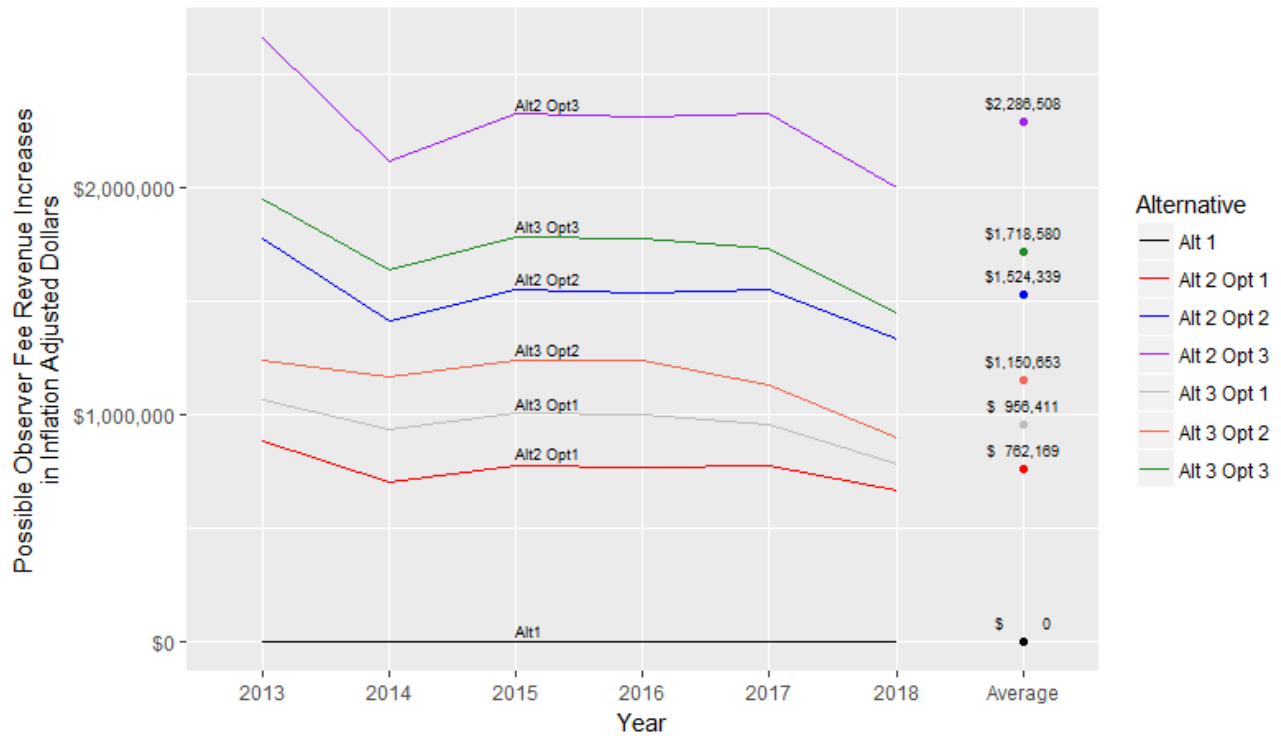
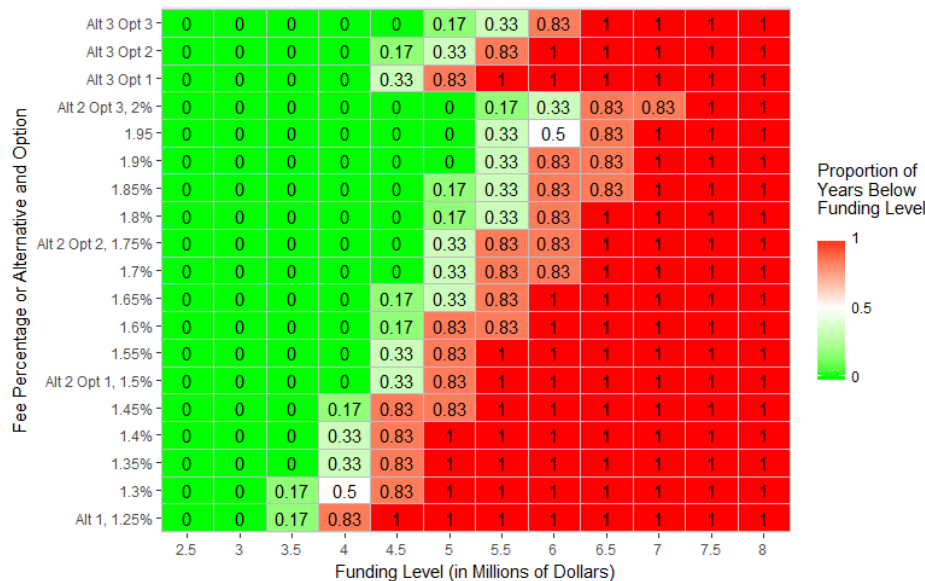


Figure ES- 5 Proportion of Years between 2013 and 2018 that Observer Fee Revenues Fell Below Various Funding Levels (in Millions of Dollars), based on Different Fee Percentages Applied to the Ex-Vessel Value of Halibut, Sablefish, Pacific Cod, and Pollock Catch



Note: Proportions reflect the number of years out of six, between 2013 and 2018, that observer fee revenues fell below a particular funding level. This figure does not take into account funding sources aside from observer fee revenues.

Sources (both figures): NMFS Alaska Region Catch Accounting System (CAS), Restricted Access Management (RAM) IFQ Landing Data, IFQ Buyer Reports, and Observer Fee Standard Prices; and CFEC Gross Earnings (sourced as AKFIN's Comprehensive Fish Ticket dataset)

Fee revenue differences in this figure were adjusted for inflation using the 2018 Annual Urban Alaska (formerly Anchorage) Consumer Price Index (<http://live.laborstats.alaska.gov/cpi/index.cfm>, accessed 6/5/2019).

Table ES- 1 provides the possible revenue remaining after deducting EM costs, based on the average fee revenue increase for fee percentage increases applied to all sectors equally ranging from 1.25% to 2%. The estimated cost of a stable, 165 vessel fixed-gear EM program, \$1 million, is highlighted in red.

Table ES- 1 Remaining Revenue for Observer Coverage after a Range of Possible EM Costs are Removed from Observer Fee Revenues at Different Fee Percentages, Based on the Average Fee Revenue for All Gears between 2013 and 2018

Fee %	Avg. Fee Revenue for All Gears	Alts and Options	Remaining Fee Revenue after a Range of Possible EM Costs					
			\$250,000	\$500,000	\$1,000,000	\$1,500,000	\$2,000,000	\$2,500,000
1.25	\$3,810,846	Alt. 1	\$3,560,846	\$3,310,846	\$2,810,846	\$2,310,846	\$1,810,846	\$1,310,846
1.3	\$3,963,280		\$3,713,280	\$3,463,280	\$2,963,280	\$2,463,280	\$1,963,280	\$1,463,280
1.35	\$4,115,714		\$3,865,714	\$3,615,714	\$3,115,714	\$2,615,714	\$2,115,714	\$1,615,714
1.4	\$4,268,148		\$4,018,148	\$3,768,148	\$3,268,148	\$2,768,148	\$2,268,148	\$1,768,148
1.45	\$4,420,582		\$4,170,582	\$3,920,582	\$3,420,582	\$2,920,582	\$2,420,582	\$1,920,582
1.5	\$4,573,016	Alt 2. Opt. 1	\$4,323,016	\$4,073,016	\$3,573,016	\$3,073,016	\$2,573,016	\$2,073,016
1.55	\$4,725,449		\$4,475,449	\$4,225,449	\$3,725,449	\$3,225,449	\$2,725,449	\$2,225,449
1.6	\$4,877,883		\$4,627,883	\$4,377,883	\$3,877,883	\$3,377,883	\$2,877,883	\$2,377,883
1.65	\$5,030,317		\$4,780,317	\$4,530,317	\$4,030,317	\$3,530,317	\$3,030,317	\$2,530,317
1.7	\$5,182,751		\$4,932,751	\$4,682,751	\$4,182,751	\$3,682,751	\$3,182,751	\$2,682,751
1.75	\$5,335,185	Alt. 2 Opt. 2	\$5,085,185	\$4,835,185	\$4,335,185	\$3,835,185	\$3,335,185	\$2,835,185
1.8	\$5,487,619		\$5,237,619	\$4,987,619	\$4,487,619	\$3,987,619	\$3,487,619	\$2,987,619
1.85	\$5,640,053		\$5,390,053	\$5,140,053	\$4,640,053	\$4,140,053	\$3,640,053	\$3,140,053
1.9	\$5,792,486		\$5,542,486	\$5,292,486	\$4,792,486	\$4,292,486	\$3,792,486	\$3,292,486
1.95	\$5,944,920		\$5,694,920	\$5,444,920	\$4,944,920	\$4,444,920	\$3,944,920	\$3,444,920
2.0	\$6,097,354	Alt. 2 Opt. 3	\$5,847,354	\$5,597,354	\$5,097,354	\$4,597,354	\$4,097,354	\$3,597,354


Sources: NMFS Alaska Region Catch Accounting System (CAS), Restricted Access Management (RAM) IFQ Landing Data, IFQ Buyer Reports, and Observer Fee Standard Prices; and CFEC Gross Earnings (sourced as AKFIN's Comprehensive Fish Ticket dataset)

¹ Fee revenues in this table only reflect halibut, sablefish, Pacific cod, and Pollock. Other groundfish have been excluded, because other groundfish accounted for, on average, 2% of the ex-vessel value subject to observer fees.

² All fee revenues are shown in inflation adjusted dollars. Ex-vessel value and fee revenues were adjusted for inflation using the 2018 Annual Urban Alaska (formerly Anchorage) Consumer Price Index (<http://live.laborstats.alaska.gov/cpi/index.cfm>, accessed 6/5/2019).

³ The basis of the fee revenue in this table is the mean annual ex-vessel value of halibut, sablefish, Pacific cod, and Pollock between 2013 and 2018 on all gears.

Gap Analysis

 For more info, see Section 4.2.2

One objective of the Observer Program is to provide data that is representative of fishing activities at the scales needed by data users (stock assessors, inseason managers, industry groups, and other scientists and researchers). As funding levels increase, a higher proportion of trips are selected for coverage, which in turn reduces the total number of gaps and allows more unobserved trips to obtain data from observed trips that are geographically closer and occur in a smaller time span (resulting in higher resolution data).

However, cost per observer day is not constant between budget scenarios – the average cost per-observer-day decreases as more observer days are purchased. Table ES- 2 explores different coverage rates that could be afforded at specific observer budgets, which are based on applying the alternative observer fee percentages to the 2019 budget and calculating the cost per day and days purchased. Resulting strata-


specific selection rates (via the 15% baseline + optimization strategy in the ADP) are then shown for fishing effort in 2018. While the analysis does not include an option to reduce the fee percentage to 1%, the data point is included to provide a range of potential revenue outcomes to account for uncertainty in revenue and EM costs, which are not deducted from this table. The analysis also includes two different sets of cost assumptions, labeled ‘Upper and ‘Lower’, which can be used to represent lower and upper bounds of cost efficiency, respectively. These budget scenarios are used in the gap analysis, and indicate that the increase in data resolution has a non-linear correlation with the increase in budget, due to the change in cost per day (Figure 13 to Figure 16 in Section 4.2.2). Breakpoints are seen in the plots where there is a rapid increase in the proportion of trips for funding levels between \$3.7 and \$3.3 million, on the old and new cost curves respectively. A second breakpoint is also apparent at budget levels where the 15% base hurdle is met and additional days are optimized differentially among the strata, which in this simulation indicates higher coverage on trawl vessels, at a budget level of between approximately \$4.7 and \$4.3 million.

Table ES- 2 Observer budgets, observer fee percentage, cost per day, and days purchased under 2019 budget scenarios

Resulting strata-specific selection rates (via the 15% baseline + optimization strategy in the ADP) are also shown for fishing effort in 2018. The table uses two cost curves with different assumptions, which can be used to represent lower and upper bounds of cost efficiency, respectively.

Observer Budget	Fee %	Cost Per Day		Days		Deployment Strata	Selection Rate	
		Upper	Lower	Upper	Lower		Upper	Lower
\$3,048,677	1.00	\$1,836.41	\$1,648.12	1,660	1,850	Hook and Line	9%	10%
						Pot	9%	10%
						Trawl	9%	10%
						Tender Pot	9%	10%
						Tender Trawl	9%	10%
\$3,810,846	1.25	\$1,770.27	\$1,446.59	2,153	2,634	Hook and Line	11.6%	14.3%
						Pot	11.6%	14.3%
						Trawl	11.6%	14.3%
						Tender Pot	11.6%	14.3%
						Tender Trawl	11.6%	14.3%
\$4,573,015	1.50	\$1,526.44	\$1,279.57	2,996	3,574	Hook and Line	15.8%	18%
						Pot	15.1%	15.5%
						Trawl	17.2%	22.9%
						Tender Pot	15.2%	15.8%
						Tender Trawl	17.8%	25.2%
\$5,335,184	1.75	\$1,389.71	\$1,182.08	3,839	4,513	Hook and Line	19%	21.5%
						Pot	15.6%	16%
						Trawl	25.5%	32.1%
						Tender Pot	16.1%	16.7%
						Tender Trawl	28.6%	37.2%
\$6,097,354	2.00	\$1,302.23	\$1,118.18	4,682	5,453	Hook and Line	22.1%	25%
						Pot	16.1%	16.6%
						Trawl	33.8%	41.3%
						Tender Pot	16.9%	17.7%
						Tender Trawl	39.3%	49.2%

Catch Accounting and Inseason Management

 [For more info, see Section 4.2.3](#)

Having area-specific information generally allows inseason managers to manage based on the characteristics of that fishery. For the most part, management is based on area-level information under current coverage levels. When area-level information is unavailable, managers must account for the increased uncertainty associated with estimation that is not similar to the unobserved fishing event. These management decisions in turn influence the fleets ability to fully utilize the resource and operate in an efficient manner. Further, the risk of making a conservative decision is increased when information is unavailable for a fishery, resulting in either closing too early or closure too late based on variable or biased information.

Increasing coverage above the baseline will likely improve inseason estimates by reducing data gaps during the season and increasing the probability of obtaining coverage in the WGOA and BSAI. The analysis in Section 4.2.2 provides information on how changes in the fee amounts would alter expected gaps. Generally, even at higher fee amounts and under the current catch accounting system methodology, some gaps will likely remain in low effort areas such as Prince William Sound, the Western GOA, and the BSAI. Some of these areas likely drive the FMP gaps that persist even at higher fee levels in the gap analysis, whereas areas with a lot of effort will see temporal improvements in the amount of data available within the reporting area throughout the fishing season (i.e., lower effort periods having coverage). Coverage below the baseline is likely to open up more estimation gaps (Section 4.2.2) and require aggregation of observer information.

Probable Environmental Impacts

 [For more info, see Section 4.5](#)

The analysis builds on several recent analyses of the Observer Program to consider potential environmental and cumulative impacts of raising the observer fee percentage on the biological and physical components of the environment. The Observer Program is a monitoring program that does not increase fishing activity or change the measures currently in place to protect the physical and biological environment. Overall fishing effort, including the spatial and temporal distribution of fishing effort, in the groundfish and halibut fisheries is not expected to change under the alternatives. The changes considered in this action would not cause adverse impacts to the physical or biological environment. Therefore, all potential impacts on the environment are assumed to be beneficial.

Regulatory Impact Review – Economic Impacts

 [For more info, see Section 5](#)

The Regulatory Impact Review (RIR) in Chapter 5 of this analysis examines the benefits and costs of a proposed regulatory amendment to adjust the partial coverage observer fee as part of the Council's fisheries research plan for monitoring in the partial coverage groundfish and halibut fisheries of the GOA and BSAI. In particular, this analysis builds off of the assessment conducted and presented in Chapter 4 of this document, including the Revenue and Gap analysis in Section 4.2 and the Analysis of Catch Accounting and Inseason Management impacts (Section 4.3). This information provided in Chapter 4 is woven into the RIR to bolster the background context on the status quo conditions of the partial observer coverage fisheries as well as contributing to the assessment of social costs and benefits, and distributional impacts of adjusting the fee for stakeholders. The RIR concludes with a qualitative assessment of the proposed action's net benefits to the Nation.

As required of an RIR, this assessment of marginal effects is done by comparing the marginal costs and benefits of the action alternatives (Alternative 2 and 3) relative to the no action alternative (Alternative 1). It is necessary for this analysis to use past conditions to inform potential future impacts; however, the RIR highlights two caveats about the relationship between the fee collected and observer coverage rates able to be achieved. The analysis first notes that increasing the fee percentage does not strictly mean that fee revenues will increase relative to previous years. Gross revenues are also a function of the harvest and standard ex-vessel prices, which may be independent of fee percentage charged against gross ex vessel revenue. For example, some of the primary species which are harvested within the partial coverage

category, have seen a decline in harvestable catch limits in recent years (e.g. Pacific cod), which in turn affects the total gross revenue generated in those fisheries.

In addition, the relationship between fee revenues generated and monitoring capabilities is not always direct or necessarily linear. In the recent past industry-paid fees have generally been supplemented by Federal funding; an additional factor that may have been suggested will change in the near future (see Section 2.5) further decreasing the amount of coverage available relative to previous years. The cost of monitoring is expected to grow steadily at around the broader economy's rate of inflation, driven by factors like wages and travel. The potential for an increase in observer cost-per-day and the addition of EM costs into the Observer budget can also influence the level of monitoring that can be available to accomplish sampling and monitoring objectives.

Despite these caveats about the relationship between fee revenue, overall deployment budgets, and resulting coverage rates, the analysis in the RIR (as well as in the EA) demonstrates the fee revenues that may be achieved through the action alternatives relative to no action. For instance, Table 11 and Table 12 demonstrate the amount of fee revenue that could be achieved given the range of fee percentages proposed among the alternatives and based on previous conditions of gross ex vessel value in each sector. The Gap Analysis in Section 4.2 applies mean revenues from the Revenue Analysis retrospective study to the exploration of how a higher fee percentage could achieve the baseline threshold, granting some assumptions about the distribution of fishing effort. If fishery conditions shift (e.g. TAC changes, prices change, cost-per-day changes), this also shifts the funding level available or coverage afforded for Observer Program. However, the RIR highlights that the action alternatives would continue to provide greater monitoring opportunity to strive for the 15 percent baseline coverage and a greater potential for the eight additional monitoring objectives to be met relative to the amount of revenue achieved under the 1.25 percent set through the no action alternative. The impact analysis in the RIR (Section 5.6.3 - Section 5.6.5) further breaks out these potential impacts by alternatives and options.

Stakeholders would experience distributional impacts across each alternative. Costs are more easily quantified in this action, as the bulk of the costs are directly experienced by the harvesters and processors who pay the fee. The direct costs under the two action alternatives would be the marginal increase in harvesters' and processors' gross ex vessel revenue paid to the Observer Program relative to the amount required under the 1.25 percent fee. Direct and indirect costs may also be felt by harvesting crew, communities, and associated businesses. Alternative 2 would increase these fees evenly across fishery sectors, while Alternative 3 would increase the fee percentages variably across fishery sectors.

An additional fee would be most disruptive to vessels in any years where they are operating nearest their profit margin. Partial coverage fisheries in the North Pacific represent a wide range of operation types, with varying private costs, and associated taxes and fees. While this analysis does not have information on firm-level or sector-level net revenue in considering the distributional impacts of increasing the observer fee variably by sector, it is important to take under consideration the previous existence of varying net revenues for these operations, in addition to the sector-based distributional impacts that would inherently be imposed under the options considered in Alternative 3. Alternative 3 could either compound or moderate the negative distributional effects of the fee across harvesters, harvesting crews, processors, and associated communities, depending on the net revenue of operators associated with partial coverage fisheries.

Quantifying the incremental benefits stakeholders experience from the use of at-sea data is difficult; particularly in regard to how a specific fee percentage increase relates to a dollar value of benefits due to the indirect relationship and the suite of independent factors that influence how that fee percentage translates into area and gear-specific data. Sampling from larger scales of time and space may not be as representative and can produce higher levels of uncertainty. This can affect the participating stakeholder (harvesters, processors and associated communities) through fisheries management decisions that are

made and the ability to achieve monitoring objectives that may align with some of the priorities of stakeholders.

For instance, Section 4.3.6 and Table 18 describe examples of data-rich or data-poor situations that resulted in NMFS Inseason Management action, which in turn affected the fleet. For instance, when there is low observer coverage in an area and one trip results in a high PSC estimate, that rate has more influence. When catch is used that is less spatially or time-specific, this can result in information being used that is not as specific to a fishery (e.g. using the FMP-level). Lower levels of information for a specific strata can mean more conservative closures based on PSC or TAC management, sometimes marginally reducing fishing opportunity due to directed species or PSC. Uncertainty and inefficiency in management (e.g. it requires lead-up time for NMFS to publish an opener/ closure notice) can also make it more difficult for the fleet to manage their PSC. NMFS Inseason Management's decisions play a critical role and can impact the fleet's ability to fully utilize the resource and reduce catch of unwanted species. Thus, having a high level of area-specific information can diminish inefficiencies and improve the certainty in management, ultimately benefiting harvesters and harvesting crew.

If maintaining or enhancing the functionality of the observer program in the face of funding challenges allows managers to keep fisheries open in-season, track PSC in near-real time, and account for incidental catch of marketable species, processors and communities benefit where better management tools (data) result in greater availability of the TAC and more product delivered.

Moreover, the additional funding able to be achieved in Alternative 2 and 3 relative to Alternative 1 may create a higher likelihood that baseline coverage may be met, and improve the likelihood of achieving the monitoring objectives. To the extent these monitoring objectives align with the interests of stakeholders (including the broader National level as analyzed in Section 5.9), additional benefits may manifest as monitoring can better achieve policy goals.

In recommending an observer fee percentage, the Council will need to consider the sampling needs for observer and EM data, and whether those needs are currently being met. There is no specific threshold of coverage below which NMFS cannot sustainably manage Federal fisheries. However, there are levels of coverage below which there is an increased risk of non-representative data, or below which there may be data gaps that could impact the collection of biological samples for stock assessments or Inseason management decisions. At lower levels of coverage there is risk that observer data become less useful for achieving random, gear-specific, area-specific, or species-specific sampling. At lower levels of observer coverage, fishery managers may take more conservative or precautionary approaches towards management decisions.

Comparison of Alternatives for Decision Making

 **For more info, see Section 5.6**

This analysis considers raising the partial coverage observer fee to continue to improve the Observer Program, maintain and enhance the Council's ability to meet monitoring objectives and fund deployment of electronic monitoring systems, and do so in an ever-changing revenue/cost landscape.

The two action alternatives are meant to address this objective, relative to the no action alternative, by increasing the observer fee percentage. The no action alternative, Alternative 1, would maintain the current level of the fee at 1.25 percent of the gross ex vessel revenue for participants of partial coverage fisheries. Alternative 2 would raise the fee to some amount up to 2 percent, equally across all fisheries (i.e., gear types). Alternative 3 would raise the fee up to 2 percent, but be implemented differentially across the fisheries (i.e., gear types).

Given trends of decreasing TACs in some fisheries (i.e., Pacific cod) and uncertainties related to future abundance, effort, and prices, any of the alternatives could result in some phenomenon of accruing lower revenues from the fee than was possible in years past.

There are many unknowns in this analysis, including future fixed gear EM costs, the potential for EM to be implemented on pollock trawl catcher vessels, and potential contracting changes that could emerge from ongoing cost/coverage efficiencies work by the FMAC partial coverage Subgroup. Additionally, there are several potential Observer Program changes that might occur after the Council fully considers this action. The Council plans to consider changing the way observer coverage is deployed on vessels delivering to tenders after this fee analysis will have been completed. Also, NMFS awarded a new observer contract in August 2019, which may result in changes to existing cost curves (i.e., the marginal cost of an additional observer-day).

Although there is evidence that certain levels of observer coverage reduce the likelihood of undesirable data gaps, there is no simple definition of what a minimum level of observer or EM coverage should be. NMFS has found from studies in Alaska and elsewhere that even at low deployment rates, statistically reliable estimates can be made. NMFS does not provide a “hard line” that indicates a single rate that results in the whole observer data collection program failing to collect reliable information. There is not a specific amount of coverage at which NMFS is unable to manage the groundfish fisheries in the BSAI or GOA; rather there are levels of observer coverage at which NMFS may not have data in specific strata or fisheries.

Data quality is a continuum, and a single threshold is not appropriate, nor desired, for such a complicated and diverse program. Instead, the Annual Deployment Plan process provides a risk assessment and information to guide policy decisions about where to reduce the risk of no coverage, rather than a single defining rate where data becomes unreliable (which would only be relative to a specific sampling objective and measure). The flexibility afforded NMFS and the Council through the Annual Deployment Plan process allows the Observer Program to adapt, as new scientific information is available, and to inform future changes in estimation methods that will result in better use of observer data under existing funding levels.

The Council has consistently supported gathering enough data to ensure that certain monitoring objectives are accomplished.

Alternative 1 would maintain the current fee level. Under Alternative 1, financial impacts on vessels and processors would be minimized, but this alternative could result in decreasing observer coverage rates in the partial coverage category due to the expected decrease in availability of supplementary Federal and grant funding to support observer and EM deployment as well as potentially decreasing fee revenues under the status quo.. Alternative 2 would increase the fee percentage, impacting vessels and processors, while increasing the relative amount of fee revenue available to the partial coverage category of the Observer Program. Alternative 3 would increase the differentially across fisheries (gear types), taking into account stability and value of each fishery over time, as well as relative coverage needs.

Within the partial coverage category, the higher revenue-producing fisheries (i.e., hook-and-line and pot) have contributed more to fee revenues since 2013, while the relatively lower producing fisheries (i.e., trawl and jig) have been contributing less. Effort and participation in the trawl fisheries are relatively stable over time, while jig is unstable and smaller in scale. There is an ongoing shift taking place between hook-and-line and pot, with decreased effort in hook-and-line compensated by increased effort in pot).

Summary of economic effects related to the alternatives to adjust the observer fee percentage

	Alternative 1 No action	Alternative 2 Increase the observer fee up to 2% to all sectors subject to partial coverage fee	Alternative 3 Increase the fee up to 2% for individual gear sectors subject to partial coverage fee
Proposed fee as a percent of gross ex vessel revenue	1.25%	1.25 – 2.0 %	HAL: 1.25% - 2% Pot: 1.25% - 2% Trawl: 1.25% - 2% Jig: 1.25% - 2%
Types of benefits and positive distributional impacts, relative to no action			
Benefits to stakeholders associated with partial coverage fisheries	No change	<ul style="list-style-type: none"> Incremental improvements in management certainty, which can reduce inefficiency in management (multiple opening/ closures) and decrease the level of conservative management actions. This can in turn improve the fleet's ability to fully utilize the resource and reduce catch of unwanted species. Relative increase in revenue available for monitoring can increase the likelihood of addressing monitoring objectives, which may align with the interests of some stakeholders in partial coverage 	
Benefits to those associated with other types of commercial fishing	No change	<ul style="list-style-type: none"> Incremental improvements in spatio-temporal data on bycatch and PSC use can indirectly benefits the primary users of those species Relative increase in revenue available for monitoring can increase the likelihood of addressing monitoring objectives, which may align with the interests of some stakeholders outside of partial coverage 	
Benefits to the Nation	No change	<ul style="list-style-type: none"> Decrease in data gaps and area/ gear-specific information allows in incremental improvements to the benefits of robust observer data Greater information on seabirds and marine mammals that allow for more informed ecosystem assessments benefiting a wide range of stakeholders Increased assurance that the public receives unbiased information about the use of a public resource 	
Types of cost and negative distributional impacts, relative to no action			
Direct costs to harvesters and processors that pay the fee	No change	<ul style="list-style-type: none"> An increase in fees paid up to 0.75% of the gross ex vessel revenue <ul style="list-style-type: none"> Fee is split between the processors and harvesters The level of impact depends on the extent to which harvesters/processors are operating near their profit margins and their ability to pass along some of the burden of cost Increasing evenly across sectors • Increasing variably across sectors • Variable fee may either compound or moderate the negative distributional effects of the fee, depending on the net revenue of the partial coverage sectors 	
Direct/ indirect costs to harvesting crew	No change	<ul style="list-style-type: none"> If fees are deducted from revenue prior to establishing crew shares, crew wages would decline If an increased fee results in fleet consolidation, crews could be negatively impacted by loss of opportunity 	
Direct/ indirect costs to communities	No change	<ul style="list-style-type: none"> Limited indirect impacts expected from incremental increase in the fee Communities would be affected if there are any changes in where fishing, processing, or observer deployment occurs. Possible induced effects from a slight reduction in income and spending from those associated with partial coverage fisheries Possible induced effects from a slight reduction in income and spending from those associated with partial coverage fisheries, which could vary by gear sector 	

Changes from the Initial Review Draft to the Public Review Draft

Throughout this document, the text has been revised for consistency and clarity and updates to the analysis and data have been made. The following list is a summary of these changes.

Chapters 1, 2, and 3

- Alternatives and options revised based on April 2019 Council motion.
- Revised section 2.5 to better identify ongoing activities to address cost efficiencies in the partial coverage category.
- Revised Chapter 3 to add more background on Observer Program Restructuring, Improve the description of Council and NMFS' monitoring objectives, and add additional summary information in Section 3.4 about observer and EM funding, coverage levels achieved, and realized costs since 2013.

Chapter 4 - Environmental Assessment

In Section 4.2.1 - Fee Revenue Analysis:

- 2018 data added to the figures and tables.
- The fee revenue tables were updated to identify the revised Alternatives and options identified in April 2019.
- Per the Council's direction, the revenue time period used includes the years 2013-2018, or the "low revenue" period presented in the Initial Review Draft which corresponds with the years following the Observer Program restructure.
- The time-series of annual catch subject to Observer Fees (Figure 6) includes summaries by gear and an overall summary.
- The time-series of ex-vessel value (by species and by gear) were consolidated into a single figure (Figure 8).
- The possible Observer Fee revenues at different fee percentages were split into two tables: one with summaries by gear type and a second with summaries for all gears combined (Table 11 and Table 12).
- A figure was added that shows the possible increase in revenues compared to the status quo rate (Figure 10).
- In addition to rows reflecting a single fee percentage, additional rows were added to the revenue risk figure (Figure 11) reflecting Alternative 3 with different rates depending on the gear sector.
- An updated value was used to adjust for inflation.

In Section 4.2.2 - Trip Level Data Gap Analysis:

- The trip level gap analysis was updated to use 2018 fishing effort (2017 fishing effort was used in the April 2019, Initial Review Draft).
- The methods used to estimate observer cost per day were updated. The updated cost curve is less conservative than the previous cost curve, and the gap analysis presents the results using both methods as a range.
- The computational methods for the gap analysis was also updated - it now uses a deterministic simulation (opposed to the stochastic simulation in the Initial Review Draft) which allows for higher resolution results.
- Finally, coverage rates and the gap analysis are now presented as a function of the budget available for observer deployment rather than the fee percentage used in the Initial review Draft. This allows a more direct interpretation of the potential impacts to coverage rates and data gaps at different funding levels expected under the different Alternatives.

- Instead of a table showing effective fee percentages, the amount of fee revenue remaining after EM costs are “taken off the top” is provided (Table 16).

A new analysis of catch accounting and Inseason management in Section 4.3

- This section provides an overview of the Catch Accounting System estimation of discards, Inseason Management activity, and fishery complexity and
- Minor revisions in Section 4.5 to clarify probable environmental impacts.
- Minor revisions in Section 4.5.3 to clarify expected cumulative impacts of reasonably foreseeable future actions to currently being considered by the Council.
- Added Section 4.6 NEPA Summary.

Chapter 5 - Regulatory Impact Review

- Revised alternatives to reflect the Council’s April 2019 changes (Section 5.3)
- Revised Table 22 (Section 5.5.1.1) to demonstrate estimated purchasing power of industry-paid observer fees versus what is estimated to be afforded under additional supplementary Federal funding, based on the pre-season ADP’s estimated budget.
- Updated/ revised the “Description of Partial Observer Coverage Fisheries” (Section 5.5):
 - To represent updated and augmented information on fee revenue, EM costs, catch and value from the EA as well as new information on market trends.
 - Switched Figure 35 (Section 5.5.1.2) to gear types rather than species types to see the break-out of fee revenue that may be relevant to Alternative 3.
 - Updated Figure 36 and Figure 37 (Section 5.5.2.2) with data from 2018.
 - Added new Figure 38 and Figure 39 (Section 5.5.3.1) to demonstrate the break-out of gear type by associated community as requested by the SSC. These figures allow for a greater understanding of the potential distributional community impacts of Alternative 3.
 - Provided slightly more clarity in sections on “Other Fees and Taxes in the Partial Observer Coverage Category” and “Safety Considerations” (Section 5.5.4 and 5.5.5).
- Revised “Analysis of Impacts” in the RIR (Section 5.6):
 - Separated, consolidated, and amended the description of “Impacts to Stakeholder Groups” (Section 5.6.1). Based on SSC feedback, this includes more clearly articulating potential benefits from the action alternatives, particularly building off of the new section on Inseason Management’s use of observer data and how that may translate into fleet effects.
 - Separated, consolidated, and updated the description of the “Impacts in Relation to Monitoring Objectives” (new Section 5.6.2). This section was updated with reference to the new/ updated data provided throughout the document as well as refining the analytical scope of evaluating action alternatives relative to no action (rather than the status quo conditions), as is required in an RIR.
 - Evaluation of the alternatives now includes discussion of and reference to the new options introduced by the Council in April 2019. This includes analysis on community and stakeholder distributional impact under the options for Alternative 3.
- Revised section on net benefits to the Nation (Section 5.9) based on SSC’s request to better incorporate a description of benefits.

Additional Changes

- Added MSA National Standards discussion
- Revised Appendix D using updated methods and 2017 fishing effort.
- New Appendix E to describe changes to the methods used to estimate the Observer cost per day
- New appendix F that includes the Gap Analysis as presented in April 2019 Initial Review Draft

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