

Implementation Plan: North Pacific Groundfish Observer Program Restructuring October 2009

1 Introduction

This document constitutes a draft agency implementation plan, should the Council and Secretary of Commerce take future action to authorize NMFS to assess a fee on various fishery sectors, and deploy observers when and where the agency determines necessary for conservation and management purposes. This plan is intended to be subsumed in the analysis (Environmental Assessment/Regulatory Impact Review/Initial Regulatory Flexibility Analysis, or EA/RIR/IRFA) that will be developed to restructure the groundfish Observer Program.

1.1 Background

The existing North Pacific Groundfish Observer Program (Observer Program), in place since 1990, establishes coverage levels for most vessels and processors based on vessel length and amount of groundfish processed, respectively (see Appendix 1). Vessels and processors contract directly with observer providers to procure observer services to meet coverage levels in Federal regulation. During the past several years, the Council, NMFS, and the Council's Observer Advisory Committee (OAC) have been working to develop a new system for observer funding and deployment in the Observer Program. The concept previously proposed was often called 'observer restructuring.' In general, the program would be 'restructured' (i.e., change the service delivery model) such that NMFS would contract directly with observer providers for observer coverage, and this would be supported by a broad-based user fee and/or direct Federal funding. Earlier attempts to restructure the program frequently reference 'the research plan', due to the fact that the authority to collect fees from fishery sectors to pay for observers is included in the Magnuson-Stevens Act (MSA) under the authority to prepare a 'fisheries research plan' for any fishery under the Council's jurisdiction.¹ Concerns with the existing program arise from the inability of NMFS to determine when and where observers should be deployed, inflexible coverage levels established in regulation, disproportionate cost issues among the various fishing fleets, and the difficulty to respond to evolving data and management needs in individual fisheries.

The Council last reviewed an amendment package in June 2006, with alternatives intended to restructure the Observer Program. As part of initial review in February 2006, NMFS and the Council discussed ongoing concerns with not being able to provide a definitive assessment of observer costs under a new service delivery model, due to uncertainty about the applicability of the Services Contract Act and Fair Labor Standards Act. Also at the time, NOAA General Counsel, Alaska Region advised that the current research plan authority provided in the MSA to assess a fee for observer coverage could not be applied to only a subset of the vessels in the fisheries for which the Council and NMFS have the authority to establish a fee program. Therefore, all of the 2006 restructuring alternatives, which assessed different fees against different fisheries or sectors, were likely to require new statutory authorization.

Given the cost and statutory issues, at the time of final action in June 2006, the Council approved an extension of the current program, by removing the December 31, 2007, sunset date in existing regulations, as opposed to restructuring the Observer Program. This action was also recommended to the

¹This authority does not include the salmon fisheries. See Section 313. North Pacific Fisheries Conservation in the Magnuson-Stevens Act.

Council by NMFS and the OAC, given the need for continuing the program in the short-term and the lack of control over Congressional authority and cost issues. The final rule for this action was published on June 13, 2007 (72 FR 32559).

However, as part of its June 2006 motion, the Council recommended that a new amendment proposing restructuring alternatives for the Observer Program should be considered by the Council at such time that: (1) legislative authority is established for fee-based alternatives; (2) the FLSA issues are clarified (by statute, regulation, or guidance) such that it is possible to estimate costs associated with the fee-based alternatives; and/or (3) the Council requests reconsideration in response to changes in conditions that cannot be anticipated at this time. Thus, the previous analysis of the restructuring alternatives was intended as a starting point for a future amendment.

At its April 2008 meeting, the Council tasked staff to develop a discussion paper to evaluate the problem statement, issues, and alternatives in the previous 2006 observer restructuring analysis. The discussion paper was to identify any new issues that had arisen in the meantime, including MSA amendments, the status of cost information, and any relevant changes in the fisheries. Staff was also asked to provide recommendations about possible modifications to the problem statement and alternatives, if necessary. Council, NMFS, ADF&G, and IPHC staff participated in the development of the discussion paper.

The discussion paper was reviewed by the Council at its December 2008 meeting. NMFS recommendations were also provided to the Council in a letter.² In sum, the discussion paper addressed the primary obstacles to restructuring the Observer Program in 2006, as well as recommended changes to the problem statement and suite of alternatives, should the Council initiate a new analysis. Recall that the two primary obstacles to restructuring the program in 2006 were the inability to estimate industry costs, and the lack of statutory authority.

Regarding the cost estimates, during the development of the discussion paper, staff were able to estimate observer labor costs under a new service delivery model based on some relatively safe assumptions. In addition, the MSA stipulates the maximum percent ex-vessel value fee that may be charged for deploying observers (2%), which provides certainty with regard to the upper range of a vessel's fee, should the fee be established as a percentage of ex-vessel value revenues. The paper summarized that for some vessels and processors, the maximum level fee would be more than they currently pay for observer coverage, for others it would be less. Under a daily fee that is based on actual observer costs, the cost estimates would be less certain, mostly due to uncertainty in staff's estimates of non-labor costs. In sum, the discussion paper noted that it is possible to estimate costs of a restructured program; however, this may not provide sufficient certainty for everyone, and one consequence of restructuring the Observer Program is the probable cost increase for some industry participants and NMFS.

Regarding the statutory authority issue, the discussion paper outlined that the reauthorization of the MSA (December 2006) provided the Congressional authority necessary to assess different fees on various sectors of the fisheries, as proposed under the Council's previous restructuring analysis. Changes to Section 313(a) and (b) allow the Council to establish a system, or systems, of fees, which may vary by fishery, management area, or observer coverage level, to pay for the cost of implementing the research plan. Thus, the statutory authority now exists for all of the Council's previous restructuring alternatives; these changes represent a broad authority to assess either a flat fee reflecting actual observer costs, or an ex-vessel value fee not to exceed 2 percent, on a subset of, or all, fishery sectors.

The December 2008 discussion paper also outlined the tradeoffs regarding staff resources and availability. While many of the most prominent issues surrounding the Observer Program that have been brought to

²Letter from D. Mecum, Acting Administrator, NMFS AKR, to E. Olson, Chair, NPFMC. December 3, 2008.

the Council's attention would be readily addressed under a new service delivery model, other issues raised could require regulatory amendments to the existing program. As noted in the problem statement, the current Observer Program structure is inflexible, and issues often arise with seemingly straightforward regulatory fixes and quickly escalate to the level of changing the program structure. The discussion paper noted that NMFS and Council staff would need to be devoted to either program restructuring, or smaller, regulatory amendments, but that both cannot occur simultaneously.

1.2 December 2008 Council motion

Upon review of the December 2008 discussion paper, the Council chose to move forward with restructuring the Observer Program. The Council also approved changes to the 2006 problem statement and suite of alternatives.³ Thus, the following represent the current problem statement and suite of alternatives to be evaluated in an EA/RIR/IRFA for potential Council action:

Problem statement:

The North Pacific Groundfish Observer Program (Observer Program) is widely recognized as a successful and essential program for management of the North Pacific groundfish fisheries. However, the Observer Program faces a number of longstanding problems that result primarily from its current structure. The existing program design is driven by coverage levels based on vessel size that, for the most part, have been established in regulation since 1990 and do not include observer requirements for either the <60' groundfish sector or the commercial halibut sector. The quality and utility of observer data suffer because coverage levels and deployment patterns cannot be effectively tailored to respond to current and future management needs and circumstances of individual fisheries. In addition, the existing program does not allow fishery managers to control when and where observers are deployed. This results in potential sources of bias that could jeopardize the statistical reliability of catch and bycatch data. The current program is also one in which many smaller vessels face observer costs that are disproportionately high relative to their gross earnings. Furthermore, the complicated and rigid coverage rules have led to observer availability and coverage compliance problems. The current funding mechanism and program structure do not provide the flexibility to solve many of these problems, nor do they allow the program to effectively respond to evolving and dynamic fisheries management objectives.

Alternatives:

- Alternative 1. Status quo; continue the current service delivery model.
- Alternative 2. GOA-based restructuring alternative. Restructure the program in the GOA and include all halibut fisheries in the GOA and BSAI. Vessels in the restructured program would pay an ex-vessel value based fee. Retain current service delivery model for the BSAI.
- Alternative 3. Coverage-based restructuring alternative. Restructure the program for all fisheries with coverage of less than 100 percent. Vessels in the restructured program would pay an ex-vessel value based fee. Leave vessels and processors with at least 100 percent coverage under the current service delivery model.

³ In effect, the Council added a phrase to the problem statement that recognizes that the existing observer program does not include observer coverage requirements for the <60' groundfish sector or the commercial halibut sector. The Council also removed Alternative 2 (remove the sunset date from regulations) from the previous suite of alternatives, as it is no longer relevant. Finally, the Council added an alternative for a comprehensive ex-vessel value fee system (Alternative 5).

- Alternative 4. Comprehensive restructuring alternative with hybrid fee system. Restructure program for all groundfish and halibut fisheries off Alaska. Vessels with 100 percent or greater coverage would pay a daily observer fee and vessels with less than 100 percent coverage would pay an ex-vessel value based fee.
- Alternative 5. Comprehensive restructuring alternative that would assess the same ex-vessel value based fee on all vessels in the groundfish and halibut fisheries in the GOA and BSAI.

In addition, the Council's motion included the following language:

The initial review draft analysis will include: (i) the extent to which each alternative addresses the problem, (ii) costs and other impacts on the industry, and (iii) costs and impacts of the alternatives on NMFS.

The Council requests that analysts work first on a description of how NMFS would deploy observers under a restructured observer program (an implementation plan). Analysts will then meet with the OAC to solicit their input on this part of the analysis before the initial draft analysis is completed.

2 Implementation plan framework

The Council specifically requested that staff develop an agency implementation plan as the first step in developing the overall analysis for Observer Program restructuring. The implementation plan is intended to describe how NMFS would deploy observers, should the Council and Secretary of Commerce authorize the agency to assess a fee program and deploy observers when and where the agency determines necessary. This portion of the analysis is critical, and the Council and NMFS determined that it is important for NMFS, the Council, industry, and the public to thoroughly consider and understand how such a program would be put into practice, prior to developing other portions of the analysis (e.g., the fee structure, fee level, etc.). The implementation plan would ultimately become a section of the overall analysis to restructure the Observer Program, and feedback on the plan would help determine the direction on other portions of the analysis.

In response to the Council, this implementation plan addresses the following:

- Funding considerations
- How to collect fees from industry
- Legal guidance on fee authority
- How the agency would contract directly with observer providers
- The sample design envisioned to meet monitoring objectives
- Observer deployment and debriefing logistics (i.e., vessel selection process; notification system, etc.).
- Modifications necessary to existing Federal regulations
- Implementation issues that differ depending on whether partial or comprehensive restructuring is undertaken
- Relative agency costs associated with alternatives
- Projected timeline for full implementation

There are several assumptions that feed into the implementation plan. These are discussed in more detail within the pertinent sections of the plan, but several overarching assumptions are summarized here so that the Council and the public understand the basis of the plan from the start. Staff recognizes that these

assumptions are subject to change, depending upon feedback from the OAC and recommendations from the Council.

Assumption 1: Scope

Upon review of a discussion paper and in development of its motion in December 2008, the Council clarified that the commercial halibut sector is included under all of the action alternatives to restructure the Observer Program (see list of alternatives above). In addition, the Council clarified that the restructuring alternatives do not propose to include the BSAI crab fisheries, which have operated under a separate program since 1988, managed by the Alaska Department of Fish & Game (ADF&G). Crab observer program development has been independent of the Federal groundfish observer program, because the crab fisheries operate under delegated authority to the State of Alaska through the BSAI Crab FMP. Both decisions – to include the halibut sector and exclude the crab sector – also mirror the restructuring alternatives proposed in 2006. Staff of NMFS, ADF&G, and the IPHC supported those decisions, as did the Council. For details, please refer to the December 2008 discussion paper.⁴

In addition, the Council has recognized the limited authority of NMFS to place observers on vessels in State waters. Currently, a vessel owner's required compliance with observer coverage requirements is tied to whether or not the vessel is issued a Federal Fisheries Permit (FFP). In effect, any vessel issued an FFP must comply with federal observer requirements in both federal and State water fisheries, including the State managed groundfish fisheries. All days an FFP vessel fishes in the parallel fishery or a state managed groundfish fishery count towards the days a vessel must carry an observer. Similarly, the days that a FFP vessel carries an observer in the parallel fishery or a State managed groundfish fishery count toward the 30 percent coverage required under federal regulations.⁵ Staff assumes that vessels that carry an FFP that are participating in the federal waters or state waters parallel fisheries would be included in the restructured program. These vessels would be assessed a fee based on the ex-vessel value of their groundfish and halibut landings, whether they occur in Federal waters or in State waters in the parallel fishery. This approach explicitly excludes vessels issued an FFP and fishing in the State managed groundfish fisheries from observer coverage requirements and associated fees under the restructured program. Note that NMFS does not have the authority to require observers on vessels that surrender their FFP and are fishing within State waters.

In sum, notwithstanding the FFP issues above, the scope of the restructuring alternatives includes commercial halibut vessels and vessels fishing groundfish, in the GOA and BSAI. Note that 'vessels' includes catcher vessels, catcher processors, motherships, and inshore floating processors. Shoreside processors are also included in each of the restructuring alternatives (see Assumption 5).

Assumption 2: If pursued, electronic monitoring should be addressed in a separate analysis

The 2006 reauthorization of the MSA included changes to Section 313(b)(2), allowing for fees collected under this section to be used for electronic monitoring (EM) systems. This language appears to anticipate the future potential of electronic monitoring technologies as part of a comprehensive monitoring plan in the North Pacific. The previous 2006 analysis on restructuring provided an appendix on fisheries monitoring technologies that could potentially be used in the North Pacific to augment observer programs, increase the accuracy of data collected by observers, and potentially replace some observers in particular applications. However, the restructuring analysis itself focused on changing the service delivery model, such that NMFS, as opposed to industry, would contract with observer providers. Thus, while the

⁴Observer Program Restructuring Discussion Paper, December 2008.

http://www.fakr.noaa.gov/npfmc/current_issues/observer/ObserverRest1208.pdf

⁵Ken Hansen, personal communication, May 19, 2009.

2006 analysis recognized the future potential of electronic monitoring, the actions proposed were specific to improving the existing Observer Program, understanding that observers are currently, and will likely remain, a central part of the overall monitoring system.

The discussion paper reviewed by the Council in December 2008 noted that staff anticipated that it will remain necessary to focus this observer restructuring analysis on alternatives to design a fee system and to determine the scope of restructuring (i.e., which fishery sectors will pay into a specific fee program). In contrast, an analysis to regulate electronic monitoring would provide a very different set of decision points regarding the specific applications by which electronic monitoring can be used in individual fisheries. The Council appeared to agree with this assessment at the outset, as alternatives for EM were not developed and included in the initial suite of alternatives for the restructuring analysis. Staff has thus proceeded with the assumption that if pursued, electronic monitoring should be addressed in a separate, subsequent analysis. Note however, that even if a new restructuring analysis focuses on changes to the existing Observer Program, a fee or fees established under the new system authorized by Section 313 could be used toward electronic monitoring systems, should that technology become available and be recommended by the Council and NMFS in the future. Thus, establishing the fee mechanism could be supportive and desirable for any future EM effort.⁶

Assumption 3: Two tier system for coverage levels

In the existing program, observer coverage requirements are generally based on vessel length overall, or whether the vessel participates in a type of Limited Access Privilege Program (LAPP) that necessitates individual vessel accounting of target species and/or bycatch. This system has generally resulted in regulated coverage categories of 0%, 30%, 100%, and 200%. Currently, owners and operators of vessels and plants with a 30% observer coverage requirement determine when and where to carry observers, to meet their mandatory coverage levels. These deliberate choices may result in biased information on the composition, and temporal and spatial distribution of catch. This has been identified as one of the primary reasons for restructuring the Observer Program – to allow NMFS to assign observers to vessels and plants in the current 30% fleets, using a scientifically-based vessel selection plan. Another reason, discussed previously, is to allow NMFS to assign observers in the current 0% fleets (e.g., the <60' groundfish sector and the halibut sector).

Similar to the previous restructuring analysis, a tier system is proposed for developing a new Observer Program sampling plan. Each type of vessel or sector would be categorized based on the amount of observer coverage it needs, in order to both develop an effective sampling plan and determine which fee system the sector will be subject to under the various alternatives. The previous 2006 restructuring analysis proposed a four-tier system by which to organize sectors into coverage categories. The current implementation plan proposes a simplified system, by which sectors are categorized as either 1) <100% observer coverage, or 2) ≥100% observer coverage. Vessel length would no longer be the basis for observer coverage in the North Pacific fisheries, and regulations requiring 30% coverage levels would be removed.

⁶Note that the Council, NMFS, and the North Pacific Research Board collaborated to host a public workshop on electronic monitoring, in Seattle, with a focus on video applications (July 2008). The workshop, which garnered national and international participation, attempted to assess the current state of the technology, its potential use for research and management in the North Pacific, and future research and development needs. In general, the workshop presentations demonstrated that electronic monitoring appears to work very well for making counts of individual fish in some fisheries (e.g., in the hook-and-line fisheries) and documenting activities (e.g., discarding or not discarding fish, using or not using bird avoidance devices), but most current EM programs have limited biological data collection components (e.g., species composition). Overall, the primary issues recurring throughout the workshop were categorized as administrative, practical, and related to data quality. Refer to the proceedings of the workshop for a detailed summary: http://www.fakr.noaa.gov/npfmc/misc_pub/EMproceedings.pdf.

Thus, all vessels that are categorized in the <100% observer coverage tier would be subject to one sampling plan with a specified vessel selection process, and vessels that are categorized in the ≥100% observer coverage tier would be subject to a different sampling plan, which recognizes that vessels must carry one or two observers on every trip. In addition, the results of two of the restructuring alternatives depend heavily on the tier determination. Under Alternative 3, the tier assignment also determines whether or not the vessel/sector is included in the restructured program or remains in the existing ‘pay-as-you-go’ program. Under Alternative 4, the tier determination also determines the type of fee assessed on the vessel (e.g., ex-vessel value based fee versus daily fee). NMFS’ proposal of which vessels or sectors fall under each tier is provided in Section 4.3.5. This determination is based primarily on NMFS’ inseason management needs, when required by program monitoring and enforcement needs (LAPPs) or when mandated, by Congress (e.g., AFA observer coverage for catcher processors). The rationale for the observer coverage tiers, as well as the overall monitoring objectives, is discussed in detail under the sample design and observer deployment section (Section 4.3). Note that part of the Council’s decision-making process under the observer restructuring analysis will be to confirm or revise the proposed tier system.

Assumption 4: Use only Section 313 fee authority to assess fees for observer deployment

In December 2008, the Council reviewed a discussion paper which included a section on the statutory authority for the Council to collect fees to pay for observer coverage. Changes to Section 313(a) and (b), under the reauthorization of the MSA (December 2006), allow the Council to establish a system, or systems, of fees, which may vary by fishery, management area, or observer coverage level, to pay for the cost of implementing the research plan. These fees can be expressed as a fixed amount reflecting actual observer costs or as a percentage of ex-vessel value (not to exceed 2 percent) of the fish and shellfish harvested under the jurisdiction of the Council (with the exception of salmon), including the Northern Pacific halibut fishery. Thus, the authority exists for all of the Council’s proposed restructuring alternatives; the MSA changes represent a broad authority to assess either a flat fee or an ex-vessel value based fee on a subset of, or all, fishery sectors under the jurisdiction of the Council.

Note also that Section 313(b)(2)(D) states that: “Any system of fees established under this section shall not be used to offset amounts authorized under other provisions of law.” Thus, in considering the authority to assess a fee for observer services under Section 313, staff consulted with NOAA GC to determine if there is any overlap with the Limited Access Privilege Program (LAPP) cost recovery fees authorized under Section 303A(e). The LAPP cost recovery fees require that the Council shall “provide, under Section 304(d)(2), for a program of fees paid by limited access privilege holders that will cover the costs of management, data collection and analysis, and enforcement activities.”⁷ While Section 313 explicitly states that the research plan fee should not *offset* any fees authorized under other law, the same section includes another provision that appears contradictory in specific cases.

Section 313(b)(2)(I) states that:

“Any system of fees established under this section shall provide that fees collected will be *credited against any fee* for stationing observers or electronic monitoring systems on board fishing vessels and United States fish processors and the actual cost of inputting collected data to which a fishing vessel or fish processor is subject under section 304(d) of this Act” *[emphasis added]*.

⁷NOAA GC agrees that observers fall under the definition of ‘data collection and analysis’ as stated in Sections 303A and 304 and, thus, LAPP cost recovery fees could be used to pay for observer coverage directly related to and in support of the LAPP.

Section 304(d)(2) provides the authority to collect fees to recover the actual costs directly related to management, data collection and analysis, and enforcement of any LAPP and CDQ Program. This section notes that the LAPP or CDQ fee cannot exceed 3 percent of the ex-vessel value of fish harvested under any such program, and further states that fees collected under the LAPP cost recovery program shall be *in addition to* other fees charged under the MSA. Thus, both Section 313 and Section 304 are relatively clear that the fees collected under the research plan authority in Section 313 are separate from, and should not be used to offset, any other fees authorized in the Act. However, there appears to be an exception for fees collected under Section 304(d) that are used explicitly for stationing observers or EM systems, and the actual cost of inputting collected data. Any fees collected under Section 313 must be credited against any fees collected under 304(d) for these specific purposes.

In sum, staff assumes the restructuring action would be limited to using the Section 313 fee authority to assess fees for observer deployment. Should a fishery or sector also be subject to a LAPP fee under Section 304(d) of the MSA under a separate action, fees collected under Section 313 would be credited against any 304(d) fee that is specific to stationing observers or electronic monitoring systems and/or the cost of inputting collected data. NMFS, in consultation with the Council, may consider using the 304(d) fee authority in lieu of the Section 313 fee authority to station observers on vessels participating in LAPPs should budget considerations indicate it would be prudent to do so. This approach would be implemented by regulation for a particular LAPP, under a separate analytical package. Upon request, NOAA GC has provided preliminary guidance to staff regarding the two different fee authority sources (i.e., research plan fee under 313 and LAPP fee under 303A). Refer to Section 4.1.1 for this guidance.

Assumption 5: Shoreside plants are included under the restructuring alternatives

In the previous 2006 restructuring analysis, the restructuring alternatives explicitly included both vessels and shoreside plants.⁸ Staff assumes that the intent of the Council's current suite of alternatives is to include shoreside processors in the restructured program. However, in December 2008, when the Council revised the alternatives, shoreside processors were not explicitly included. Although the 2006 alternatives were provided as a starting point for revising the suite of alternatives in 2008, there was no discussion or rationale provided regarding the exclusion of the shoreside processing sector. Staff assumes that the final language was a result of trying to simplify the wording of the alternatives, and not an explicit policy decision to exclude the shoreside processing sector. **Upon review of this implementation plan, the Council should confirm whether the shoreside processing sector is included in the action alternatives. If so, the Council could revise the wording of the alternatives as provided below (additions are in bold and underlined):**

- Alternative 1. Status quo; continue the current service delivery model.
- Alternative 2. GOA-based restructuring alternative. Restructure the program in the GOA and include all halibut fisheries in the GOA and BSAI. Vessels **and shoreside processors** in the restructured program would pay an ex-vessel value based fee. Retain current service delivery model for the BSAI.
- Alternative 3. Coverage-based restructuring alternative. Restructure the program for all fisheries with coverage of less than 100 percent. Vessels **and shoreside processors** in the restructured program would pay an ex-vessel value based fee. Leave vessels and processors with at least 100 percent coverage under the current service delivery model.

⁸ Note that 'vessels' includes catcher vessels, catcher processors, motherships, and inshore floating processors.

- Alternative 4. Comprehensive restructuring alternative with hybrid fee system. Restructure program for all groundfish and halibut fisheries off Alaska. Vessels **and shoreside processors** with 100 percent or greater coverage would pay a daily observer fee and vessels **and shoreside processors** with less than 100 percent coverage would pay an ex-vessel value based fee.
- Alternative 5. Comprehensive restructuring alternative that would assess the same ex-vessel value based fee on all vessels **and shoreside processors** in the groundfish and halibut fisheries in the GOA and BSAI.

In effect, the current assumption is that the fee amount would be paid in equal shares by both catcher vessels (CVs) and shoreside processors covered by the program; one-half of the fee collection would be paid by processors and the other half by catcher vessels, and the entire fee would be collected and remitted to NMFS by shoreside processors. This fee would pay for the cost of deploying observers on both catcher vessels and in shoreside plants. The Council should confirm whether this assumption is correct, or if a different policy direction is desired. Catcher processors (CPs), which both harvest and process groundfish or halibut, would pay both halves of the ex-vessel value fee. For example, if the fee amount was 2%, shoreside catcher vessels would pay 1% of their ex-vessel value, and the processor to whom they deliver would pay an identical 1% of ex-vessel value of the catch. Catcher processors would pay the entire 2% themselves.

Note that the sampling design and observer deployment section of the implementation plan (Section 4) focuses primarily on deploying observers on vessels. However, NMFS recognizes that analysis of how to select processors in which to station observers, under which tier shoreside processors are included, and any associated requirements for processors, need to be included in the restructuring analysis.

3 Funding considerations

3.1 Start-up Funding

NMFS would enter into direct contracts with observer providers to some extent under all of the proposed action alternatives approved by the Council. Start-up funds will need to be available to NMFS to move from a program structure where industry contracts with observer providers for observer coverage to one where NMFS contracts for observer coverage. NMFS cannot assign contractual task orders without having funds in-hand for the full amount of the task order (contracting is discussed in Section 4.2). Currently, there are no funds in the North Pacific Fishery Observer Fund (NPOF). Potential funding sources for the first year of a restructured program include direct federal funding, fee proceeds from all or a portion of groundfish fishery participants, or a combination of federal funding and industry fees.

Federal start up funding would be the ideal alternative to ensure a rapid transition to a restructured program in its first year. However, there are no discretionary federal dollars that have been identified for this project and the start up amounts could be substantial. Lacking federal start up money, NMFS will need to collect fees in addition to existing observer expenses in a given year, or years, in order to build enough money to issue contract task orders. This was the approach taken in the Research Plan in 1995, as explained below. If federal funding becomes available, it could seed the NPOF and cover year-1 program costs.⁹ If federal funds are not available to fund the first year of the program, NMFS and the Council would need to determine a fair method to collect observer fees from the industry in year-0. Another start-

⁹ Year-1 refers to the first year of a restructured observer program. Year-0 refers to the year prior to implementation of a restructured observer program in which the industry would continue to operate in the current “pay-as-you-go” program.

up funding scenario consists of a combination of federal and industry contributions in the event that federal funding is insufficient.

To date, start up federal funds have not been identified and there is no certainty that they would be available should the program be restructured. However, federal funding has always been discussed as an option for start up costs so the possibility of federal funding is considered in this implementation plan.

The 2006 restructuring analysis mentioned the possibility of a federal loan program to provide start-up funding for the NPOF and noted that this option would require Congressional authorization. Such a loan program was not included in the reauthorized MSA (December 2006).

Research Plan start-up fees

The initial Research Plan ex-vessel value fee percentage was 2%. Under the Research Plan, start-up funding was collected in year-0 (1995) of the program to fund year-1 (1996) of the program. The amount paid by various participants in year-0 was determined by their costs in the pay-as-you-go program. Operations paying costs for observer coverage equal to or greater than costs they would pay under the Research Plan were exempt from the year-0 fee assessment program. Participants in Research Plan fisheries not required to obtain observer coverage in year-0 paid their full portion of the 1995 fee percentage. Research plan fee assessments exceeded actual year-0 observer costs for many vessels, including processors required to have 100-percent observer coverage. These vessels were required to pay the difference between the fee assessment and their year-0 observer costs.

Timing implications

Full implementation of a restructured Observer Program will likely be delayed if NMFS is limited to relying on the industry for start-up funding in a similar fashion as in the 1995 Research Plan (e.g., federal funding is not available). Under this scenario, NMFS could delay implementation and collect fees over several years until the funding base is adequate for a full year's operations, or incrementally implement a restructured program (e.g., fund task orders for particular sectors as funds allow). Either choice would result in a delay of several years until enough money could be generated by industry fees. The time required to fund a fully restructured program could be reduced if federal funds can be combined with or substituted for industry-collected fee proceeds. However, no additional federal funds have been identified at this time.

4 Implementing a restructured Observer Program

4.1 Collecting fees from industry

4.1.1 Legal questions associated with fees

Under Section 313 of the MSA, the Council may prepare, in consultation with the Secretary of Commerce, a North Pacific Fisheries Research Plan (Plan) for all fisheries under the Council's jurisdiction except salmon. Any such plan would require observers to be stationed on fishing vessels and on fish processors, or shoreside processing facilities as appropriate, to collect data necessary for the conservation, management, and scientific understanding of any fisheries under the Council's jurisdiction, including halibut, but excluding salmon. It would also establish a system of fees to pay for the cost of implementing the plan, which may vary by fishery, management area, or observer coverage level.

Pursuant to the MSA, fees collected may be expressed as a fixed amount reflecting actual observer costs or a percentage, not to exceed 2 percent, of the unprocessed ex-vessel value of the fish harvested under the jurisdiction of the Council. Moreover, the total amount of fees collected cannot exceed the combined cost of (1) stationing observers, or electronic monitoring systems, on board fishing vessels and fish processors; (2) the actual cost of inputting collected data; and (3) assessments necessary for a risk-sharing pool, less any amount received for such purpose from another source or from an existing surplus in the North Pacific Fishery Observer Fund.¹⁰ Finally, the fees must be fair and equitable to all participants in the fisheries under the jurisdiction of the Council, including the Northern Pacific halibut fishery, and may not be used to pay any costs of administrative overhead or other costs not directly incurred in carrying out the plan.

This section addresses several questions about the extent to which the Council and NMFS can recover costs under the terms of the Plan authority in Section 313 of the MSA.

Limitations on the use of fee proceeds

Sections 313(b)(2)(C), (H), and (I) of the MSA, provide language directing how fee proceeds can be used, but are not explicit as to what plan implementation costs can be covered by fee proceeds. For example, Sec.(b)(2)(C) states: Any system of fees shall ...”provide that fees collected not be used to pay any costs of administrative overhead or other costs not directly incurred in carrying out the plan.” Although this does not allow for fees collected to be used to pay for administrative overhead, it is implicit that fee proceeds could then be used toward other agency costs associated with implementation.

Section 313(a)(2) states that the Plan implemented under the section may establish a system of fees “[t]o pay for the cost of implementing the plan”. Although this provision initially grants broad authority to collect costs associated with implementation, Section 313(b)(2) defines and appears to limit recoverable costs. According to Section 313(b)(2)(A), the total amount of fees cannot exceed the combined cost of “(i) stationing observers, ..., on board fishing vessels and fish processors, (ii) the actual cost of inputting collected data,...”. Further, under Section 313(b)(2)(C), fees may “not be used to pay any costs of administrative overhead or other costs not directly incurred in carrying out the plan”. The question is what costs are associated with “stationing observers” on board fishing vessels and at fish processors, and “inputting collected data”. The terms “stationing observers” and “inputting collected data” are undefined in the MSA. To add to the issue, there are no regulatory definitions and none were promulgated in the earlier Research Plan.

The legislative history for this section provides limited insight to the meaning of “stationing observers” and “inputting collected data”. According to the Senate Report, “[t]he level of fees would be determined by the cost of training and placing observers on-board vessels and in shorebased plants, as well as the cost of inputting collected data, but shall not include administrative overhead costs incurred by the Secretary.” (S. Report No. 414, 101st Cong., 2nd Sess. 1 (1990)). With some minor differences, the House Report states that “[t]he section also limits the level of fees which can be charged to amounts necessary to cover the direct costs of the research program. Finally, it is the intent of the Committee that any fees collected under a plan shall be used for the purpose of implementing that research plan. The fees are not to be considered another revenue raising measure by any branch of the government; they are established for a particular purpose and are to be used only for that purpose.” (H. Rep No. 393, 101st Cong., 1st Sess. 32 (1989)).

¹⁰The risk-sharing pool concept under (3) is not being considered at this time, as it appears the past insurance issues have been resolved either through the commercial market, or through the use of the MSA 403(c) language, which provides observers federal employee status for the purposes of compensation under the Federal Employees’ Compensation Act (FECA).

Read together, the House and Senate Reports reflect that Congress wanted fees to connect directly to the Research Plan's distinct, direct costs. Fearing that the agency might use the fee authority to reimburse itself for costs not directly associated with the Research Plan, Congress established barriers precluding the recovery of costs for program expenses that were shared with any other observer system operating in the North Pacific. To further ensure unassociated costs would not be recovered, NMFS is precluded from collecting fees for overhead, "administrative" expenses. Presumably, this is because these expenses flow from the Observer Program's responsibility for all program tasks, not just Plan operations. It is possible that, if implemented, the Plan may not be the only observer deployment operation administered by the Observer Program offices. In this instance, the shared overhead costs cannot be recovered.

NMFS, using its expertise and past experience in "stationing observers" and "inputting collected data", may develop a reasonable common sense standard describing what costs are captured by these terms. Although there is broad authority to collect fees for costs associated with the Plan, NMFS should establish a nexus between Plan costs and their relationship to placing or stationing observers aboard vessels and at processors. The remainder of this section describes the general categories of responsibilities and associated costs expected under a restructured program, and NMFS' proposed use of fee proceeds.

With the implementation of a restructured service delivery model for the Observer Program, in which the government enters into direct contracts with observer providers for observer services, responsibilities and associated costs would fall into three categories: (1) those that are currently covered by NMFS, (2) those that are currently under the purview of the observer providers, and (3) those that are new beyond the status quo.

Under the current program, NMFS is responsible for the sampling design employed by observers on fishing vessels and at shoreside processing plants. NMFS is also responsible for the training and certification of observers in these methods, supplying gear, debriefing observers, and the management of resulting information. Under a restructured program, NMFS would continue these responsibilities as they are essential data quality control steps. NMFS does not intend to shift substantive components of its current responsibilities to observer providers.

Currently, observer providers recruit, hire, deploy, insure, and provide salaries and benefits to observers. They also communicate with the fishing industry to coordinate with their scheduling needs and supply observers to meet federally mandated observer coverage. Under a direct contracting system between NMFS and the observer providers, it is likely that the current responsibilities of the observer providers would remain under the observer provider's purview. However, observer deployment would shift from a static regulatory-driven system to a dynamic science-based system. Under this proposed system, there may be logistical efficiency challenges that impact costs.

Under a restructured Observer Program, there would be additional responsibilities and costs that NMFS would incur beyond those of the status quo. Some of these responsibilities would fall to NMFS, but there would also be new responsibilities that may best be accomplished by the contracted observer providers. For example, NMFS or observer providers would need to implement a vessel selection sampling plan designed by NMFS. These responsibilities could include managing a call-in system with industry and making vessel selections following NMFS design criteria.

A shift from regulatory to science-based observer deployment would also impose new analytical burdens on NMFS. These include: (1) identification and designation of appropriate sampling strata to increase sampling efficiency, (2) designing sample-size requirements for attaining adequately precise estimates of catch for species for which there are allocated quotas, (3) anticipating total sampling effort for the upcoming year, based on expected funding, and (4) final allocation of 'target-days' (sampling effort) to strata, given the aforementioned calculations. Changes in fisheries or new information system

developments could require changes including database design, programming, application development and testing, etc. Ongoing information system development is part of the existing program, and it would continue to be an essential activity in the future.

Increases in agency resources required to implement a restructured program will be associated with fee collection and government contract award and oversight. Depending on the timing and magnitude of fee collection from industry to pay for observer coverage, additional staff may be needed to implement fee collection and budgeting. A Contracting Officer's Technical Representative (COTR) would also need to be designated to provide oversight and management of the government contract(s).

NMFS views all of the activities described above, including those that would be new beyond the status quo, as essential functions specific to the execution of a restructured program. In other words, these are the functions necessary to station observers on fishing vessels and input collected data. Some activities may be administrative by nature, but they are essential to program operations and NMFS would not be conducting them were it not for the Observer Program. Thus, NMFS views all activities noted above as falling under the fee authority in the MSA. However, NMFS would not use fee proceeds to fund other non-observer related NMFS activities or the cost of NMFS overhead. For example, NMFS would not consider Alaska Fisheries Science Center (AFSC) leadership salaries or travel to be within the scope of the fee. All funds collected would be used to pay for the direct costs of the Observer Program.

NMFS recognizes that the ongoing contribution of the federal government in supporting the existing program must continue. **NMFS does not intend to use fee proceeds to offset the current government contribution to the Observer Program because it recognizes that fee proceeds would best be used to procure and optimize the observer coverage needed in Alaska.** NMFS intends to continue to fund, and expand to the extent National resources are available, the agency contribution in support of the Observer Program.

Relationship between Section 313 and Section 304(d) fee authority

A second question is whether fees authorized under the Research Plan can be added in with fees authorized under other MSA provisions. In other words, can two pools of fees be added together to increase available funds to cover observer costs, or be used to improve and increase observer coverage? In addition to Section 313's fee collection mechanism, Section 304(d)(2) authorizes collection of fees for "data collection and analysis" costs connected to limited access privilege programs and community development quota (CDQ) programs. Although it has not yet issued explicit guidance, NMFS interprets "data collection and analysis" costs under Section 304(d)(2) as including, among other costs, observer coverage costs.

There is authority allowing two or more separate sources or pools of fees to be added together. Section 313(b)(2)(D) states that any system of fees established under this section "shall not be used to offset amounts authorized under other provisions of law." Although this provision authorizes adding fees together from different pools, there is also a separate, express limitation. The limitation is found in Section 313(b)(2)(I), which states that the Research Plan shall provide that fees collected will be *credited against* any observer fees imposed on a fishing vessel or processors under Section 304(d) of the MSA. Section 304(d)(2) provides authority to collect fees to recover the actual costs directly related to data collection for any LAPP or CDQ Program. Thus, Section 313 (Research Plan) fees can be added to fees recoverable from other authorities, but they cannot be added to and must be credited against fees recovered from LAPP or CDQ Programs where those fees were collected for costs associated with stationing observers or inputting data. If the data collection fees collected under Section 304(d)(2) are for costs that are not associated with "stationing observers" or "inputting data", then it is possible that the

Section 304(d) fees could be added to Research Plan fees and increase the available amount of fees for cost recovery.

Application of 2% ex-vessel value fee limit

One further issue is found in Section 313(b)(2)(E), which states that “any fee system shall be expressed as a fixed amount reflecting actual observer costs, or a percentage, not to exceed 2 percent, of the unprocessed ex-vessel value of the fish harvested under the jurisdiction of the Council.” The issue is whether the 2 percent cap applies to both the fixed amount fee and ex-vessel value based fee. This is significant in that one of the proposed restructuring alternatives (Alternative 4) would establish a daily observer fee on some industry sectors. Section 313(b)(2)(E) states that any system of fees shall “[b]e expressed as a fixed amount reflecting actual observer costs as described in subparagraph (A) or a percentage, not to exceed 2 percent, of the unprocessed ex-vessel value of the fish and shellfish harvested under the jurisdiction of the Council...”. The provision allows two methods to express or describe the fee: either as a dollar amount, or as a percentage of the value of unprocessed fish. In theory, a fixed or dollar amount could certainly be capped at a percentage of the ex-vessel value of fish; however, the grammatical structure of the sentence clearly links the 2 percent cap only to the percentage expression of fees, not the fixed or dollar amount. Thus, the 2 percent cap applies only to the ex-vessel value based fee, not the fixed amount reflecting actual observer costs.

4.1.2 Ex-vessel value based fee

All of the action alternatives approved by the Council in December 2008 contain a provision for establishing and collecting an ex-vessel value based fee for a portion or all of the groundfish and halibut industry. This section describes how NMFS would establish and collect an ex-vessel value based fee from federal groundfish and halibut fishery participants. In development of this implementation plan, NMFS evaluated methods for establishing and collecting fee revenues described in prior observer restructuring efforts, including the 1995 Research Plan (Research Plan) and the 2006 restructuring analysis, and existing cost recovery programs in the Alaska Region, including halibut/sablefish and crab IFQ (see Appendix 2).¹¹ NMFS considered the following aspects of ex-vessel fee derivation and collection in evaluating the various methods to arrive at the process described below:

- MSA requirements
- Harvest data availability and accuracy
- Price data availability and accuracy
- Timing of data availability in relation to program requirements
- Timing of availability of funds in relation to contract requirements
- Agency administrative requirements for establishing and collecting fees
- Industry administrative requirements for establishing and collecting fees
- Permit considerations which may impact or be impacted by fee collection methods

NMFS also considered the proposed principles of a fee program described in the 2006 analysis:

1. User fees should be broad-based in that all participants in the program pay a share.
2. User fees should be fair and equitable.
3. User fees should not be directly linked to actual coverage levels when coverage levels are less than 100%.

¹¹Appendix 2 provides a description of the fee derivation and collection methods used in the halibut/sablefish IFQ and the BSAI crab cost recovery programs.

4. User fees should be easy to collect without undue burden on industry.

Other principles carried over from prior restructuring analyses include:

- Fees should be assessed on any post-season price settlements or retroactive payments in addition to fee assessments at the time of landing.
- Fees should account for non-monetary exchange of fish or other forms of compensation.
- Fees should be assessed based on the weight equivalents used to debit quotas and prices should be expressed on the same weight equivalents (e.g. round weight for groundfish and headed and gutted net weight for halibut).

NMFS considered the advantages and disadvantages of using actual versus standardized prices as the basis for an ex-vessel value fee. Actual prices constitute the actual amount paid by a buyer for each species and landing, and in this case include non-monetary compensation. Standardized prices are determined by aggregating prices over all landings in specified species, gear, and area groupings to arrive at an average price per pound for each grouping.

Based on the methods-evaluation and review of the legislative history of MSA Section 313 which authorizes collection an ex-vessel value observer fee, **NMFS continues to propose using standardized prices, by species, gear, and area, as the basis for an ex-vessel value fee.** This preference is consistent with the approach taken in the Research Plan and re-affirmed in the 2006 analysis. More importantly, and as explained in the Senate Report accompanying the original 1990 legislation for Section 313, Congress recognized the difficulty of determining ex-vessel values in the absence of a documented commercial transaction between independent parties and expected that the Secretary of Commerce would develop a standardized value for harvested fish throughout the industry to implement the Section 313 ex-vessel value fee.¹² NMFS has long recognized that there would be no other option than to use standardized prices to determine ex-vessel prices for CPs for reasons explained below. The advantage of standardized prices over actual prices is further confirmed by their wide use in the halibut/sablefish IFQ and BSAI crab cost recovery programs which assess ex-vessel value based fees on participants.

Use of standardized prices was a major point of controversy in the development of the halibut/sablefish IFQ cost recovery program. NMFS ultimately developed a flexible system under which fishermen are given the choice to report actual prices or use NMFS standardized prices. The great majority of halibut/sablefish IFQ holders have elected to use NMFS standardized prices rather than actual prices each year, with 96% choosing to do so in 2008.¹³

The extent of accounting complexities associated with basing ex-vessel value fees for groundfish observers on actual prices make their use unfeasible from an agency standpoint. The Research Plan calculated standardized prices for 24 species or species groups in 6 different gear and area groupings. The sheer number of species and landings NMFS would have to track to verify actual price information for groundfish participants renders the use of actual prices impractical for establishing ex-vessel value fees. Additional concerns with actual prices are that they could encourage price reductions or under-reporting; and it would be difficult for NMFS to project revenues for funding observer coverage.

Establishing standardized prices

In keeping with the principles above, **NMFS would use the method employed by authors of the Economic SAFE to calculate standardized ex-vessel prices.** Standardized prices in the Economic

¹² See S. Rep. 414, 101st Cong., 2d Sess. 24 (1990).

¹³T. Zuniga, NMFS, personal communication, August 26, 2009.

SAFE represent the unfrozen landing price and are calculated by dividing the landed value by the estimated or actual round weight (Hiatt et al. 2008). For species well-represented by shoreside landings, the source for ‘landed value’ is the State of Alaska’s Commercial Operator’s Annual Report (COAR). COAR data are a more complete representation of price information than Alaska Department of Fish and Game (ADF&G) fish tickets, which do not reflect post-season adjustments or complete price information. Currently, prices are not required to be reported on fish tickets, though prices are frequently included. The 2006 restructuring analysis indicated that price information may have to be required on fish tickets through regulation, should the Observer Program be restructured. However, all processors are currently required to submit the COAR, and the Economic SAFE authors rely on COAR product price and quantity information to calculate standardized prices.¹⁴ NMFS anticipates using the COAR information to calculate standardized prices for observer ex-vessel value fees in the same manner. Other benefits of using the COAR data to calculate standardized prices are that the data are adjusted for post-season settlements and non-monetary transactions; and the need for additional industry reporting beyond what is already required is eliminated.

The disadvantage to using COAR data to establish prices is the time lag between when fish are landed and when data are available. This is discussed in greater detail below; however, a two year lag is anticipated before standardized prices from the COAR are able to be applied to landings for establishing ex-vessel fee liabilities.

NMFS would determine appropriate species, gear, and area groupings for calculating standardized prices. Research plan area groupings were BSAI, Western/Central GOA, and Eastern GOA; and gear groupings were trawl and other (fixed). The Research Plan provided A and B season prices for pollock and rex sole. The extent to which NMFS is able to specify standardized prices may be constrained by confidentiality standards. NMFS may have to aggregate on a broader level in some instances to protect confidential price information.

Should CPs be required to pay an ex-vessel value based fee, NMFS would calculate standard ex-vessel prices for CPs based on shoreside landings information, since CPs do not land un-processed fish. There are some species/gear type groups that are primarily processed at-sea, and thus, not well represented by shoreside landings (e.g., BSAI trawl-caught sablefish and flatfish, and trawl-caught Atka mackerel and rockfish in both the BSAI and GOA). NMFS would impute the ex-vessel value of these species/gear type groups according to the methods used in the Economic SAFE, which essentially discounts the first wholesale price by 40% to approximate unprocessed product value (Hiatt et al. 2008).

Setting the initial fee percentage

NMFS would establish the initial ex-vessel value percentage to be collected for observer fees based on recent fishery revenues and projected observer coverage levels, to a maximum extent of 2%. A subsequent analysis of the various alternatives under consideration will be informative as to the appropriate initial fee percentage required to attain requisite coverage levels. **The ex-vessel value-based fee percentage would be established and adjusted through proposed and final rulemaking.**

Note that the halibut/sablefish IFQ and crab cost recovery fee percentages are adjusted through an annual “rule-related notice” rather than proposed and final rulemaking. A closed framework has been established via proposed and final rulemaking for these fee programs. Annually, NMFS applies the established framework to arrive at the fee percentage required to recover costs for implementing these programs. NMFS and the Council do not have the discretion to establish an IFQ fee percentage different from that

¹⁴ Previously exempt CPs that operate exclusively in the EEZ and process only their own catch, have been required to complete the COAR since 2002 (2008 Economic SAFE).

generated by the formula which has been codified in regulations. The Council and NMFS could potentially use the IFQ cost-recovery program approach to provide annual adjustments to the observer fee percentage if the formula establishing the fee percentage is explicit. However, a closed framework formula for adjusting fee percentages would eliminate any possibility for the Council and NMFS to make discretionary changes to the fee percentage based on changing management needs. Using a closed framework formula for observer fees is further complicated by the fact that observer fees will be collected in advance of expenditures, to fund subsequent observer coverage contracts; whereas the cost recovery program fee proceeds are used to refund agency costs that have already been incurred. This timing disparity may preclude the ability of NMFS and the Council to establish a closed framework. Therefore, a formal regulatory amendment is assumed to be required for any change in the observer fee percentage.

Fee remittal process

In the Research Plan and the 2006 restructuring analysis the fee percentage was to be split between vessel owners and processor owners such that each entity paid one half of the total fee liability for each landing. For example, the Research Plan fee percentage established for the first year of the Research Plan was 2% of the ex-vessel value. Thus, the catcher vessel owner was liable for one percent of the ex-vessel value and the processor was liable for one percent of the ex-vessel value. Upon re-evaluation of the various methods for collecting ex-vessel value fees from vessel and plant operators, NMFS advocates a similar approach as the original Research Plan and 2006 analysis. **Specifically, the preferred method for shoreside landings would require processors to collect a vessel operator's fee liability at landing, and remit the fee to NMFS on an annual basis.** Assuming a 50:50 split in the fee liability between vessel operators and processors, processors would add their liability to that collected from the vessel operator and remit it to NMFS. Several benefits to having processors collect ex-vessel value observer fees include:

- A reduction in NMFS' administrative costs through a reduction in the number of entities submitting fee liabilities to NMFS.
- Eases budgeting and adds predictability for vessel operators by continually collecting fees as opposed to receiving an invoice for a year's worth of observer fees.
- Simplifies the tracking of the entity responsible for the fee liability of each landing (e.g., changes in vessel ownership).
- Fees could be based on settled eLandings¹⁵ fish ticket information.
- Fee liability computation could be automated through eLandings.

The shoreside fee remittal process is envisioned as follows:

1. Annually, NMFS would calculate standardized prices for each species, gear, and area based on the most recent COAR data and publish these prices in the Federal Register.
2. NMFS would program the standardized prices into eLandings at the beginning of each year.
3. Processors would enter the delivery condition code and the pounds of each species landed into eLandings (also referred to as the fish ticket).
4. eLandings would calculate the fee liability for each landing based on the weights entered by the processor and the pre-programmed product recovery rates (PRRs) and prices. PRRs would be used such that the fee is assessed on round weight of retained catch. eLandings can be programmed to display the respective liability for the vessel and the plant.
5. Processors would deduct the vessel's fee liability from their payment and add the processor's portion of the fee liability.

¹⁵eLandings is the internet data entry system or desktop client components of the Interagency Electronic Reporting System (IERS) for reporting commercial fishery landings and production from waters off Alaska.

6. Annually, NMFS would invoice processors for the fee liability determined by the sum of the fees reported by eLandings for each processor.
7. Processors would remit the fees to NMFS electronically or via check on a date to be established in regulation.
8. NMFS would audit the payments to ensure all liabilities are paid in full. **NMFS may withhold Federal Processing Permits (FPPs) for delinquent payments.**¹⁶

NMFS would employ a different approach for deriving and collecting ex-vessel fees from CPs. NMFS would use the methods described above to calculate standardized ex-vessel prices for CPs to account for the price added due to processing, by either applying shoreside prices where available or a constant 40% price deduction for species not well represented by shoreside landings per methods in the Economic SAFE. **In contrast to shoreside landings, NMFS would use observer reported values for total catch and species composition as the landed weight on which to assess an observer fee.** Thus, fees would be levied on total round weight, rather than retained weight. The rationale for the different approach for CVs delivering shoreside and CPs is the difference in data sources available to estimate total catch for CVs and CPs (as described in Section 4.3, CPs would have $\geq 100\%$ observer coverage under the proposed plan). In addition, it maintains consistency in the data source used to manage CP quotas since quotas are debited based on observer data and not the vessel's weekly production report (WPR).

Under the ex-vessel fee scenario, **NMFS would invoice CPs** in the fourth quarter of each year based on their landings from the fourth quarter of the preceding year and the first three-quarters of the current year and the relevant standardized price (by year and species).¹⁷ Catcher processors will remit their fee liabilities directly to NMFS. **NMFS may withhold FFPs if payments are delinquent.** Currently FFPs are valid for three years. However, recordkeeping and reporting regulations could be altered so they are issued on an annual basis. An annual permit cycle would facilitate fee collection enforcement. FFP applications would be considered incomplete until such time as observer fee liabilities are paid. CP owners that do not pay their fees would not receive their FFP and would not be able to harvest and process groundfish in the following fishing year.

Further considerations

Administrative Burden

The preferred method places the bookkeeping burden for shoreside fee liabilities on processors. Under the original Research Plan, processors collected ex-vessel fees from vessels and remitted the fees to NMFS on a bi-monthly basis. This was one point of controversy with the original Research Plan. In development of this current implementation plan, NMFS explored alternative methods than the one used in the Research Plan to collect ex-vessel value fees from industry. NMFS examined the fee remittal process for the halibut/sablefish IFQ cost recovery program for feasibility of collecting observer ex-vessel value fees. Under the halibut/sablefish IFQ program, NMFS invoices each quota holder at the end of the fishing year and quota holders remit their fees directly to NMFS. IFQ fee liabilities are determined by landings weights obtained from electronic fish tickets (eLandings); standardized prices established through a program-specific, registered-buyer's report; and the fee percentage established annually based on agency costs to administer the program. There are two primary distinctions between the cost recovery programs and the Observer Program which influenced the observer fee remittal process proposed by NMFS:

¹⁶Similar to the BSAI crab rationalization program and Amendment 80 program, NMFS would not consider an application for an FFP permit to be complete unless the applicant has satisfied other, connected obligations, such as filing a completed economic data report. Thus, NMFS may consider an application for an FFP incomplete if the applicant is delinquent in its fee payment.

¹⁷ This scenario is intended to be illustrative; the timeline stated here may shift depending on the timing of best available data.

1. There are different timing requirements as to when NMFS needs to receive fee revenues under the respective programs. The halibut/sablefish IFQ program collects fees at the end of a year to recover known costs the agency has already expended to implement the program; whereas, the observer fees will be used to fund contracts in the current or following year.
2. The halibut/sablefish IFQ program requires a separate registered buyer's report containing price information for IFQ species be submitted annually. This reporting requirement is in addition to the COAR. For the groundfish observer fee, an additional reporting requirement would virtually duplicate the COAR reporting requirement.

Price Volatility

With an ex-vessel value based fee system, NMFS' observer budget would be conditional on dynamic prices and harvest amounts. The only variables within NMFS' control would be the fee percentage level and observer coverage levels. In the event a certain fee percentage does not provide sufficient revenue for the level of observer coverage anticipated due to declining prices or harvest amounts, observer coverage may have to be reduced. In the next phase of the analysis on observer restructuring, analysts will examine the effect of using a rolling average of prices over several years to establish standardized ex-vessel prices. As discussed in the 2006 restructuring analysis, inter-annual fluctuations in ex-vessel revenue, which may affect the Observer Program budget, would be largely eliminated through the use of a 5-year rolling average of ex-vessel revenues. Analysts will explore the effect of standardizing prices based on rolling-averages over varying time frames.

While the approach discussed above would be intended to stabilize the observer deployment budget, NMFS must be cautious not to levy observer fees in excess of 2% of the ex-vessel value. With the approach proposed here, fee liabilities would be the product of prior years' prices and current years' volumes. Should this approach be adopted, NMFS should develop control rules to ensure that fee liabilities do not exceed 2% of the overall ex-vessel value in a specified time period.

Data Availability

The approach for collecting ex-vessel value-based fees described above was designed with the guiding principles in mind. In development of the preferred methods, NMFS found it impossible to optimize all desired elements simultaneously. For example, the choice of using standardized prices and requiring shoreside processors to collect and remit fees, precludes using current year prices. The use of current year prices would come at the expense of several critical aspects designed for efficiency and accuracy in the fee collection process.

As mentioned above, a two-year lag is anticipated before standardized prices from the COAR are able to be applied to landings for establishing ex-vessel fee liabilities. This is due to the time lapse required for operators to submit the COAR and for managers to verify the information and calculate standardized prices. It is possible the data could be available in less than two years; however, NMFS would publish the prices in the Federal Register such that they would become effective at the beginning of a calendar year. While the lag is sub-optimal, it allows NMFS to use the best available information without requiring additional industry reporting. Even with additional industry reporting, it is unlikely NMFS could compile and promulgate prices from the current year by the beginning of the following year. Thus, at a minimum, there would still be a one-year lag in prices even with additional industry reporting.

Halibut and Sablefish Prices

A discrepancy exists between the existing process for establishing standardized prices for halibut and sablefish and the proposed process for determining standardized pricing for all other groundfish, NMFS calculates standardized prices for halibut and sablefish based on IFQ registered buyer's reports submitted annually. Taking into consideration the differences in the best available information for halibut/sablefish

versus other groundfish species, NMFS will use the prices established at the end of the year as the standardized price for those species in the following year.

4.1.3 Daily Fee

One of the alternatives under consideration (Alternative 4) comprises a hybrid fee system where vessels with $\geq 100\%$ observer coverage requirements would pay a daily fee in lieu of an ex-vessel value fee, to which all other participants would be subject. This section describes the methods NMFS would use to establish and collect a daily fee. This approach would to some extent mirror the existing "pay-as-you-go" program, except that vessel owners would be billed by NMFS for their coverage instead of contracting directly with an observer provider. Under this approach, **NMFS would determine each vessel's fee liability based on the number of observer deployment days.** NMFS would calculate a standardized daily fee according to contractually agreed upon rates for deploying observers, which would be based on observer labor and non-labor deployment costs, such as transportation and lodging expenses. It is not possible to know actual costs of a daily fee without contracts in place, however, estimates would be provided in the restructuring analysis. Then NMFS would establish the standardized daily fee through proposed and final rulemaking. Note that a daily fee may be more amenable to a closed framework based fee formula than an ex-vessel value fee. In a closed framework, NMFS and the Council would establish a formula to derive the daily fee amount through proposed and final rulemaking. The daily fee could be updated as necessary and the public notified through a rule-related notice in the same manner as LAPP cost recovery programs (e.g. halibut/sablefish and crab IFQ).

NMFS' Fishery Management and Analysis Division (FMA) would submit a report to NMFS' Alaska Regional Office (AKRO) identifying each vessel required to pay daily observer fees and the number of days and observers that vessel carried during the billing cycle. This information is readily available and would likely require minimal additional programming by the FMA to generate this report. The AKRO would calculate each vessel's observer fee liability and invoice each vessel on a billing cycle established in regulation. The billing frequency would be determined in part by the amount of start-up funds available at the program's onset. If sufficient funds are available at the onset, NMFS would likely invoice vessels on an annual basis to reduce agency administrative costs. NMFS may withhold applicable operating permits (FFPs or FPPs) for delinquent payments (i.e., an incomplete application).

At this stage, NMFS has not identified a preferable method for generating start-up revenue in Year-0 from operations subject to a daily fee. Prior to implementation of a restructured program, vessels and processors would be paying directly for their daily observer coverage. In order for NMFS to collect daily fees in the same manner as ex-vessel value fees prior to implementing a restructured program, NMFS would have to determine the daily fee amount for deploying observers under a restructured program. If this amount is greater than the amount paid under pay-as-you-go, NMFS would collect the difference in the two amounts to generate start-up revenue. This assumes NMFS and the Council would adopt an approach similar to the Research Plan to collect ex-vessel value fees in Year-0, whereby operations paid the difference between their observer costs under pay-as-you-go and their eventual liability under a restructured program.

4.2 Contracting process with observer providers

Under all of the proposed restructuring alternatives, private observer provider companies (observer providers) would continue to be the source of observers deployed under the restructured Observer Program. NMFS intends to contract for observer work because observer providers have demonstrated high competence and efficiency in completing this work in Alaska and throughout the U.S. Detailed regulations and procedures already govern the federal contracting process. Therefore, this implementation

plan does not examine alternatives to the process that would govern direct federal contracting for observer services. Rather, the existing federal contracting process is described to provide the Council and the public with an understanding of how Observer Program contracts would operate under the restructuring alternatives. This section also explores the role of observer providers under a restructured Observer Program, and whether single or multiple contracts, and single or multiple observer providers, are preferable.

The contracting needs of NMFS are met by staff in NOAA's Western Acquisition Division (WAD) in Seattle. While WAD provides contracting assistance, the responsibility is shared with NMFS because it is incumbent upon NMFS to articulate what it needs in a contract, provide funds, and monitor technical progress. In addition, past experience has shown that a cooperative effort between NMFS, WAD, and the contractor results in a well managed contract. This cooperation fosters a "business partner" approach, creating effective working relationships and communications which help in developing a responsive and efficient Observer Program.

To implement a contract, NMFS must develop a performance work statement (PWS) which defines the type and scope of work to be accomplished. NMFS works with WAD to incorporate the PWS into a Request for Proposal (RFP) which is issued to the public. Interested vendors respond to the RFP with technical and cost proposals for the work described in the PWS. Proposals are evaluated and contracts are awarded to successful bidders.

Acronyms in this section include:

AGO - Acquisition and Grants Office (NOAA Headquarters Level)
AMD - Acquisition Management Division (Department of Commerce Level)
CO - Contracting Officer
CRB - Contract Review Board (NOAA – Western Regional Division Level)
DAO - Departmental Administrative Order
FBO - Federal Business Opportunities (FedBizOpps.gov - Website for Federal contracts)
IRB - Investment Review Board (Department of Commerce - reviews all actions over \$7 million or those actions of interest to the Department.)
OAM – Office of Acquisition Management (Dept. of Commerce)
PWS – performance work statement
RFP - Request for Proposal
SEB - Source Evaluation Board
SSO - Source Selection Official (Approval authority for the selection - for contracts over \$10 million the SSO is the NOAA Deputy Under Secretary or designee.)
WAD - Western Acquisition Division (NOAA)

NMFS recognizes that the five current observer providers are professionals in their field with a high degree of expertise in providing observers to the Alaskan groundfish fisheries. When NMFS issues its RFP, it expects responses will likely come from most, if not all, of the current observer providers working in Alaska as well as other observer providers that hold contracts with various NMFS observer programs around the country. The RFP that NMFS prepares would describe the work that is needed in a performance work statement with measurable outcomes, without dictating precisely how to accomplish that work. NMFS perspective is that stipulating specific aspects of the work constrains creativity and responsiveness on the observer provider's part to potentially develop unique approaches to certain problems or aspects of the work. NMFS would select observer providers that meet standards necessary to perform the work, provide acceptable cost proposals, and provide an appropriate mix of technical quality and cost effectiveness.

The number of observer providers and their role will be dependent to some degree on the scope of the restructured program chosen by the Council. Costs can be expected to increase with the number of observer providers that are awarded contracts because each of them has fixed costs, and the government has oversight and administrative costs associated with every contract.

4.2.1 Contract advantages & disadvantages

Managing an observer program through direct contracts between NMFS and observer providers offers advantages and disadvantages compared to the existing system, whereby vessels contract directly with observer providers to obtain a level of coverage as dictated through regulations. NMFS' perspective on the advantages and disadvantages of using a direct contract system is provided in the following two sections.

Contract advantages

Government contracting for observer services is the norm for other NMFS observer programs, including the existing Alaska Marine Mammal Observer Program. The federal contracting process is fair and objective, well defined, provides for competition, and has an existing support infrastructure. The following is a list of some of the advantages of direct government contracting:

- Professional contract management assistance and support from WAD.
- Contracting would replace most of the cumbersome regulatory processes used to manage observer providers under the current system. Observer providers under contract would be held accountable for their performance through the contract rather than through regulatory enforcement.
- The workload under any contract or task order would be clearly defined and as such, would improve and facilitate observer provider planning and efficiency.
- The work required of the observer provider could be quickly changed, if needed, through a contract modification or issuance of new task orders, rather than through the lengthy regulatory amendment process.
- Direct contracting funded through a fee system would eliminate the regulatory burden on industry to acquire its own observers. Vessels and processors would only be required to carry observers when they are provided by NMFS.
- Observer providers would be directly responsible to NMFS for data quality and the work performance of their observers. Observer providers would also be evaluated on how well they perform and comply with the observer deployment responsibilities set out in the contract.

Contract disadvantages

- The market share and profitability of the current certified observer providers would most likely be redistributed among those who are awarded contracts.
- Under Alternatives 2 and 3, NMFS would need to address complex issues detailed in Section 4.5 associated with implementing two different observer programs (one under a direct contract system and one under the status quo system of observer providers managed through regulation).
- The development and management of contracts would require additional staff resources.

4.2.2 Elements of the federal contracting process and timeframe

The essential elements of the federal contracting process are identified in Table 1. WAD staff prepared this table using a hypothetical contract worth over \$10 million annually, issued for one year with four option years. The table identifies the key steps and estimated timeline for each step. Tasks listed in **bold** are primarily the responsibility of the Observer Program. Tasks listed in normal font are primarily a WAD contracting responsibility. Underlined tasks are schedule impacts that are set by regulation. **Shaded** tasks represent legal review.

Note that this example is presented to give the Council an overview of the procurement process with a realistic timeframe for developing and awarding a contract. While this may serve as a planning guide, each contract is different, and the timeframe will be influenced by the dollar amount and overall complexity of the contract.

Table 1 Example timeframe for developing and awarding a contract

Step No.	Task Name	Duration (number of calendar days)	Example Earliest Start Date	Example Earliest Finish Date	Example Latest Start Date	Example Latest Finish Date
1	Market Research	15 - 30 days	1/2/11	1/16/11	1/2/11	2/1/11
2	CD-570 Process (small business)	7 days	1/17/11	1/23/11	2/2/11	2/8/11
3	Develop Work Statement & Section M and Formal Acquisition Plan	60 - 75 days	1/24/11	3/24/11	2/9/11	4/24/11
4	Finalize Work Statement, Section B and Section M	15 days	3/25/11	4/8/11	4/25/11	5/10/11
5	<u>Legal Review</u>	7 days	4/9/11	4/15/11	5/11/11	5/17/11
6	CRB Review (WAD)	7 days	4/16/11	4/22/11	5/18/11	5/24/11
7	AGO Review (NOAA Head Quarters)	7 - 14 days	4/23/11	4/29/11	5/25/11	6/7/11
8	IRB review & OAM approval (Dept. of Commerce)	21 - 90 days	4/30/11	5/20/11	6/8/11	9/5/11
9	Develop Source Selection Plan	5 days	5/21/11	5/25/11	9/6/11	9/11/11
10	Approvals CO/Legal/SSO	15 - 21days	5/26/11	6/9/11	9/12/11	10/3/11
11	Complete Acquisition Package	47 days	6/10/11	7/26/11	10/4/11	11/20/11
12	Obtain Funding Documents	3 days	7/27/11	7/29/11	11/21/11	11/23/11
13	Obtain DAO 208-10 Approval for Services	3 days	7/30/11	8/1/11	11/24/11	11/26/11
14	Submit Acquisition Package to AMD	1 day	8/2/11	8/2/11	11/27/11	11/27/11
15	Review Acquisition Package	6 day	8/3/11	8/9/11	11/28/11	12/4/11

16	<u>Prepare & Issue FBO Synopsis</u>	16 days	8/10/11	8/25/11	12/5/11	12/20/11
17	Obtain Wage Rates	20 days	8/26/11	9/14/11	12/21/11	1/9/12
18	Prepare Option Justification	1 day	9/15/11	9/15/11	1/10/12	1/10/12
19	Prepare Solicitation (RFP)	5 days	9/16/11	9/20/11	1/11/12	1/15/12
20	Client Review of RFP	5 days	9/21/11	9/25/11	1/16/12	1/20/12
21	<u>Pre-Solicitation Legal Review</u>	11 days	9/26/11	10/6/11	1/21/12	1/31/12
22	RFP to Review Board	3 days	10/7/11	10/9/11	2/1/12	2/3/12
23	Revise RFP Based on Reviews	1 day	10/10/11	10/10/11	2/4/12	2/4/12
24	RFP to AGO for review	7 - 14 days	10/11/11	10/17/11	2/5/12	2/18/12
25	Issue RFP	1 day	10/18/11	10/18/11	2/19/12	2/19/12
26	Pre-Proposal Conference	1 day	10/19/11	10/19/11	2/20/12	2/20/12
27	Respond to Bidder's Questions	2 days	10/20/11	10/21/11	2/21/12	2/22/12
28	<u>Receive Proposals</u>	32 days	10/22/11	11/22/11	2/23/12	3/26/12
29	SEB Technical Review	11 days	11/23/11	12/3/11	3/27/12	4/6/12
30	Cost/Price Analysis	5 days	12/4/11	12/9/11	4/7/12	4/11/12
31	SEB Memo to CO	2 days	12/10/11	12/11/11	4/12/12	4/13/12
32	Determine Competitive Range	1 day	12/12/11	12/12/11	4/14/12	4/14/12
33	Brief SSO	1 day	12/13/11	12/13/11	4/15/12	4/15/12
34	Notify Excluded Firms	1 day	12/14/11	12/14/11	4/16/12	4/16/12
35	Pre-Award Debriefing	1 day	12/15/11	12/15/11	4/17/12	4/17/12
36	Prepare Pre-Negotiation Objectives	3 days	12/16/11	12/18/11	4/18/12	4/20/12
37	Pre-Negotiation Review Board	3 days	12/19/11	12/21/11	4/21/12	4/23/12
38	Negotiations	10 days	12/22/11	12/31/11	4/24/12	5/4/12
39	Request Revised Proposals	1 day	1/2/12	1/2/12	5/5/12	5/5/12
40	<u>Receive Revised Proposals</u>	14 days	1/3/12	1/16/12	5/6/12	5/19/12
41	SEB Review	2 days	1/17/12	1/18/12	5/20/12	5/21/12
42	SEB Award Recommendation	2 days	1/19/12	1/20/12	5/22/12	5/23/12
43	Negotiation Summary	2 days	1/21/12	1/22/12	5/24/12	5/25/12
44	Brief SSO	3 days	1/23/12	1/25/12	5/26/12	5/28/12
45	Responsibility Determination	1 day	1/26/12	1/26/12	5/29/12	5/29/12
46	Price	1 day	1/27/12	1/27/12	5/30/12	5/30/12

	Reasonableness Determination					
47	Prepare Contract	3 days	1/28/12	1/30/12	5/31/12	6/2/12
48	Submit Award to Legal	1 day	1/31/12	1/31/12	6/3/12	6/3/12
49	Legal Review of Award	11 days	2/1/12	2/11/12	6/4/12	6/14/12
50	CRB Review of Award	7 days	2/12/12	2/19/12	6/15/12	6/21/12
51	AGO Review of Award	14 days	2/20/12	3/5/12	6/22/12	7/5/12
52	Award Notification	1 day	3/6/12	3/6/12	7/6/12	7/6/12
53	Unsuccessful Bidder Letters	1 day	3/7/12	3/7/12	7/7/12	7/7/12
54	FBO Award Synopsis	1 day	3/8/12	3/8/12	7/8/12	7/8/12
55	Incorporate Legal Comments	1 day	3/9/12	3/9/12	7/9/12	7/9/12
56	Award Contracts	1 day	3/10/12	3/10/12	7/10/12	7/10/12
57	Debrief Unsuccessful Bidders	5 days	3/11/12	3/15/12	7/11/12	7/15/12

Total:

Duration (number of calendar days)	Example Start Date	Example Earliest Finish Date	Example Latest Finish Date
438 – 560 days	01/02/2011	03/15/2012	07/15/2012

4.2.3 Indefinite-Delivery, Indefinite-Quantity Contracts

Developing contracts would be done through a consultative process with WAD to ensure the best service while providing for competitive pricing. There are a number of contracting options available and NMFS, in consultation with WAD, has identified a type of federal contract that appears most appropriate for a restructured Observer Program. This type of contract is referred to as an indefinite-delivery, indefinite-quantity (IDIQ) contract under Federal Acquisition Regulations (Subpart 16.5). An IDIQ contract is a contract framework that identifies a body of work that can be awarded to multiple vendors. Actual work under an IDIQ contract is done in response to specific task orders issued by NMFS for components of work. The task orders can be awarded to any of the vendors who are under the IDIQ contract. An IDIQ contract has the advantage of increased flexibility and there are no requirements for start-up funding to initiate the IDIQ contract. However, issuing task orders under an IDIQ framework would require upfront funding to cover each specific task order. IDIQ contracts permit flexibility in both quantities and delivery scheduling and in ordering supplies or services after requirements materialize. This flexibility may prove advantageous since the details of observer coverage and funding may not be fully known when the newly restructured Observer Program is implemented. In addition, IDIQ contracting requires that preference be given to awarding multiple contracts under a single solicitation for the same or similar services. This allows NMFS to benefit from the cumulative expertise of more than one observer provider.

The following is a list of IDIQ contract attributes:

- According to federal acquisition guidelines, if contract awards are multiple, the IDIQ contract is a better option compared to a system of separate contracts because of the flexibility of the contracting model.

- The only upfront money required is the minimum amount identified for each contract awarded. NMFS also needs to state the minimum and maximum amount per year for each vendor (observer provider) for the duration of the contract. However, IDIQ will require task orders to be fully funded at the time of task order award. Task orders (work assignments) are developed as necessary. Tasks are aligned commensurate with available funding and can be ordered as needs arise.
- Under an IDIQ contract, a minimum of two successfully bidding observer provider companies will be awarded contracts. However, any number of bidding companies can be selected. There is no limit.
- Individual observer companies that are awarded an IDIQ contract with other observer companies are not *required* to compete for individual task orders. However, as stated above, each observer provider awarded an IDIQ contract is guaranteed a minimum amount of work. The contract must state the minimum amount to be provided to each vendor under the total term of the contract. This amount will have to be paid whether or not the vendor is assigned any work. However, the government's risk is minimized since the minimum guaranteed amount is the government's only obligation to purchase under the contract.
- The federal acquisition regulations state that if the government knows there are two or more responsible small businesses that can perform the work, the government is required to set aside the IDIQ contracts to small businesses. Most existing observer providers are small businesses. Therefore, observer contract awards will most likely go to small businesses. The distinction between a small and large business depends on the North American Industry Classification Code (NAICS) cited in the solicitation. NAICS codes state the size of the business in either the maximum number of employees working for the company or in maximum amount of dollars earned.
- The contract award process would not consist of bidding on detailed work descriptions or task orders. Observer providers would either bid on more general categories in the offer schedule, such as observer coverage days, transportation, etc., or they may be requested to bid on general modules of work (i.e. combinations of vessel types, gear types, fisheries, areas fished, etc.). After the contract is awarded, defined task orders would be created within the modules and assigned to the observer provider companies that were awarded the contract.
- NMFS would develop an "Acquisition Plan" before developing the solicitation. Each contract is different and the timeframe will be influenced by the monetary value and overall complexity of the contract. However, at a minimum, it is expected to take about 240 days to write and award a contract valued from \$100 thousand to \$10 million and it would probably take at least 438 days for a contract valued over \$10 million. An acquisition plan would be needed regardless of whether an IDIQ contract is chosen, because of the size and complexity of contracting for observer services.

4.3 Sample design and observer deployment on vessels

4.3.1 Background

Effective fisheries management requires that the quantity of catch be known. This information can be garnered from industry in the form of landings (fish tickets) or at-sea production reports. Quantity of retained catch represents the most basic form of catch information. Because fisheries are not 100% efficient, industry reported data may not include information on at-sea discards or interactions with species of special concern such as marine mammals or seabirds. Deduction of non-marketable catch or prohibited species catch from individual catch quotas introduces economic incentive to misreport such information. When reported values systematically differ from true values, bias may result.

The Observer Program was established in 1990 to address the need for unbiased data on catch and biological interactions from the North Pacific groundfish fishery. The program was set up as an industry-funded "pay-as-you-go" system. Consequently, rules specifying the coverage requirements (i.e., proportion of days required to be observed) were initially set according to vessel length overall according to what was considered "fair" by industry and government representatives at the time. Based on these initial rules, vessels less than 60' LOA were not required to be observed when fishing, vessels 60' – 125' LOA were required to have observers onboard for 30% of their fishing days and one-full trip per fishery (defined by target species), and vessels >125' LOA were required to have observers onboard for 100% of their fishing days.¹⁸ Likewise, processing facilities processing 500 mt - 1,000 mt per quarter are required to be observed for 30% of their days, and facilities processing over 1,000 mt are required to be observed for 100% of their days.

The way the system is designed, for vessels and processors required to have 30% observer coverage, industry decides which fishing or processing days are to be observed to meet mandated coverage requirements. Since there is a cost associated with each day observed, vessels with low profit margins may be tempted to reduce coverage costs through non-representative fishing. Two of the most common sources of bias that can be introduced into catch estimates are fishing in non-representative areas, and fishing at non-representative times.¹⁹ Both of these types of bias appear driven by economic incentives, as non-representative trips are commonly taken close to shore (reducing time and fuel costs) and gear is hauled immediately before and after midnight (achieving two days coverage for less than 24 hours effort).²⁰ In addition, the current length-based system for categorizing vessels for coverage rates imposes an economic incentive to alter original vessel size, especially if near 60' or 125' LOA, since observer coverage rates (and incurred vessel cost) will change by 70% from 125' to 124' and by 100% from 60' to 59'. Since the inception of the Observer Program, management needs have amended the original rules regarding observer coverage, resulting in a complicated set of conditions for compliance (Appendix 1). Nonetheless, the core structure of a 0%, 30%, and 100% fleet, and industry control of observer deployment in the 30% fleet, has remained in place.

Over nearly two decades, the Observer Program has grown into one of the largest in the world – in 2008, aggregate observer days exceeded 39,000¹. The Fisheries Monitoring and Analysis Division (FMA) of the Alaska Fishery Science Center is responsible for oversight of the Observer Program and conducts the

¹⁸Throughout this implementation plan, staff commonly refers to fleets that are required to have these at-sea coverage levels as the 'less than 60 fleet,' 'the 30% fleet,' and 'the 100% fleet.'

¹⁹NPFMC, (North Pacific Fishery Management Council). 2008. Public review draft: Regulatory impact review / initial regulatory flexibility analysis for a regulatory amendment to revise administrative and procedural aspects of the North Pacific Groundfish Observer Program. Accessed 07/13/2009 and available at http://alaskafisheries.noaa.gov/npfmc/current_issues/observer/Observer408.pdf

²⁰ The definition of observer day is scheduled to change to prohibit this latter practice.

training and debriefing of observers and the maintenance of an observer database. The primary objective of FMA is to provide accurate and precise data on catch and bycatch, and biological information for conservation and management of groundfish resources and the protection of marine mammals, seabirds, and protected species. Towards this end, the Observer Program currently uses a hierarchical sampling design whereby fishing events (hauls or sets) are sampled within trips that take place within vessels.

Catch estimation and monitoring of quotas is the responsibility of the NMFS, Alaska Region Office (AKRO). Alaskan fisheries have been touted as among the best managed in the world (Worm et al. 2009), and a complex suite of rules to control fishing have been enacted by the Council and NMFS that include: limited entry, trip limits, quota sharing systems (including community development, cooperative, and individual quotas), and catch limits. NMFS' catch accounting system (CAS) estimates total removals within each fishery (defined by target species, area, gear, management program, and time) whereby retained catch is added to discarded catch. Catch sampling and estimation of total catch by the CAS has recently been documented by Cahalan et al. (in review). Briefly, the CAS uses observer-derived data in conjunction with industry-derived data. For catcher processors and motherships, the data source used to estimate retained catch is dependent on reporting requirements and observer coverage rates specified by federal regulations that vary greatly by vessel type (50 CFR 679.50). Landing reports (fish tickets or production reports) are required from all processors that are required to have a Federal Processing Permit and which receive groundfish from catcher vessels that are issued a Federal Fisheries Permit. Processors may be at-sea (motherships), floating, or shoreside types.

The collection period for a landing report is a trip (defined as the period from when fishing begins to the time of delivery) for CVs delivering to floating and shoreside processors, and a day for each catcher vessel that delivers to a mothership. In contrast to landings reports derived from CVs, catcher processors and motherships must submit at-sea production reports if issued a Federal Fisheries Permit. Production reports are required daily for both shoreside processors and the at-sea fleet. Information about non-retained species that were caught or otherwise impacted by fishing operations from industry landings and production reports are unverifiable or absent altogether. In general, the CAS estimates retained catch from observer data collected on CPs and motherships with $\geq 100\%$ observer coverage (in cases where the observer has access to flow scales) and uses landing and production reports of retained catch on CVs delivering shoreside or CPs and motherships with less than 100% observer coverage. The CAS uses at-sea discard rates estimated from observer data obtained from observed vessels that are fishing with similar gear, areas and/or times, and applies this rate to industry landing reports to estimate at-sea discards. At-sea discards from vessels with 100% or greater observer coverage are estimated from observer data. Total catch used for quota management is then the sum of retained and discarded catch (Cahalan et al. 2009).

The current CAS and observer coverage requirements place economic incentives on vessels to introduce bias into observer-derived data through non-representative fishing. Given the use of observer data in the CAS, and the subsequent use of CAS data in stock assessments, this issue has ramifications in that it can undermine the validity of data used to manage North Pacific groundfish fisheries. This section serves to provide the rationale and means to reduce the bias introduced by industry control over observer coverage for fishing operations with less than 100% observer coverage requirements, should the Council recommend restructuring the Observer Program such that NMFS gains control over the deployment of observers in the North Pacific groundfish and halibut fisheries.

4.3.2 Sampling theory and terms of reference

The ensuing discussion on sampling design requires clear definition of some widely used (and sometimes misused) statistical terms. A *population* is the entire group that one wishes to make inferences about. The

target metric is the parameter or quantity of interest for the population (e.g., weight of fish, numbers of crab). Following the objective of the Observer Program, the population is the total direct (catch) and indirect (interaction) mortality of groundfish, including non-desirable species of groundfish, birds, and marine mammals that occur as a result of fishing operations. Information about a population may be gathered through a complete accounting of all items within the population (i.e., a census) or by gathering information on a smaller component of the population (i.e., a sample). However, currently the Observer Program cannot directly quantify indirect mortality caused by fishing activities underwater. Therefore the *target population* (the population of interest) may not be identical to the *sample population* (the population available to be quantified). For the Observer Program, the sample population consists of catch and indirect mortality that is available to an observer. When the sample population is divided into equal measurable units, the units themselves are termed *sample units*, whereas the list of sample units is the *sample frame*. Each element of the sample population must be in one and only one sample unit, and the total of all sample units comprises the sample population. When sample units are selected according to some predetermined manner, we have a *sample*.

Sampling offers advantages over a census approach in that it is more cost-effective, faster, has greater utility, and can be more accurate if applied in conjunction with sampling theory (Cochran 1977). In addition, the likelihood of data being lost due to improper methods by the observer are reduced in sampling over a census approach, since in the former case an additional sample using proper methods may be attained from the sample frame, whereas in the latter all gathered data are rendered biased. Because samples are used to make inferences about the population of interest, the way in which samples are collected (i.e., the *sample design*) has direct bearing on the analytic methods used to estimate population parameters.

The extrapolation from the sample to the population can be considered valid only if the unsampled values can be considered similar to the sampled values, i.e., only if the sample is representative of the whole population. This representativeness is guaranteed by the selection of sample units according to a randomization scheme, otherwise known as *random sampling* (e.g., Fisher 1925; Thompson 2002). Because every item in the sample frame has an equal (and known) probability of being included in the sample, the use of random sampling protects against subjectivity or bias in sample selection by the observer. Two commonly used sample designs are *simple random sampling* (SRS) and *systematic random sampling* (SYS). In SRS, units are selected from the sampling frame at random (using a random number table or other randomization mechanism) for inclusion in the sample. In contrast, in SYS a random start point is chosen and subsequently every n^{th} sample unit is selected for inclusion in the sample. SRS is useful when no spatial or temporal trends are present in the contents of the sample population. SYS works well in sample frames when the size of the sample population is not known *a priori*, and offers the advantage over SRS in that it ensures samples will be taken throughout the sample population, thereby addressing potential trend or stratifications. Sample frames may be subdivided into *strata* with similar characteristics. Sampling efficiency is increased when between-strata variance is maximized and within-strata variance is minimized. Variation among sample units can be used to examine sampling effectiveness (by generating measures of *dispersion* or *variance* such as confidence intervals, standard errors, coefficients of variation, etc.; the opposite of dispersion is *precision*). Since it is desirable to obtain estimates of target metrics that are unbiased and precise, a final advantage of random sampling is that the variance of the estimate will decrease with increasing sample size in a predictable manner. In this way, sample size analysis can be used to assess the degree of precision expected for a given sample size (and hence for a given cost).

4.3.3 Observer Program sampling design

The groundfish Observer Program incorporates a hierarchical sampling design whereby catch is sampled at multiple levels. The sampling of the population of fishing trips represents the highest level within the design, while the population of fish caught (catch) is represented at lower subsequent levels (Table 2). Unlike the sampling of fishing trips associated with the first level of the design, the sampling of catch is under the direct control of NMFS. Consequently, randomization procedures for the selection of samples by observers once onboard vessels or processors have been in place since 1996, and these procedures are extensively documented in annual observer manuals.²¹ Since sampling methods used by observers to sample the catch of individual fishing events are not anticipated to change with restructuring, the remainder of this document will focus on the Observer Program design at the highest level, i.e., observer deployment.

Table 2 Description of current Observer Program sampling design from Cahalan et al. (in review)

Sample Level	Sample Frame	Sample Unit	Sample Selection	Data / Observation
1° Unit: Trips	Set of all trips within a fishery and quarter	Fishing trips (deliveries)	100% or non-random	Departure and delivery ports, trip dates, etc
2° Unit: Hauls	Set of all hauls on trip	Fishing event (haul, longline set)	Constrained Simple Random Sample (SRS) of set of all hauls	Effort data (total catch size, gear deployed, fishing location, etc)
3° Unit: Sample	Set of all sample units in the haul	Predefined weight, volume, or gear segment	Systematic Random Sample (SYS) / SRS / opportunistic from haul	Species composition data
4° Unit: Length Sample	All fish (by species) within a sample	Individual Fish	SRS from 3° sample	Sex, length, and weight
5° Unit: Otolith Sample	All fish (by species) from length (SLW) sample	Individual Fish	SRS from 4° sampled fish	Otoliths

4.3.4 Past reviews of observer deployment

Observer protocols, including observer deployment, have been continuously scrutinized since the inception of the Observer Program (Table 3). Nelson and Kappenman (1992) were the first to investigate the sampling effectiveness of observer deployment, and focused their investigation on estimates of halibut catch from vessels required to have 100% observer coverage during 1991. The authors used the full data set in a computer program to simulate halibut catch estimates that may have originated from coverage rates at less than 100%. These authors were interested in the level of observer coverage in the fleet required to obtain halibut catch estimates that were less than 10% different from the original (100% coverage) estimates in 90% of the simulations. From their criteria, the authors recommended a level of 100% observer coverage for all vessels. The simulation approach of Nelson and Kappenman (1992) was repeated for a variety of target metrics (bycatch and target species) within different fisheries and gear types by Dorn (1992) and Dorn et al. (1997b). However, these later authors did not specify their desired level of precision in catch estimates. As a consequence, no recommendations could be drawn from the

²¹ Available at <http://www.afsc.noaa.gov/FMA/document.htm>.

analyses. Instead, their work demonstrated the intuitive result that variance of the estimates was reduced with greater observer coverage, and that the nature of these results were species and gear dependent. MRAG (2000) performed the first outside review of the Observer Program. Their review formally recommended that the Council establish coverage requirements for the less than 60' fleet, and that NMFS control observer deployment to correct for the inherent possibility of bias within the 30% fleet. Several years later, representatives from observer programs around the U.S. gathered to discuss observer coverage level issues and needs (NMFS 2004a). This group reported that although an often-cited goal of observer programs is to achieve a predetermined level of coverage, this is actually a poor program goal. Rather than determining coverage rates through negotiations between fishery managers and industry (as in the case of the Observer Program), this group concluded that it would be better to structure a program so that uncertainty in estimates (e.g., variance) can be quantified. NMFS (2004a) concluded that "...unless this is achieved, observer programs will continue to be shaped by reaction to events rather than by design."

Table 3 Past external and internal works (in chronological order) that address Observer Program sampling procedures prior to Cahalan et al. (in review)

Study	Type	Key topic	Sampling unit					
			1	2	3	4	5	
Nelson and Kappenman (1992)	I	Vessel coverage levels (Halibut)	X					
Dorn (1992)	I	Vessel coverage levels	X	X				
Dorn et al. (1995)	T	Observer haul weight			X			
Dorn et al. (1997a)	T	Observer haul weight			X			
Dorn et al. (1997b)	I	Observer coverage	X	X				
Turncock and Karp (1997)	I	Salmon bycatch		X	X			
Dorn et al. (1999)	P	Weight comparisons		X	X			
MRAG (2000)	E	Observer program review	X					
MRAG (2002)	E	Haul specific catch estimation			X			
MRAG (2003)	E	Biological sampling protocols					X	X
Barbeaux et al. (2005)	P	Biological sampling					X	X
Volstad et al. (2006)	E	Observer Program procedures review		X	X	X	X	X
Miller et al. (2007)	P	Optimal sampling	X					
Pella and Geiger (2009)	E	Salmon bycatch (genetic samples)						X

Note: Type denotes whether the manuscript is an internal memorandum (I), internal technical report (T), report by external entity (E), or published journal article (P). X denotes the sampling unit addressed by each study where sampling unit follows Table 2.

The importance in designing an observer sampling program, so that uncertainty can be adequately characterized, is illustrated by subsequent attempts to develop new ways to estimate catch from Observer Program data. The complex models derived by Tim Miller have been published in several documents (Miller and Skalski 2006a; Miller and Skalski 2006b; Miller et al. 2007). These models were used to properly account for uncertainty in the point estimates derived from Observer Program data. There have been several misunderstandings as to the applicability of these models to Observer Program data that need to be addressed. First, Miller (2005) advocated design-based estimates of catch, and some of the data constraints that necessitated his modeling of catch are no longer present. Second, a code within the Observer Program database was incorrectly handled by one of Miller's models, causing differences in salmon bycatch estimates from official NMFS records (as mentioned in Pella and Geiger 2009). Third, because of the complicated nature of observer deployment that remains today, the models of Miller necessarily assumed that Observer Program data in the 30% fleet were derived from a random sample of 30% of trips.

4.3.5 Proposed observer deployment

The aforementioned history highlights two important elements that provide the foundation of a new observer deployment design. The first element of the sampling design is unbiased estimation at the fishery

level. For unbiased estimates of catch to be obtained, either 100% observer coverage of all trips needs to be achieved or a random sample of fishing effort is necessary. The second element is variance. By analyzing the variances at each sampling level of a hierarchical design, the sampling effort necessary to achieve desired levels of precision can be determined. These two elements provide the structure around which observer deployment can be properly designed. The same observer deployment design will be presented in Alternatives 2 - 5 before the Council, and requires that the sampling unit and sampling strata be well defined (NMFS 2004b).

Sampling unit

Two potentially viable primary sample units for observer deployment (effort) are the: (1) vessel for a predetermined time period, and (2) the fishing trip. In both cases bias introduced by non-representative fishing (*i.e.*, the observer effect) is possible. Therefore, attempts should be made to reduce these potential negative effects in the design. A list of participating vessels is not stable from year to year, and vessels are not restricted to port, fishery, or gear type, making it difficult to develop a sampling frame. In addition, the ability of some vessels to fish as part of catch share programs with tradable quotas introduces the ability for a vessel, if selected to carry an observer, not to fish and still generate income. Generating a sampling frame from trips offers the advantage that regardless of target fishery or vessel identification, observer deployment will follow fishing effort of the fleet. For example, if most trips originate in Dutch Harbor and fish Area 509, then that is where the majority of observers will be deployed.

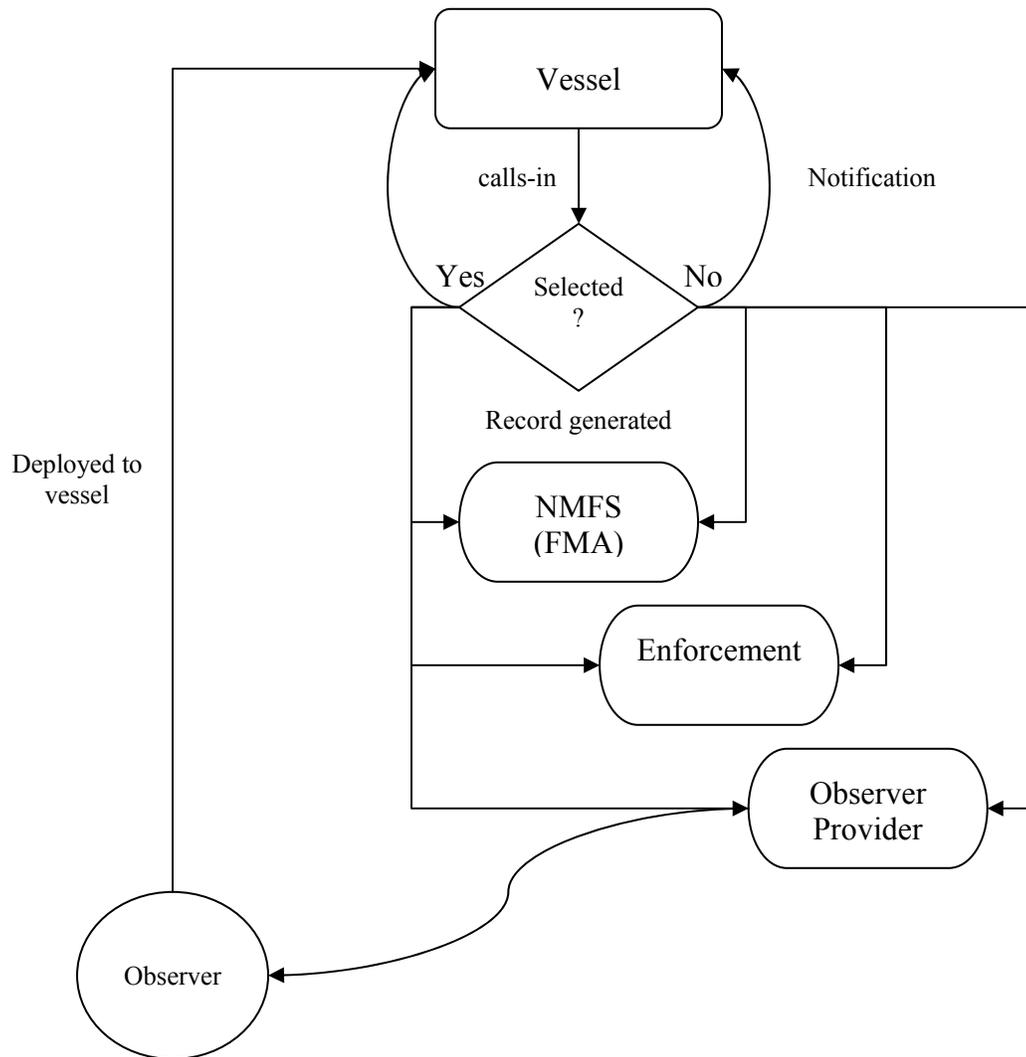
In practice, vessels that have a Federal Fishing Permit would be required to participate in a call-in system (Figure 1). During the call, the vessel operator would notify NMFS of their intent to fish prior to departure, determination as to whether or not that trip has been selected to be observed would be automatically generated, the caller would be notified of the result, and the resulting record with outcome would be sent to NMFS offices (anticipated to include FMA, AKRO, and enforcement) as well as the responsible observer provider. The automated selection of calls (the surrogate for trips) to be observed would be based on a predetermined randomization protocol with known selection probabilities.²² Observer providers would work with the vessel operator to coordinate observer logistics, as is conducted under the current deployment model (see *Contract with Observer Providers*, Section 4.2).

The new deployment model simplifies observer coverage requirements for vessel operators by shifting the onus of observer assignment from vessel operators to NMFS. Complex observer coverage requirements under existing regulations would be replaced with a simple "yes" or "no" decision as to whether their next trip is to be observed, and this information would be garnered from a phone call placed prior to the start of each fishing trip. To reduce bias, the selection process would be automated, incorporate randomization with known selection probabilities, and notification would be made as soon as possible to the beginning of a trip.

The new deployment model would be more difficult for NMFS to implement than the current system and would incur starting costs. The need to generate adequate sampling frames and rates for trip selection probabilities would incur analytical costs on NMFS as documented elsewhere (Cotter et al. 2002). Since knowledge as to the location (port) and timing of trips is not known well in advance, the new model would likely require a pool of observers at major ports to be available for deployment at a moment's notice. Since each observer will not be deployed instantly, this type of system places inefficiencies into the logistics of deployment, warranting costs to be paid in advance through a fee-based system.

²² This protocol has implications towards estimation equations and will be elaborated upon in future documents.

Figure 1 Flow diagram depicting series of events expected as part of vessel call-in system for observer deployment under restructuring Alternatives 2 - 5



Such systems have been successfully implemented elsewhere. Examples of trip-selection within the United States include the Northeast Fishery Science Center (Rago et al. 2005; Wigley et al. 2007) and the Pacific Islands Fishery Science Center (McCracken 2008). As proposed here, vessels in these example regions are required to notify NMFS of intended fishing area and date 72 hours in advance, and this is used to generate an anticipated need for observers at a given port and time. An observer deployment project with logistics similar to those proposed here was implemented in Kodiak, Alaska, by NMFS and the Pacific States Marine Fisheries Commission first during 2003 and again during 2005. The project deployed observers in a rockfish and flatfish trawl fishery in the Central Gulf of Alaska, and included nearly the entire Kodiak CV fleet and all the shoreside processors that participated in the July rockfish fishery. Although trip and area selection criteria were not based on the randomization scheme proposed here, the project demonstrated that the deployment of observers using a call-in system (with a notification

consisting of only 24-hours) is possible,²³ while observer providers reported reduced contingency planning and economic inefficiencies.²⁴

There will be contingencies. One contingency that will likely occur is a vessel's failure to realize a trip they anticipated at call-in. This may happen as a result of unintentional (*e.g.*, unforeseen vessel repair) or intentional (*e.g.*, manipulation or "gaming" by vessel operator) reasons. Under a pay-as-you-go fee structure, there remains the economic incentive to manipulate observer coverage to reduce real dollar costs to the vessel, and the vessel operator may be tempted to stay at the dock once assigned an observer or make a short, non-representative trip. Under a fee-based system observer costs are paid in advance, and consequently the costs associated with an assigned but not deployed observer are mostly realized in terms of coverage. For these reasons it is difficult to incur a penalty to the vessel to reduce gaming under either system. As stated by Hall et al. (2000): "...the determined violator can circumvent nearly any monitoring system employed to manage and enforce a fishery."

However, some potential rules could reduce their effects. The first rule would be to assign an observer's duties as the time from first departure from the dock until full offload of associated catch. If this rule is not enacted and a trip end is not clearly defined as being linked to the offload, a vessel operator when observed may either artificially shorten their trip to catch and partially offload only a few pounds of fish or not offload and depart on a second unobserved trip. Likewise, if unobserved, a vessel may artificially inflate the duration of their trip by partially offloading all of their catch but a few pounds, and return to sea. The prohibition of partial offloads during unobserved trips would be necessary to reduce this possible observer effect. An additional rule would be to mandate that a vessel may not depart for fishing if assigned an observer until that observer is on board. An observer would be assigned to a vessel for a stand-down period, during which if that trip has still not been realized by the originally assigned vessel, the observer is re-deployed to another vessel. Thus, there is a cost to intentional gaming of the system, *i.e.*, vessel operators that stay at the dock longer than the stand-down period may not be able to fish when they wish because an observer may not be available to them. These rules warrant development within NMFS in consultation with the Council, and could be part of the final implementation plan.

Strata

Identification of proper strata for sampling is important since it increases sampling effectiveness. Identification of what sectors are required to have 100% observer coverage is an important consideration in the alternatives before the Council, and has implications as to how costs are determined. Currently, the regulatory requirement used for observer deployment is vessel-days fished per fishery per quarter. Currently, vessels are divided into three strata based on a combination of vessel size, gear type, target fishery, and whether the vessel belongs to a catch share program: (1) the 100% fleet and (2) the 30% fleet, and (3) the unsampled 0% fleet. Under restructuring Alternatives 2-5, these three strata are reduced to two, defined as: (1) trips that belong to a group of trips that will be censused (the 100% or 200% fleet), and (2) trips that belong to the group of trips that will be sampled. Since the proposed primary sample unit is the individual fishing trip, designation of which strata each trip belongs to must be made based on characteristics that are observable and known *before* the trip occurs. Use of target fishery to stratify observer coverage is problematic because the principal species and areas targeted are not always those realized during fishing operations (Borges et al. 2005). However, metrics related to fishing power, location, and time to designate strata have been used effectively (Rago et al. 2005). In Alaska, it is

²³ Various sources including: (1) personal communications, e-mail correspondence, and notes from Alan Kinsolving (NMFS), Dave Colpo (PSMFC), Jennifer Ferdinand (NMFS), Todd Loomis (formerly NMFS), Jen Watson (NMFS) and Rich Wawrzonek (NMFS) collected during May-June 2008 and (2) Observer Advisory Committee Report, January 30, 2006. Accessed online on 07/13/09 and available at: http://alaskafisheries.noaa.gov/npfmc/current_issues/observer/OAC_106minutes.pdf

²⁴ Unpublished draft report from Alaskan Observers Incorporated to NMFS dated 10/18/2005 obtained from AKRO by FMA.

currently recognized that trip characteristics differ between: 1) catcher vessels, and 2) catcher processors and motherships. Because they can process fish at sea, trips originating from CPs and motherships are expected to be of longer duration than those originating from catcher vessels of a similar size. As a result, the size of the pool of trips among the fleet realized during a fishing season will be smaller for CPs and motherships than for CVs. In recognition of these facts, catch reporting requirements established by NMFS and the way in which data are utilized in the CAS currently differ between the two vessel types. Thus, there is an established rationale to warrant the stratification of the sampling design to sample trips from different vessel types at different rates.

The first stratum to be considered is the group of trips to be censused. Currently, there exist multiple regulations that mandate 100% observer coverage on CPs and motherships because of inclusion of these vessels in catch share programs such as the CDQ Program, the American Fisheries Act, and BSAI Amendment 80. However, there are also CVs participating under catch share programs that carry 100% observer coverage requirements. These include the Rockfish Pilot Program, and proposed Amendment 91 to the BSAI FMP for Chinook salmon bycatch management.²⁵ The rationale for such high coverage derives from the way the fisheries are managed. Since NMFS deducts both retained and discarded catch from allocated quota, there exists economic incentive to underreport discarded catch at-sea, and this incentive may be increased under catch share programs (Branch et al. 2006).

Full 100% observer coverage requirements have also been implemented in Australia and New Zealand catch share programs that are identical to those used in Alaska (Beddington et al. 2007). For these reasons, it is logical that the 100% stratum include: (a) trips originating from CPs and motherships, and (b) CVs fishing within a management system that uses prohibited species caps in conjunction with catch share programs (Table 4).

Table 4 Summary of vessels, vessel types, and management programs that will be included in the full coverage stratum

Stratum
Full-coverage (≥100%)
All catcher processors and motherships ¹
All catcher vessels fishing cooperatives with transferable quotas. ²

¹Includes *FV Golden Fleece*.

²Includes catcher vessels under proposed Amendment 91 to the BSAI FMP, and existing GOA Rockfish Pilot Program.

Note: It has not yet been determined whether some shoreside processors would be included in the full coverage stratum.

Having defined the 100% or more stratum, trips originating from all remaining fishing vessels comprise the sampled stratum. The coverage rate achieved (observed trips out of the total) for remaining trips is the direct result of the interplay between the amount of vessels fishing and the amount of revenue available for deployment. Both of these variables change between Alternatives 2 and 5. Given a fixed cost of an observer day⁻¹, observer coverage will be inversely proportional to the number of fishing days realized from trips within the sampling frame and proportional to revenue generated. Under alternatives that require a fee for revenue generation, it will be possible to use data from past years to estimate and compare the expected revenue [and thus the number of observer days, and corresponding coverage rate] that would have been garnered from past years under each alternative for relative comparison. Under alternatives that specify a pay-as-you-go system for this stratum, there exists the possibility that the cost of an observer is not equitable among participants.

²⁵ In addition, there are efforts underway by the Freezer Longline Coalition to form a cooperative for BSAI Pacific cod through Congressional action.

The revised definition of the 100% stratum eliminates length criterion from observer deployment regulations. This is important because there are several incentives towards building a 58' or 59' vessel with high fishing power, one of which is to avoid observer coverage requirements.²⁶ These incentives have given rise to a new class of "Super-8" vessels over which NMFS has expressed concern to the Council in documents related to observer restructuring and management of the GOA Pacific cod fisheries.²⁷ Under restructuring, CPs of this class would be included in the 100% coverage stratum. In addition, inclusion of all vessels within the "other" stratum incorporates vessels less than 60'.

Since the amount of observers and associated costs is finite (and hence so is observer coverage), implementation of new deployment strategies is envisioned to be incremental. Exact identification of strata and their coverage rates are to be examined in the full analysis. However, it is expected that implementation of observer deployment would be based on trips likely to participate in fisheries for which there are estimation needs for species managed with a prohibited species catch limit (warranting a higher coverage rate) and those without such caps. An example of one such fishery to be included for observer coverage under restructuring is that of the IFQ halibut and sablefish fishery. This fishery was the first in the U.S. to receive exclusive allocation rights under a catch share program. However, despite concerns raised at the time,²⁸ the fishery did not incur, nor does it currently have, any additional observer coverage requirements.

4.3.6 Summary

In conclusion, the proposed observer deployment design facilitates development of statistically credible estimates of catch and associated variance to be generated by expanding data from observed trips to unobserved trips within each stratum. While the new methods would reduce bias introduced through an observer effect, it would not necessarily reduce variance in obtained catch estimates. Catch estimates resulting from the new deployment design may still have high variance in certain instances as a result of observer error, low sample size, or (intentional or unintentional) misreporting of catch by vessels. The new design stratifies trips and corresponding observer coverage rates by vessel type. Full 100% coverage of all CPs and motherships will eliminate the need for NMFS (through the catch accounting system) to use production reports for estimation of retained catch. Likewise, the maintenance of 100% coverage for trips originating within catch share systems is consistent with successful use of observers to curb misreporting or high-grading of catches in identical programs enacted elsewhere in the world (Beddington et al. 2007). Implementation of the new observer deployment design will be logistically challenging, but possible.

Adoption of a new observer deployment design will undoubtedly incur short-term social and economic costs to NMFS and the industry. Adoption of the new observer deployment design funded by a fee offers two advantages over pay-as-you-go costing. First, deployment under a fee system will likely result in reduced observer bias because observed trips do not carry significantly greater daily costs above crew costs (such as food or space) than unobserved trips. Second, if observer costs are fixed at a daily rate, observer coverage in terms of total fishing trips will always be proportional to fishing effort, since the latter generates revenue for the former. Maintenance of a pay-as-you-go system for the 100% stratum ensures that coverage rates are achieved, but may introduce cost inequities among participants.

²⁶ Loy, W. 2009. Opponents say new 'Super 8' cod boats are just too good. *Pacific Fishing*, August:12 - 13.

²⁷ NOAA office of Law Enforcement and North Pacific Fishery Management Council. 2009. Discussion paper on vessel capacity limits. Web document accessed 07/10/09 at <http://alaskafisheries.noaa.gov/npfmc/analyses/VesselCapacityDisc509%20.pdf>

²⁸ Pautzke, C.G. and C. W. Oliver. 1997. Development of the Individual Fishing Quota Program for Sablefish and Halibut Longline Fisheries off Alaska. Online documents available at http://alaskafisheries.noaa.gov/npfmc/sci_papers/ifqpaper.htm.

4.4 Modify regulations

The following paragraphs in the regulations implementing the existing groundfish Observer Program at 50 CFR §679.50 state (Paragraph):

- (a) who must comply with the section;
- (b) the program’s purpose;
- (c) vessel observer coverage requirements;
- (d) shoreside processor or stationary floating processor observer coverage requirements;
- (e) NMFS staff observer requirements for vessels and processors;
- (f) Regional Administrator authority to adjust paragraph (c) and (d) observer requirements inseason;
- (g) vessel and shoreside processor responsibilities for observer food, safety, communication, etc.;
- (h) requirement to procure observers from permitted observer providers;
- (i) observer provider permitting and provider responsibilities;
- (j) observer certification and observer responsibilities, and;
- (k) parameters regarding release of observer data to the public.

This section describes changes that would be made to regulations to implement a restructured Observer Program. The extent of regulatory changes depends on the preferred alternative. Regulations would be different under a partial versus comprehensive program restructuring (Table 5). The content of paragraphs (a), (b), (g), and (k) reflects program elements that are likely to persist regardless of the selected alternative. There would be changes to paragraphs (c), (d), (e), and (h) under any of the proposed action alternatives. The fate of the content in paragraphs (i) observer provider permitting and responsibilities, and (j) observer certification and observer responsibilities, hinges on the selected alternative.

Table 5 Impact of partial and comprehensive program restructuring on regulatory paragraphs at §679.50

Regulatory Action	Partial Alternative	Comprehensive Alternative
Unchanged	a, b, g, i, j, k	a, b, g, k
Revised	c, d, e, h	c, d, e, h
Removed	f	f, i, j
Added	(see below)	

Unchanged paragraphs

Under a restructured Observer Program, the general compliance requirements and the purpose of the Observer Program (paragraphs (a) and (b), respectively) are not expected to change. Paragraph (g) contains the responsibilities required of vessel operators and plant personnel while an observer is deployed onboard their vessel or in their plant. These responsibilities ensure that an observer is provided adequate food and accommodation; a safe work environment; access to equipment for entering and transmitting data; prior notification of haul retrievals; and assistance collecting samples when needed. Paragraph (g) also stipulates protocols for transferring an observer to another vessel at-sea. Responsibilities listed in paragraph (g) are not expected to change under a new service delivery model. Also, a change in service delivery model is not expected to affect how NMFS may publicize information collected by observers described in paragraph (k).

Revised paragraphs

Paragraphs (c) and (d) would be revised to replace existing observer coverage level requirements based on vessel length, processing volume, or specific fishery with requirements that reflect newly adopted coverage tiers under a restructured program. Observer procurement procedures in paragraph (h) would be revised such that vessels and plants operating under the restructured program would be required to carry an observer supplied by NMFS' contracted provider when instructed to do so or when required by revised paragraphs (c) or (d), rather than to obtain an observer directly from a permitted provider. Under partial restructuring, some operators would continue to obtain observer services from a permitted provider and some would be required to carry the observer supplied by NMFS' contracted provider.

The authority for NMFS to deploy NMFS staff or other individuals authorized by NMFS on vessels or in plants required to carry observers to address special conservation and management concerns is provided by paragraph (e). This authority would be retained under any restructuring alternative to allow NMFS to address unique monitoring concerns (should they arise) under either service delivery model. A minor revision to paragraph (e) is anticipated under all action alternatives. Language in paragraph (e) pertaining to "observer coverage requirements as specified in paragraphs (c) and (d)," would likely be removed since observer coverage levels may not be specified for all operations in paragraphs (c) and (d) under partial or comprehensive restructuring.

Removed paragraphs

The existing regulations in paragraph (f) include a provision for the Regional Administrator to adjust the observer coverage requirements set out under paragraphs (c) and (d) at any time to improve the accuracy, reliability, and availability of observer data. A primary objective of restructuring the Observer Program is to increase the flexibility in when and where observers are deployed to effectively tailor data collection for management. Therefore, the provisions for adjusting observer coverage levels in paragraph (f) would be obsolete under a comprehensive restructuring alternative. They may need to be retained under a partially restructured program depending on the selected alternative and adopted tiers to continue to provide a safeguard for adjusting coverage in non-restructured program fisheries should the need arise.

Restructuring the Observer Program service delivery model would potentially have the greatest impact on existing regulations for receiving an observer provider permit and for becoming certified to work as an observer in the groundfish fisheries as well as the responsibilities of permitted observer providers and certified observers in paragraphs (i) and (j). Under a comprehensive restructuring alternative, paragraphs (i) and (j) would likely be removed in their entirety as these program elements would be included in the federal contracting process. Under this scenario, NMFS would award contracts rather than issue permits to successful providers. Government contracts with providers would include a statement of work with performance measures as described in the contracting section above. Federal contracts would stipulate the time frame of the contract, observer salary and benefit requirements, observer deployment logistics and limitations, limitations on conflict of interest, communications with observers and with NMFS, requirements to provide qualified observers in a timely manner, and other aspects not contained in the existing regulations to ensure high quality observer data are available for management. Moreover, observer qualifications, training requirements, and performance expectations would be defined in contracts with observer providers such that the contents of paragraph (j) would not need to be specified in regulations under comprehensive restructuring where all observer services are provided through direct government contracts. Level 2 observer and level 2 lead observer endorsements currently stipulated through regulations in paragraph (j) would likewise be replaced by qualification requirements specified in government contracts with observer providers. This would increase NMFS' ability to match observer skill with sampling complexity, which is a primary motivation for restructuring.

Under partial restructuring, observer providers would need to continue to comply with the requirements of paragraph (i) and observers with the requirements of paragraph (j) for non-restructured fisheries. Under this scenario, a provider contracting directly with NMFS and the industry would have different requirements under the two different service delivery models. Observers would have to be certified per the requirements of paragraph (j) to observe in non-restructured fisheries; observers working for providers in the restructured fisheries would have different performance requirements and would not have a certification per se. For further discussion of this and other issues related to administering two separate service delivery models, refer to section 4.5 below. The consequences of these dual model scenarios could be examined in a subsequent phase of the analysis

Added paragraphs

A restructured Observer Program would require several new regulations. Depending on the fee program selected, NMFS would need to add regulations stipulating fee liabilities and remittal requirements. It would be necessary to state which entities and operations are liable for a particular fee type and on what frequency fees are to be remitted to NMFS. Regulations should also include any penalties for delinquent payments, such as the withholding of a processing or fishing permit if applicable. Vessel notification requirements would also need to be added to the regulations. Given the complexities of implementing a hybrid program (two service delivery models operating simultaneously), a regulation may have to be added to prohibit vessels from crossing FMP areas within a trip in the case of partial restructuring by FMP area. This would be intended to prevent a single observer-covered trip from operating under both service delivery models.

Recurring rulemaking

As explained in the fee collection section, NMFS would need to establish the ex-vessel value fee percentage through proposed and final rulemaking. This fee percentage would not be codified in federal regulation, however proposed and final rulemaking in the Federal Register would be required to establish and adjust the fee percentage as necessary.

Annually, NMFS would need to publish the standardized groundfish prices, upon which fee liabilities would be based, in the Federal Register. The methods used to establish standardized prices would be determined through proposed and final rulemaking. As such, the process would be approved by the Council and the public would have the opportunity to comment on the proposed process. Once a method of establishing standardized prices is approved through a final rule, NMFS would publish the prices applicable for landings in the subsequent year in the last quarter of each calendar year. As prices would be adjusted annually, they would not be codified in federal regulation.

4.5 Issues related to administering two separate Observer Program service delivery models

The following is a discussion of some of the implications of administering two Observer Program service delivery models. Under Alternatives 2 and 3, only a subset of vessels and processors would be included in the new fee-based program in which NMFS directly contracts for observer services. Vessels and processors not covered under the new fee-based program would continue to operate in the current "pay-as-you-go" system. Thus, Alternatives 2 and 3 would restructure the Observer Program to a direct contract model for a segment of the fleet while leaving the existing regulated model in place for another segment. This is referred to as a 'hybrid' program in this section.

There are a number of issues related to interactions between the different models in a hybrid Observer Program. NMFS has experience running two programs using different models but these are in different fisheries, or in different regions of NMFS. For example, in Alaska, NMFS manages the groundfish program through the regulated model while also managing the Alaska Marine Mammal Observer Program (AMMOP) on an intermittent basis through the contracted model. The service providers contracted to the AMMOP program are also certified and work in the groundfish program, but each program operates on different fisheries in different areas.

Managing two different models simultaneously in the groundfish program could present challenges to NMFS, observer providers, and fishery participants because there is the potential for the two models to overlap. However, there may be advantages to operating a hybrid Observer Program. A hybrid could also be necessary for a period of time if the Council chooses a fully restructured program with implementation occurring in discrete stages or modules. The potential advantages of a hybrid system are not discussed in this document but will be included in the full analysis so that alternatives can be objectively evaluated. The challenges inherent in a hybrid model are presented here because they constitute implementation issues that need to be considered and addressed should a hybrid model be selected, or if there is a staged implementation of comprehensive restructuring.

Since the 2006 restructuring analysis, the alternatives have changed and NMFS has gained a better understanding of the issues surrounding a hybrid program. An updated discussion of the relevant issues follows.

Logistical concerns

Under a program in which there are two different models (direct contracts versus managing through Federal regulation), there could be logistical issues should a fishing operation move between the two models. From a fishing industry perspective, moving from one model to another could require a change of observer providers, a change in the observer, and a change in the payment mechanism. For example, under Alternative 2, vessels in the GOA would operate under the contracted model and vessels in the BSAI would operate under the current regulated model. A vessel moving from the GOA to the BSAI may have to go to port, disembark their current observer, offload any BSAI catch, and obtain an observer from a different observer provider before proceeding to fish in the BSAI. They would pay an ex-vessel fee for coverage in the GOA and pay the new provider directly for coverage in the BSAI.

From an observer provider's perspective using the above example, the contractor in the GOA would need to address the logistics of removing the observer, potentially in Dutch Harbor or a remote port, and the observer provider in the BSAI would have to likewise transport a different observer to that same port for deployment to the vessel before it began fishing in the BSAI. One might see a solution to the problem explained in this example, if the same observer provider covered the vessel in both the BSAI and GOA. However, this is not assured.

From NMFS perspective, the agency would need to incur the cost of the logistical change of observers, ultimately paid by industry in the fee assessment. Also, as different regulations would apply between the two models, NMFS would have responsibility for enforcing any violations of the regulations. From the observer's perspective, their deployment may be disrupted or, if they worked under both models, they could be shifted to a different contract and a different pay system (see labor cost inequities below).

Confidentiality requirements

Under the regulated model (status quo), observer providers are not authorized to view the confidential fisheries information collected by their observers. Under the direct contract model, NMFS is authorized

to treat observer providers like federal employees and provide them access to confidential fisheries information. They would likely need confidential fisheries information to enable them to most efficiently and effectively conduct some of their contractual duties. For example, if the contract required the observer provider to do initial review and editing of observer data as a quality control measure prior to submission to NMFS (debriefing). Under a hybrid program, observer providers operating in both models would need to establish internal controls that ensure the confidentiality requirements are met under each model. In essence, they would need to keep business in one model separate from business in the other. These efforts would add to the observer provider's internal administrative complexity and possibly increase administrative costs.

Alternatively, NMFS could choose to constrain the contracted model and not allow observer providers access to confidential data. Allowing access is an option but not a requirement. However, preventing access to confidential data would decrease the observer provider's ability to monitor and manage their employees because they would not be able to view the detailed fisheries information they collect. This approach would degrade some of the benefits of moving to a contracted model.

Observer provider cost reporting and billing

An added complexity of a hybrid program, where an observer provider operates in both the NMFS contracted and regulatory segments of the fishery, involves the cost reporting and billing requirements placed on observer providers. NMFS is in the process of developing a proposed rule that will require observer providers under the current observer delivery system (regulated model) to submit copies of all billing invoices submitted to the fishing industry for observer services. In conjunction with this, observer providers awarded a government contract under the fee-based system will be submitting bills to NMFS for observer services rendered under that contract. Therefore, any observer provider who operates under both the regulated and contracted systems would have additional administrative complexities and possible increased costs associated with maintaining two separate sets of financial books. Under the regulatory system, the observer provider would be submitting invoice copies to NMFS representing costs paid directly by the fishing industry and under the contracted model the observer provider would be billing NMFS for similar observer services. Not only will there be required separation in billing records and procedures but there would likely be added accounting difficulties should a single observer work in both the regulated and contracted programs during the same deployment. For example, the observer provider would need to address the issue of dividing the cost of airline and accommodations between the two programs.

Flexibility to modify observer provider responsibilities

Under the regulated model, NMFS manages observer providers through federal regulations. When changes to regulations are needed, the process is time consuming and labor intensive. In general, regulations take considerable time to change so their effectiveness as a management tool is limited in a dynamic operational environment.

Under the direct contract model, NMFS would manage observer providers through federal contracts. Contracts can be modified on a tight schedule, though there can be cost implications. Contracts can also be modified by periodic revisions to task orders and statements of work, requiring minimal time and effort compared to changes in federal regulations. In general, contracts allow more flexibility to respond to changing fisheries management programs and requirements.

Under a hybrid program, the Observer Program operating rules and procedures could diverge between the contracted model and the current regulated model. This is because contracts could be modified to meet changing needs relatively easily, but regulatory changes would not likely be able to keep in

synchronization with contract changes. For example, under the contracting model, NMFS might find the need to direct observer providers to place only experienced observers on certain vessel types. This change could be made relatively quickly through the contract modification process. However, if NMFS wanted to make the same change in observer provider responsibilities under the regulated model, it would take much longer. To put it another way, the time it would take to make a contract modification of the type given in this example would be measured in months, whereas the time it would take to make the same change under the regulatory model would be measured in years.

Clarity in responsibilities and level of complexity

Under the status quo regulated model, observer service providers and industry must comply with rigid coverage requirements and other regulations. The burden is on the fishing industry to obtain required coverage through observer providers.

Under the direct contract model, the contract establishes observer service provider requirements. The fishing industry would still need to comply with regulations, but they would change for some vessels. For instance, vessels requiring less than 100% coverage, that previously had to comply with complex 30% coverage rules, would now only be required to comply with notification rules and carry an observer through a random selection process. As well, other segments of the fishing industry may be required to take observers (i.e., less than 60' fleet) but they will not need to track compliance with specific coverage requirements.

Under a hybrid program, the level of complexity would increase because there would be two sets of rules depending on which model applies. The impact of this increased complexity would vary from the point of view of each stakeholder. A description of the increased complexity under a hybrid model for various stakeholders is provided below.

Fishing industry: A fishing company may operate under contracted and regulated models simultaneously. For example, under Alternatives 2 and 3, a company with fishing vessels operating in both the BSAI and GOA would follow one set of notification regulations in the GOA and be assigned to work with an observer provider selected by NMFS, while in the BSAI, these same vessels would have to follow current coverage requirements, and pay for observers directly to a permitted observer provider of their choice. Thus, this example notes the potential for a fishing company to have to work with two different observer providers and comply with two different sets of regulations.

Observer Providers: An observer provider has the potential to work under both the contracted and regulated model at the same time. The contracted model will have contract requirements whereas the regulated model will be governed by regulations. The contracted model may require specific placement of certain experienced observers with specific skill sets on particular vessels. This could reduce their flexibility in providing observers under the regulated model because their pool of experienced observers would be reduced by the contract requirements.

NMFS: Some operations within the Observer Program have the potential to become more complex and therefore administratively more burdensome and inefficient under a hybrid model. For example, when many observers return from sea at the same time, it takes longer for an observer to complete debriefing. Essentially, a line forms and each observer must wait their turn to debrief. Under the hybrid model, the question will arise – Does NMFS move observers who worked under the contracting model, to the front of the line (to save money) and use fee collected funds in a more cost-effective and efficient manner, or does NMFS treat all observers the same and operate debriefing on a first-come-first served basis?

Observers: An observer may face different working environments, depending on whether they will be working in a regulated or contracted model. Pay structures could be different and vessel or plant assignments may vary depending on the model they are working under.

Labor cost inequities

Under the regulated model, there are five currently active observer providers. Three of them operate under Union agreements and two do not. Because these observer providers compete with each other both for industry clients and for observer employees, the salaries and benefits paid to observers are roughly comparable.

Under the contracted model, NMFS would expect labor cost increases due to invocation of the Service Contract Act, which establishes a base wage and requirements for fringe benefits. Therefore, under a hybrid program, two different salary and benefit standards could be in place, creating disparities in the compensation package provided to observers, or an overall increase in that package could be realized under both models. It is difficult to predict how the disparity would be addressed by observer providers, individual observers, and in any collective bargaining agreements.

5 Relative costs associated with partial and comprehensive restructuring alternatives

The process of developing this implementation plan provided NMFS an opportunity to identify where additional staff time would be needed to complete new agency responsibilities anticipated to implement a restructured Observer Program. At this stage, NMFS has identified new tasks that would be required to move to a model in which NMFS contracts for and deploys observers with industry-generated fees. This section provides a general overview of the additional tasks that would be required of the agency. A more detailed cost discussion will be included in the next phase of the analysis as the range of responsibilities and the resulting agency costs will vary depending on the scope of the alternatives.

Three primary areas of added responsibility include: (1) contracting with observer providers, (2) tasks associated with deploying observers in the less than 100% tier, and (3) tasks associated with collecting fees from the industry. In general, and contingent on the scope of the preferred alternative, NMFS anticipates that approximately three to five new employees will be needed to accomplish tasks in the three areas mentioned above.

A large percentage of the new workload will result from the process required to contract with observer providers. The responsibilities required to contract with providers are explained in Section 4.2. Once contracts are in place, NMFS will need to dedicate personnel to monitor the performance of observer providers, issue new task orders, and respond to any necessary modifications to the contract. If a comprehensive restructuring alternative is selected, NMFS could modify the duties of existing personnel to fill those roles. However, if a partial restructuring alternative is selected, additional staff would likely be needed as existing personnel would need to continue the tasks they perform under the current service delivery model. It is also conceivable that WAD would require additional personnel to manage the scale of contracting under consideration for the Observer Program.

Executing the sampling plan for vessels with less than 100% coverage may require additional personnel. New responsibilities include: determining and adjusting as necessary, optimal observer coverage levels in the various fisheries or sectors; and creating and managing the vessel selection system.

Establishing and collecting fees from industry will also impose additional responsibilities on NMFS. Additional personnel will likely be needed to manage the fee collection process as explained in Section 4.1. Primary new, ongoing responsibilities include: determining ex-vessel prices for all species/species groups; programming new standard prices into eLandings fish tickets; preparing an annual Federal Register notice of standard prices; preparing fee invoices for industry; accounting for receipt of fee payment; performing audits; and following-up on delinquent payments.

A more detailed agency cost estimate, per each alternative, will be included in the subsequent analysis. The intention of this section is to identify major, new areas of responsibility and preliminarily assess the agency's capacity to execute a restructured program. This preliminary assessment of a general range of responsibilities anticipated from the various alternatives indicates that the agency could likely structure resources to meet the increased agency responsibilities required to implement a new service delivery model.

6 Projected timeline for Observer Program restructuring implementation

The projected timeline for restructuring the Observer Program is dependent on several steps, many of which are associated with the normal Council and rulemaking process. However, a primary element of the timeline for this specific action is the time it takes for the federal contracting process, in order for NMFS to develop and award contract(s) to observer providers. Based on the size and complexity of the potential contract(s), it is estimated to take about 2 years to complete the contracting process. See Section 4.2 for a detailed description of the federal contracting process and the tasks involved.

The potential schedule could be outlined as follows, recognizing that the actual time necessary for implementation will be dependent upon feedback from the OAC, Council, and NMFS as the process continues:

- Sept 21-22, 2009: OAC review of implementation plan
- Oct 2009: Council review of implementation plan and OAC report
- Oct 2009 to May 2010: Develop initial draft analysis for restructuring the Observer Program
- June 2010: Council review of the initial draft analysis
- June 2010 to Sept 2010: Development of public review draft analysis
- Oct 2010: Council final action on restructuring analysis
- Oct 2010 to Oct 2011: Development of proposed rule
- 2010 – 2012: Contract development
- Oct 2011 – April 2012: Development of final rule; final rule published mid-2012
- Mid-2012: Fee collection starts and contract is awarded
- Dec 2012: Funds available for task order to be awarded under contract
- 2013: Observer Program begins operation under restructured program²⁹

²⁹ Timeline assumes sufficient funds are generated in Year-0 to fully implement a restructured program.

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Appendix 1. Current groundfish and halibut observer requirements including requirements for CDQ fisheries

Area	TAC	Type	Vessel Type	Size/Specification	Coverage Requirement	Observer Requirement	Regulation
BSAI	IFQ - Halibut	All			None unless also directed fishing groundfish CDQ		
BSAI	CDQ - Halibut	See IFQ - Halibut					Reauthorized MSA
BSAI	IFQ - Fixed Gear Sablefish	Any	Catcher Vessel	< 60'	None		
		Pot	Catcher Vessel	≥ 60'	30% + one full trip per quarter	≥ 1	679.50 c(1)(vii)
			Catcher/Processor	All			
		Longline	Catcher/Processor	60' to < 125'	30% + one full trip per quarter in EGOA		679.50 c(1)(v) & (vi)
				≥ 125'	100%		
		Any	Shoreside Processor	< 500 mt	None		
				500 to < 1,000 mt	30% per quarter	≥ 1	679.50 d(2)
				> 1,000 mt	100%		679.50 d(1)
BSAI	CDQ - Fixed Gear Sablefish	See IFQ - Fixed Gear Sablefish					Reauthorized MSA
BS	AFA Pollock	Trawl: Listed Vessels	Catcher/Processor & Mothership		100%	≥ 2; 1 must be lead level 2	679.50 c(5)(i)(A)
		Trawl: Non-Listed Vessels BSAI pollock directed fishing or deliveries	Catcher/Processor		100%	≥ 2; 1 must be lead level 2	679.50 c(5)(ii)(B)
		Trawl	Catcher Vessels	< 60'	None		
				60' to < 125'	30% + one full trip per quarter	1	679.50 c(1)(v)
				≥ 125'	100%	≥ 1	679.50 c(1)(iv)
Groundfish Deliveries from vessels in BSAI pollock fishery	AFA Inshore Processor		100%	≥ 1	679.50 d(6)		

Area	TAC	Type	Vessel Type	Size/Specification	Coverage Requirement	Observer Requirement	Regulation
AI	Pollock	Catcher/Processor & Mothership			100%	≥ 2; 1 must be lead level 2	679.50 c(5)(i)(C)
AI	Atka Mackerel	Trawl in the HLA	Any except Amendment 80 Vessel		100%	2	679.50 c(1)(x)
		Trawl Deliveries	Amendment 80 Catcher/Processor as Mothership	See BSAI Amendment 80			679.50 c(6)(i)
BSAI	CDQ - Pollock	See AFA Pollock					Reauthorized MSA
BSAI	CDQ - Groundfish	Trawl & Trawl Deliveries	Catcher/Processor & Mothership		100%	≥ 2 level 2; 1 must be lead	679.50 c(4)(i)(A)
		Longline	Catcher/Processor		100%	≥ 2 level 2; 1 must be lead ^a	679.50 c(4)(ii)
		Pot	Catcher/Processor		100%	≥ 1 lead level 2	679.50 c(4)(iii)
		Trawl	Catcher Vessel ^b	≥ 60'	100%	≥ 1 level 2	679.50 c(4)(iv)
		Non Trawl, Option 1	Catcher Vessel	≥ 60'	100%	≥ 1 level 2	679.50 c(4)(v)(A)
		Non Trawl, Option 2				≥ 1 lead level 2	679.50 c(4)(v)(B)
		Shoreside processor and floating stationary processor receiving CDQ groundfish ^c			100%	≥ 1 level 2	679.50 d(5)
BSAI	Amendment 80	Any	Catcher/Processor		100%	≥ 2; 1 must be lead level 2	679.50 c(6)(i)
GOA	Amendment 80	Any	Catcher/Processor		100%	≥ 1	679.50 c(6)(ii)
CGOA	Rockfish Cooperative	LLP License, May 1st through November 15 or time and date of cooperative termination of fishing declaration (whichever earlier)	Catcher/Processor		100%	≥ 2; 1 must be lead level 2	679.50 c(7)(i)(A)&(D)
			Catcher Vessel		100%	≥ 1	679.50 c(7)(ii)(A)

Area	TAC	Type	Vessel Type	Size/Specification	Coverage Requirement	Observer Requirement	Regulation
CGOA	Rockfish Limited Access	July 1st through November 15 or time and date of fishing closure (whichever earlier)	Catcher/Processor		100%	≥ 2; 1 must be lead level 2	679.50 c(7)(i)(B)&(D)
			Catcher Vessel		100%	≥ 1	679.50 c(7)(ii)(B)
GOA except SE Outside	Rockfish Sideboard	Other than catcher processor in opt-out fishery; July 1 through July 31 in West Yakutat, Central GOA, or Western GOA	Catcher/Processor		100%	≥ 2; 1 must be lead level 2	679.50 c(7)(i)(C)&(D)
		Opt-Out Fishery	Catcher/Processor		100%	≥ 1	679.50 c(7)(i)(F)
ALL	Groundfish	Any	Catcher Vessel	< 60'	None		
		Any	CP or CV	60' to <125'	30% + one full trip per quarter	1	679.5 c(1)(v)
		Any	CP or CV ≥125' except for pot gear	≥125'	100%	≥ 1	679.50 c(1)(iv)
		Pot	CP or CV	Any Length	30% + one full trip per quarter	1	679.50 c(1)(vii)
		Any	Shoreside or stationary floating processor	500 to 1,000 mt	30% per quarter	1	679.50 d(2)
				≥1,000 mt	100%	1	679.50 d(1)
		Trawl	Any CP or CV fishing for groundfish in the Nearshore Bristol Bay Trawl Closure Area		100%	1	679.50 c(1)(ix)
		Any	Any CP or CV fishing for groundfish in the Red King Crab Savings Area				679.50 c(1)(viii)

^a NMFS may approve alternate fishing plan authorizing vessel to carry only one lead level 2 observer if CDQ group supplies vessels logbook or observer data that demonstrates that one level 2 observer can sample each CDQ set for species composition in one 12-hour shift per fishing day.

^b Except catcher vessels delivering only unsorted codends to processor or other vessel.

^c Level 2 observer not required for halibut CDQ vessels < 60' LOA; CDQ vessels ≥ 60' using nontrawl gear that have selected Option 1 so long as the level 2 observer on the vessel monitors the entire delivery; or vessels ≥ 60' using nontrawl gear that have selected Option 2.

Appendix 2 NMFS' Fee Collection Programs

NMFS currently administers several fee collection programs in the North Pacific including the halibut/sablefish IFQ cost recovery, BSAI crab cost recovery, and three fishing capacity reduction program loan repayment fees (AFA inshore, BSAI hook and line catcher/ processor, and BSAI crab). As shown in Table 1, NMFS now has experience with all price and collection permutations for collecting fees from the groundfish and shellfish fisheries in the North Pacific. Given the range of existing programs, there is likely a suitable price and collection combination to collect fees for the observer program. Of the programs listed, the halibut/sablefish IFQ and BSAI crab cost recovery programs most closely emulate fee collection programs NMFS would seek to establish for a restructured observer program. The fee establishment and collection methods for these programs are explained in this Appendix.

BSAI Crab Cost Recovery

By statute, fees must be shared equally by the harvesting and processing sectors; by regulation, processors also referred to as registered crab receivers (RCRs), assume the fee liability and remit the fees to the Government. NMFS computes the annual fee percentage that applies each crab-fishing year. Fees are owed based on total value of crab landings in money, goods, or services. NMFS sends fee statements to RCRs based on their own reported landings and value as computed for fee collection purposes. For crab delivered raw for processing, each RCR's fee liability is estimated by multiplying the annual fee percentage needed to recover costs (up to 3%) by the ex-vessel value of Program crab based on the price paid at the time of purchase. Shoreside processing facilities must include any subsequent retroactive payments as adjustments to the initial calculation of fee liability.

Catcher processors (CPs) participate in both the harvesting and processing sectors, thus, vessel owners or operators must be RCRs and are responsible for paying the full fee liability. NMFS calculates standard prices for CPs to minimize disparities in the fee liability paid by shoreside processors and CPs, since CP product has a higher value than the shoreside deliveries of unprocessed crab. Crab CPs are responsible for calculating their fee liability at the end of the crab fishing year based on the current year's standard prices provided to them by NMFS Restricted Access Management (RAM).

Fees are due annually by July 31 for the prior crab-fishing year. Penalties, interest, and administrative charges are added if an RCR becomes delinquent in payments. NMFS cannot issue any annual crab permits to a person who owes unpaid fees. During the first three years, fee compliance was excellent with no outstanding debts sent to the U.S. Department of the Treasury for collection.

For the 2007/08 crab-fishing year, twenty RCRs were sent estimated fee liability statements. The estimated value of the fishery (based on what we billed for 2007/08) is just over \$202M. This value is derived from price information entered by the RCRs in the eLanding system at the time of delivery.

Halibut and Sablefish IFQ

Halibut and sablefish IFQ cost recovery fees are collected under the same authority and limits as the BSAI crab cost recovery program (section 304(d)(A) of the MSA). The program places responsibilities on: 1) IFQ Registered Buyers acting as shoreside processors and 2) IFQ permitholders with landings of halibut or sablefish authorized by their permit.

Registered Buyers must report the price and amount of purchased pounds of halibut and sablefish by species, month, and port, which are essential for calculating annual standard ex-vessel prices of IFQ fish.

Reports are due at RAM by October 15 each year. IFQ permit holders are responsible for fees owed for all landings on their permit, regardless of whether their IFQ pounds were from their own QS or leased from another quota shareholder and regardless of whether a permit holder or hired skipper made the landing.

Permit holders must pay their fee liability no later than January 31 of the year after the calendar year of landings. There are two payment options:

Option 1: Permit holders may pay the amount billed (RAM's calculation of the annual fee owed based on standard prices and values) or

Option 2: Permit holders may pay an amount based in whole or in part on actual ex-vessel value from the sale of their IFQ halibut or sablefish. If they choose this option, they must be prepared to demonstrate, with written documentation, how much they were paid for those IFQ landings.

At the end of each IFQ season, NMFS: compiles a list of all IFQ landings by species, month, and port group, uses shoreside Registered Buyer data to calculate a set of standard ex-vessel prices for IFQ fish landed; applies the appropriate standard ex-vessel price to each landing, which creates a standard ex-vessel value for each landing; sums the total standard ex-vessel values of all landings to derive the total ex-vessel value of the year's IFQ fishery; uses direct program costs and total ex-vessel value to calculate the annual fee percentage; and applies the percentage to the standard ex-vessel values to determine the fee owed for each landing; and sums the fees owed for all landings on the IFQ permits held by each person. This final figure is the annual fee owed by each permit holder, based on standard prices and values. NMFS mails the IFQ permit holders a summary that itemizes their landings and shows their calculated fee liability.

Table 1 Comparison of NMFS' various fee collection programs in the North Pacific

Program	Ex-vessel Value Type	Collection Method	Percent Fee Limit	Frequency	Number of Participants ¹	Implementation Date	Framework
Halibut and Sablefish IFQ	Standard or Actual	NMFS direct billing of IFQ permit holders; IFQ registered buyers submit price report	3%	Annually	2,381 permit holders ²	March 15, 2000	§ 679.45
BSAI Crab Cost Recovery Fees	Shoreside = Actual	Processor (RCR) collects and submits to NMFS	3%	Annually	20 RCRs ³	April 1, 2005	§680.44
	CPs = Standard based on shoreside	RCRs ⁴ submit report and payment to NMFS					
AFA CVs delivering to inshore processors	Standard - \$0.06 for each pound of pollock	Processor (buyer) collects and submits to NMFS	5%	Monthly	100 sellers; 8 buyers	February 3, 2000	§ 600.1012-1017
BSAI Longline CP Buyback Repayment	Standard - Expressed as cents per pound of cod ITAC to collect for preceding year's principal and interest	Processor (buyer) collects and submits to NMFS	5% of subsector's cod landings	Monthly	24 Vessels	October, 2007	§ 600.1012-1017
BSAI Crab Buyback Repayment	Actual Price for King and Tanner Crab	Processor (buyer) collects and submits to NMFS	5%	Monthly	~50 ⁵	October, 2005	§ 600.1012-1017

¹ Approximate numbers, vary

² Number of participants billed by NMFS for 2007 fishery. Source: Halibut and Sablefish IFQ Report to the Fleet 2008.

³ Source BSAI Crab Rationalization Report, Fishing Year 2007/2008.

⁴ CPs are RCRs

⁵ Source Michael Sturtevant, NMFS, Personal Communication, 8/24/2009