FINAL ENVIRONMENTAL ASSESSMENT/REGULATORY IMPACT REVIEW/ FINAL REGULATORY FLEXIBILITY ANALYSIS

for a Regulatory Amendment to Extend the Program for Observer Procurement and Deployment in the North Pacific

Abstract: The regulations that authorize and implement the North Pacific Groundfish Observer Program (observer program) expire December 31, 2007. The existing program design is driven by coverage levels based on vessel size and processing volume that, for the most part, have been fixed in Federal regulation since 1990. Vessels and processors currently contract directly with observer companies to receive observer services to meet the coverage levels in regulation. This regulatory analysis evaluates five alternatives. In addition to the no action alternative which would allow the program to expire after 2007 (Alternative 1) and extension of the existing program (Alternative 2), three alternatives (Alternatives 3 – 5) are considered to restructure the funding and deployment mechanism of the observer program. All three restructuring alternatives would change the existing service delivery model for some portion of the North Pacific groundfish and halibut fisheries, such that NMFS would contract directly with observer providers for observer coverage, supported by a broad-based user fee and/or direct Federal funding, as available. Alternatives 3 – 5 differ by the scope of the vessels and processors included in the new program and the type of fee assessed.

Alternatives 3 – 5 were developed to address a variety of longstanding issues associated with the existing system of observer procurement and deployment, including the inability of NMFS to determine when and where observers should be deployed, inflexible coverage levels in regulation, disproportionate cost issues among the various fishing fleets, and the difficulty to respond to evolving data and management needs in individual fisheries. However, existing obstacles prevent a comprehensive analysis of potential costs. Council action on a restructured program before the December 31, 2007, expiration date is not possible until information is forthcoming that could include clarification of cost issues that arise from Fair Labor Standards Act and Service Contract Act requirements. Additionally, while statutory authority to assess fees for a contracted observer program appears to have been granted under the reauthorized Magnuson-Stevens Act, NMFS must undergo rulemaking to implement this fee structure. Until such issues can be resolved, NMFS recommended that the Council select Alternative 2 as the preferred alternative, to prevent the scheduled expiration of the existing program on December 31, 2007. The Council selected Alternative 2 as its preferred alternative on June 11, 2006. The intent is to initiate a new amendment package proposing a restructured observer program at such time that: (1) legislative authority is established for fee-based alternatives; (2) Fair Labor Standards Act 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.

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Executive Summary

This final Environmental Assessment/Regulatory Impact Review/Final Regulatory Flexibility Analysis (EA/RIR/FRFA) examines the environmental and economic effects of extending or restructuring the North Pacific Groundfish Observer Program (Observer Program). Extension of the current program requires a Federal regulatory amendment; restructuring of the current program would require amendments to the Fishery Management Plan for Groundfish of the Bering Sea and Aleutian Islands Management Area (BSAI FMP) and the Fishery Management Plan for Groundfish of the Gulf of Alaska Management Area (GOA FMP). The action was intended to address a variety of longstanding issues associated with the existing system of observer procurement and deployment, and to ensure that regulations authorizing the Observer Program remain in effect beyond the current sunset date of December 31, 2007. At its February 2003 meeting, the Council approved the following **problem statement** for restructuring the Observer Program, which was amended in February 2006, to include the second paragraph:

Observer Program 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. 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.

While the Council continues to recognize the issues in the problem statement above, existing obstacles prevent a comprehensive analysis of potential costs. Immediate Council action on a restructured program is not possible until information is forthcoming that includes clarification of cost issues that arise from Fair Labor Standards Act and Service Contract Act requirements and statutory authority for a comprehensive cost recovery program. During the interim period, the Council must take action to prevent the expiration of the existing program on December 31, 2007.

At its June 2006 meeting, the Council selected Alternative 2 as its preferred alternative (extension of the current program) for this action. The Council was, in part, responding to a letter from NMFS Alaska Region dated January 22, 2006, in which NMFS recommended extending the existing program under Alternative 2 until a number of critical cost-related issues could be resolved.[1] In support of this approach, at the February Council meeting, NMFS recommended that the Council adopt Alternative 2 to maintain the current program until costs of a restructured program are able to be analyzed and statutory barriers to fee collection are resolved.

[1]Letter from Robert D. Mecum, Acting Administrator, Alaska Region to Stephanie Madsen, Chair, North Pacific Fishery Management Council, January 22, 2006. See Appendix II.

The Council also 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)** Fair Labor Standards Act (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. The Council also recommended that subsequent amendment packages regarding the Observer Program include an option for the Federal funding of observers.[2]

Development of the current suite of alternatives

The existing Observer Program, in place since 1990, establishes coverage levels in Federal regulations for most vessels and processors based on vessel length and amount of groundfish processed, respectively. Vessels and processors contract directly with observer companies to receive observer services to meet the coverage requirements in Federal regulations. NMFS is not party to this contract. 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.

Under the original intent for this proposed amendment, the observer program would be modified 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. The proposed amendment was thus intended to address a variety of longstanding issues associated with the existing system of observer procurement and deployment, and the original problem statement and alternatives were developed to this effect.

Because previous attempts to restructure the program had not been successful, NMFS, Council staff, and the Observer Advisory Committee (OAC) originally considered a stepwise approach in this amendment package. This was based on the concept that it might be effective to undertake a less ambitious restructuring effort focused primarily on those regions and fisheries where the problems of disproportionate costs and coverage are most acute. The intent was that once a restructured program had been implemented successfully for some fisheries, the Council could decide whether or not to proceed with expanding the program to include additional fisheries. The initial alternatives approved by the Council in April 2003, reflected this approach, and focused primarily on the groundfish and halibut fisheries of the GOA, with options to include BSAI groundfish vessels that currently have less than 100% coverage requirements. In December 2003, the Council reviewed a preliminary draft analysis of the impact of those alternatives that were focused primarily on the GOA.

As NMFS began to evaluate alternatives under this scenario, however, concerns arose that certain operational and data quality issues would be difficult to resolve under a "hybrid" system (with some fisheries covered by a new program and others continuing to operate under the old system) and that, in fact, some of these problems would likely become exacerbated under such a system. NMFS identified a range of operational and data quality issues associated with the current model. These included the agency's inability to: determine where and when observer coverage takes place on less-than-100% observed sectors of the fleet; match observer skill level with deployment complexity; reduce observer coverage for sectors of the fleet that are now subject to 100% or greater coverage levels; and implement technological innovations which might meet monitoring needs while reducing observer coverage costs and expenses.

[2]These recommendations were part of the Council's motion on February 11, 2006.

At the February 2004 Council meeting, NMFS described the above concerns and informed the Council that the agency had determined that effective procedures for addressing observer performance and data quality issues could only be addressed through a service delivery model that provided direct contractual arrangements between NMFS and the observer providers. NMFS thus recommended that the Council include an additional alternative to the draft analysis that would apply the proposed direct contract model program-wide, so that all observer services in the Federal fisheries of both the BSAI and the GOA would be provided by observer companies through direct contracts with NMFS.

At its June 2004 meeting, the Council approved seven alternatives, distinguished primarily by scope, which ranged from a new program for GOA groundfish fisheries only to a comprehensive program for all groundfish and halibut fisheries off Alaska. At its June 2005 meeting, the Council decided to consolidate its suite of alternatives in order to eliminate redundancy between alternatives and better focus the analysis on the major policy issues facing the Council and NMFS in developing a new groundfish observer program for the North Pacific. The Council thus approved the current suite of five alternatives in June 2005.

NMFS submitted a letter to the Council (January 22, 2006) prior to the February Council meeting, recommending that the Council extend the existing program until several critical cost-related issues and statutory barriers are resolved (see Chapter 1). The OAC met in late January to provide recommendations on the analysis and review the NMFS letter. The committee ultimately recommended that the Council select Alternative 2 as its preferred alternative for this analysis, given the need for continuing the program in the short-term and the lack of control over the Congressional authority and cost issues. The Council reviewed both NMFS's recommendation and the January OAC report in February 2006.

At its February 2006 meeting, the Council discussed NMFS and OAC recommendations to adopt Alternative 2 as the preferred alternative. Because it appeared reasonable to delay any action on restructuring the Observer Program (Alternatives 3 – 5) until the issues described above were resolved, the Council also discussed whether to initiate subsequent action and analytical documents that would include only current Alternatives 1 and 2. Some members of the Council were concerned that, with this scale down amendment package, a decision to adopt Alternative 2 could be taken out of context, and not reflect their efforts and reasoning for adopting an extension to the current program, despite its problems and shortcomings. Based on these discussions and with concurrence from NMFS, the Council chose not to initiate a separate analysis to extend the Observer Program beyond 2007, but rather to continue to include analysis of Alternatives 3-5, to the extent practicable. By including these alternatives, the public could better understand how the Council arrived at its decision.

With this in mind, the Council selected Alternative 2 as its final preferred alternative in June 2006, noting that the February 2006 motion outlines the intent to consider a new amendment to change the observer program service delivery model at such time that additional information is available, and assuming such authority is granted by Congress.

Summary of the Alternatives

While the restructuring alternatives remain in this document, primarily to provide context and supplemental information relative to the Council's action, the public should only consider and provide comment on the "no action" alternative (Alternative 1), and the "status quo" alternative (Alternative 2) which extends the current Observer Program beyond 2007, as this represents the decision point at this time.

Alternative 1. **No action alternative.** Under this alternative, the current interim "pay-as-you-go" program would continue to be the only system under which groundfish observers would be provided in the groundfish fisheries of the BSAI and GOA. Regulations authorizing the current program expire at the end of 2007, meaning that no action is not a viable alternative over the long-term.

Alternative 2. **Rollover alternative: Extension of the existing program.** (**preferred alternative**). Under this alternative, the 2007 sunset date for the existing program would be removed and the program would be extended indefinitely, with no changes to the overall service delivery model. This alternative would prevent the existing program from expiring, until such time that comprehensive restructuring may be possible.

Alternative 3. **GOA-based restructuring alternative. Restructured program for GOA groundfish and all halibut fisheries; rollover existing program in BSAI.** A new ex-vessel value fee program would be established to fund coverage for GOA groundfish vessels, GOA-based processors, and halibut vessels operating throughout Alaska and adjacent EEZ waters. Regulations that divide the fleet into 0%, 30%, and 100% coverage categories would no longer apply to vessels and processors in the GOA. Fishermen and processors would no longer be responsible for obtaining their own observer coverage. NMFS would determine when and where to deploy observers, based on data collection and monitoring needs, and would contract directly for observers using fee proceeds and/or direct Federal funding. Vessels in the GOA would be required to carry an observer when one is provided by NMFS. Under this alternative, the current "pay-as-you-go" system would be unchanged for all groundfish vessels and processors that operate in the BSAI. Vessels and processors that operate in both management areas would obtain their observer coverage and pay fees through whichever program applies to the management area in which they are operating.

Alternative 4. **Coverage-based restructuring alternative. Restructured program for all fisheries with coverage less than 100% (Tiers 3 and 4).** This alternative differs from Alternative 3 in that the program would be defined by coverage categories, rather than geographic area. All vessels and processors assigned to Tiers 3 and 4 (i.e. that require less than 100% coverage) would participate in the new program throughout Alaska and pay an ex-vessel value based fee. Vessels would be required to carry an observer when one is provided by NMFS. In general, this alternative would apply to all halibut vessels, all groundfish catcher vessels <125' LOA, and all non-AFA shoreside processors. All vessels and processors assigned to Tiers 1 and 2 (100% or greater coverage) would continue to operate under the current "pay-as-you-go" system throughout Alaska.

Alternative 5. **Comprehensive restructuring alternative. Restructured program for all groundfish and halibut fisheries off Alaska.** This alternative would establish a new fee-based groundfish observer program within which NMFS has a direct contract with observer providers for all GOA and BSAI groundfish and halibut vessels. Under this alternative, vessels with 100% or greater coverage requirements would pay a daily observer fee and vessels with coverage requirements of less than 100% would pay an ex-vessel value based fee.

Table ES-1 provides a summary of the vessels and processors included under each restructuring alternative. Note that Alternative 2 (preferred alternative) represents a Federal regulatory amendment, while Alternatives 3 – 5 represent both regulatory amendments and amendments to the Fishery Management Plans (FMPs) for Groundfish of the BSAI and GOA management areas.

Table ES-1 Vessels and processors included under Alternatives 3 - 5

Area	*Vessel/Processor class*	*Alt. 3 (GOA-based)*	*Alt.4 (Tiers 3 and 4 only)*	*Alt. 5 (Comprehensive Alt.)*
GOA	Halibut vessels	Yes	Yes	Yes
	Groundfish CVs (all gears and sizes classes)	Yes	Yes	Yes
	Non-AFA inshore processors	Yes	Yes	Yes
	Pot CPs	Yes	Yes	Yes
	*Trawl CPs < 125'	Yes		Yes
	*Hook-and-line CPs <125'	Yes		Yes
	Trawl CPs ≥ 125'	Yes		Yes
	Hook-and-line CPs ≥ 125'	Yes		
BSAI	Halibut vessels	Yes	Yes	Yes
	Non-AFA CVs (all gears and size classes)		Yes	Yes
	Pot CPs		Yes	Yes
	AFA CVs <125'		Yes	Yes
	non-AFA inshore processors		Yes	Yes
	AFA CVs ≥ 125'			Yes
	*Non-AFA trawl & hook-and-line CPs <125'			Yes
	Non-AFA trawl & hook-and-line CPs ≥125'			Yes
	AFA inshore processors			Yes
	AFA motherships			Yes
	AFA CPs			Yes
	CDQ vessels and processors		Tier 3 and 4 vessels and processors are also included when fishing CDQ.	Yes

*Note that NMFS currently recommends placing hook-and-line and trawl CPs <125' (with the exception of AFA and CDQ CPs) in Tier 2 (100% coverage). These fleets could also be placed in Tier 3 and NMFS could choose to distribute 100% coverage on these vessels under an ex-vessel value fee.

Elements necessary under restructuring Alternatives 3 - 5

Several elements are necessary under a restructured program proposed under Alternatives 3 – 5. Much of the analysis describes and evaluates the necessary elements under the alternatives considered for a restructured program, as those alternatives were the primary focus prior to the recognition that Alternative 2 is the only viable action alternative in the short-term. The following sections summarize the primary decision points related to Alternatives 3 – 5.

Coverage requirements: How would coverage levels be determined?

The issue of coverage levels arises with the implementation of a program that rescinds the current coverage levels based on vessel length and processing volume, and replaces them with one in which

NMFS has more flexibility to decide when and where to deploy observers. This is because some type of organizational structure is still necessary to categorize vessels and processors for the purpose of determining coverage levels. The establishment of uniform criteria for determining coverage requirements will also assist the Council in determining what levels of coverage are necessary when new management programs are proposed. As a replacement for the existing vessel length based categories, the following four tier system of coverage is proposed. Vessels and processors would be placed into one of the four coverage tiers based on their fishery and operating mode. The purpose of designing this four tier coverage system is to establish clear and uniform criteria for determining what level of coverage is required in each fishery.

The determination of which fishery sectors are placed into which tier is a decision point only under Alternatives 3 - 5. The tier levels are not as relevant to Alternative 3, as all GOA vessels and processors and all halibut vessels would be included under the new program and pay the same ex-vessel value based fee, regardless of coverage level. Under Alternative 4, the tier level dictates which fishery sector is included in the newly restructured program, and under Alternative 5, the tier level determines whether the fishery sector pays an ex-vessel value based fee or a daily observer fee.

The following is a description of the four proposed coverage tiers:

- **Tier 1 fisheries (200% coverage).** These are fisheries in which two observers must be present so that observers are available to sample every haul on processors or delivery on vessels. Tier 1 fisheries are generally those in which observers are directly involved in the accounting of individual vessel catch or bycatch quotas.

- **Tier 2 fisheries (100% coverage).** These are fisheries in which one observer is deployed on each vessel and processor. In contrast to Tier 1, it is recognized that the observer will likely be unable to sample all hauls or deliveries due to workload constraints and will, therefore, follow random sampling procedures so that the vessel or processor will not know in advance which hauls or deliveries will be sampled. Under certain circumstances, vessels that would otherwise qualify for Tier 1 coverage could operate with a single observer in Tier 2 if they are operating under restricted hours or an alternative monitoring plan approved by NMFS in which alternate technologies are used to monitor scales when the observer is absent.

- **Tier 3 fisheries (regular coverage generally less than 100%).** *(This tier replaces the old 30% coverage requirement).* These are fisheries in which NMFS is dependent on observer coverage for inseason management but in which 100% coverage on every vessel is unnecessary because observer data is aggregated across a larger fleet. Vessels participating in Tier 3 fisheries can expect to receive coverage on a regular basis and will be required to carry observers when requested to do so by NMFS. However, the actual coverage that each vessel receives will depend on the coverage priorities established by NMFS and the sampling plan developed for the individual fishery in which the vessel is participating. The actual coverage a particular vessel or processor receives could range from zero to 100%, but on a fleet-wide basis, coverage levels are more likely to average closer to 30%.

- **Tier 4 fisheries (previously unobserved).** These are fisheries in which NMFS is not currently dependent on observer data for inseason management. At the outset of the program, coverage levels in Tier 4 fisheries are expected to be low, and used for special data needs and research rather than inseason management. Halibut vessels, jig vessels, and groundfish vessels <60' would be assigned to Tier 4. In the initial years of a restructured program, NMFS could deploy observers on these vessels when necessary to collect needed baseline data or to respond to

specific data needs, but would not deploy observers on a regular basis to collect inseason management data. Vessels in Tier 4 would be required to carry observers when requested to do so by NMFS but such requests are unlikely to occur on a regular basis during the outset of the program. As NMFS and industry gain experience with the deployment of observers in small-vessel fisheries, the dividing line between Tiers 3 and 4 may become less meaningful.

Under the four tier structure, coverage levels would remain unchanged from the status quo for most vessels and processors that currently have 100% or 200% coverage requirements. The biggest change would occur for vessels that currently have 30% coverage requirements or no coverage requirements. Under the four tier structure, most current 30% vessels would fall into Tier 3 and can expect regular coverage at a level less than 100%. Most vessels that currently have no coverage requirements would fall into Tier 4 and be required to carry an observer when requested, but can expect such coverage to be a relatively rare occurrence, especially during the initial years of the program.

This analysis does not propose an annual mechanism through which a fishery would change from one tier to another if it is determined that coverage levels need to be increased or decreased. Currently, all coverage levels are established in regulation and any changes to existing coverage requirements must be implemented through notice and comment rulemaking. **Based on NOAA GC guidance, this analysis assumes that formal rulemaking would also be necessary to change fisheries from one tier to another under the new system.** Agency flexibility would still be substantially increased through the proposed system, however, as the coverage levels for fisheries within Tiers 3 and 4 could be shifted and modified on an inseason basis. Table ES-2 provides a summary of the proposed tier classifications for each class of vessel and processor under Alternatives 3 - 5.

Table ES-2 Proposed tier levels for vessels and processors under Alternatives 3 - 5

Vessel/processor/fishery	*Current coverage requirements*	*Proposed tier classification*
AFA CPs	200% coverage	Tier 1
CDQ CPs	200% coverage	Tier 1
AFA motherships	200% coverage	Tier 1
AFA inshore processors	1 observer for each 12 hour period (i.e. 2 observers if plant operates more than 12 hours/day)	Tier 1
Non-AFA trawl CP vessels ≥125' in the BSAI	100% coverage[1]	Tier 2
CPs fishing for Atka mackerel in the Aleutian Islands Subarea	200% coverage	Tier 1
Non-AFA trawl CP vessels <125' in the BSAI	30% coverage[2]	Tier 2
Non-AFA trawl CP vessels ≥125' in the GOA	100% coverage	Tier 2
CVs >60' and pot CPs fishing CDQ	100% coverage	Tier 2
Non-AFA Trawl H&G vessels <125' in the GOA	30% coverage	Tier 2
Non-AFA inshore processors	0%, 30%, or 100% based on processing volume	Tier 3
Trawl CVs ≥125' (Including CDQ and AFA)	100% coverage	Tier 2[3]
Trawl CVs 60'-125' (Including CDQ and AFA)	30% coverage	Tier 3
Hook-and-line CPs ≥125'	100% coverage	Tier 2
Hook-and-line CPs 60'-125'	30% coverage	Tier 2
Hook-and-line CVs 60'-125'	30% coverage	Tier 3
Hook-and-line CVs ≥125'	100% coverage	Tier 3
Pot vessels ≥60'	30% coverage	Tier 3
Halibut vessels	no coverage	Tier 4
Jig vessels (all sizes)	no coverage or 30% depending on vessel length	Tier 4
Groundfish vessels <60'	no coverage	Tier 4

[1]The final rule for BSAI Am. 79 was published on April 6, 2006 (71 FR 17362). This rule requires at least two level 2 observers each day a non-AFA trawl CP ≥125' is harvesting or processing groundfish in the BSAI. NMFS may authorize the vessel to carry only one lead level 2 under an alternative processing plan. This rule will be effective January 20, 2008.
[2]Note: 200% coverage is proposed under BSAI Amendment 80. Final Council action is scheduled for November 2007.
[3]While trawl CVs ≥125' are currently proposed to be in Tier 2 (100% coverage requirement), NMFS notes that assignment to Tier 3 may be possible in the future combined with a video monitoring requirement.

Funding mechanism

All of the restructuring alternatives (Alternatives 3 – 5) contained within this analysis propose to fund the new observer program through some combination of user fees and direct Federal funding. Federal funding may be necessary to get the program started, fund some direct coverage costs if industry fees are inadequate, and fund agency costs associated with implementing and maintaining the program. Therefore, any decisions related to the type of user fee would not preclude the possibility of obtaining Federal funding to cover observer deployment costs. There are several decisions related to the funding mechanism under each restructuring alternative. Section 2.2.3 of the analysis outlines the primary issues and concepts relevant to the funding mechanism:

- Type of fee (ex-vessel value or daily observer fee)
- Uniform or variable fees
- Supplemental fee options for special programs
- Initial fee percentage
- Process for adjusting fee percentages
- Fee collection mechanism
- Start-up funding and Federal funds
- Restriction on the use of fee proceeds

Type of user fee

Two primary types of fee programs are proposed under the restructuring alternatives:

1. **Ex-vessel value fee:** An ex-vessel value fee is proposed for Alternatives 3 and 4, and to fund coverage in Tier 3 and 4 fisheries under Alternative 5. Fees based on the ex-vessel value of landed catch are the most common type of fee currently used in the North Pacific. Under the ex-vessel value fee program, the fee amount would be paid by both vessels and processors. Catcher processors that both harvest and process their catch would pay both the harvesting and processing portion of the fee, meaning that their fee amount would be double that charged to catcher vessels or processors. This is the same approach used under the original research plan in the early 1990s.

2. **Daily coverage fee:** A daily observer fee is proposed to fund coverage for Tier 1 and 2 fisheries under Alternative 5. 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. Such a fee could be designed to exactly match the direct costs of observer coverage, as is currently the case with the existing pay-as-you-go program, the fee could be set at a lower level than actual coverage costs if Federal funds are available to support the program. The fee could also be set to represent an average over several years, meaning the fee would likely be higher than actual costs in some years and lower in others. Further details are provided in Section 2.2.3.

Setting the initial fee level

If Alternative 3, 4, or 5 is selected, one of the most important decision points for the Council is setting an initial fee percentage for those vessels/fisheries that will operate under an ex-vessel value based fee. The fee percentage (and the level of Federal funding) would determine the program's budget and would directly affect coverage levels in the fisheries covered by the program and costs paid by industry. The issue of how much coverage is necessary or optimal to manage particular groundfish and halibut fisheries is complex and goes beyond the scope of this analysis. The process proposed to determine coverage levels in fisheries with less than 100% coverage requirements (Tiers 3 and 4) is described in Chapter 4.

Most of the fisheries in question are currently evolving, as a rationalization program is under development for the GOA groundfish fisheries and cooperative management proposals are under development for the catcher processor sector in the BSAI flatfish fisheries. Thus, future coverage needs are unknown. It is beyond the scope of this analysis to determine what levels of coverage would ultimately be necessary to implement the various rationalization and cooperative management proposals that are currently under development, as this amendment is intended to establish a new program structure overall for observer procurement and deployment in the future. For this reason, this analysis is limited to considering the fee percentages necessary to maintain existing levels of coverage overall (with the flexibility to shift coverage among the Tier 3 and 4 fisheries, as necessary) and provide resources to expand the program into fisheries that currently have no coverage (the halibut and <60' groundfish fleets) in the absence of any direct Federal funding. To the extent that Federal funding becomes available, fee percentages could be reduced or coverage increased. **Therefore, three fee percentage levels (upper, middle, and lower endpoints) are proposed for Council consideration under each restructuring alternative in Chapter 4.**

Option 1 (lower endpoint fee): Maintain the existing number of deployment days. Under this option, the fee percentage would be set at the level necessary to provide an equivalent number of coverage days to that currently provided under the status quo. NMFS would have roughly the same number of observers to work with as are available under the status quo, but would have the flexibility to deploy these observers in a more effective and efficient fashion to maximize the utility of the data collected. Under this option, any deployment of observers in the halibut fishery and on groundfish vessels under 60' would come at the expense of existing coverage levels on shoreside processors and groundfish vessels ≥60'. Under all of the action alternatives, the average costs of observer coverage for vessels that currently carry observers would go down under this endpoint, because the status quo number of coverage days would be supported by revenues from a wider fleet than under the status quo.

Option 2 (mid-point fee): Establish a fee percentage that accommodates 100% coverage for trawl and hook-and-line CPs <125' while maintaining the existing number of observer days for the remaining fleets covered by the program. Under this option, all trawl and hook-and-line CPs <125' would be assessed an ex-vessel value fee, but with the objective of generating sufficient revenue to raise their coverage level to 100%. Therefore, fees are increased relative to Option 1 to accommodate the increase in coverage without affecting coverage levels in other fisheries. This option applies to Alternative 3, and would only apply to Alternatives 4 and 5 if the Council decides to include CPs <125' in Tier 3. If the Council decides to assign CPs <125' to Tier 2 (as recommended by NMFS) under Alternatives 4 or 5, then the mid-point fee percentage is not applicable. In this case, CPs <125' would operate under the existing program (Alt. 4), or pay a daily fishing fee (Alt. 5), rather than an ex-vessel value fee.

Option 3 (upper endpoint fee): Establish a fee percentage that is self-supporting at current coverage levels for sectors that currently have coverage and apply the same fee percentage to all new fisheries into which the program expands. Under this option, the fee percentage would be set at a level necessary for fee revenues from the currently covered sectors of the industry (groundfish vessels ≥60' and shoreside processors) to fund the current number of deployment days in those sectors. Each new sector that is not currently covered that comes into the program will generate additional fee revenues, so that expansion of coverage into the <60' groundfish and halibut fleets would not necessarily come at the expense of existing coverage for vessels ≥60'. Because the average daily revenues generated by halibut vessels and groundfish vessels <60' are lower than the average daily revenues generated by groundfish vessels ≥60', and because observer costs per deployment day are generally higher for small vessels that operate out of more remote ports, fee revenues generated by halibut vessels and groundfish vessels <60' may not be adequate to extend coverage to those vessels at levels currently in effect for groundfish vessels ≥60'.

Table ES-3 provides estimates of the low, mid, and high fee endpoints for each action alternative. **Note that the ex-vessel value based fees provided in the table are only applicable to those vessels that are required to pay an ex-vessel value based fee in each of the alternatives.** Thus, under Alternative 3, all GOA vessels and processors, and halibut vessels in all areas, would pay the fee. Groundfish vessels and processors in the BSAI would continue operating in the existing pay-as-you-go system. Under Alternative 4, only vessels in sectors included in Tiers 3 and 4 in both the GOA and the BSAI would pay the fee. Vessels selected for inclusion in Tiers 1 and 2 in both the GOA and the BSAI would continue under the existing pay-as-you-go system. Finally, under Alternative 5, only vessels in sectors in Tiers 3 and 4, in both the GOA and the BSAI, would pay the fee shown in Table ES-3. Vessels selected for inclusion in Tiers 1 and 2 in both the GOA and the BSAI would pay a daily observer fee similar to the current pay-as-you-go system, except it would be paid directly to NMFS.

The estimates in Table ES-3 are based on current estimates of daily coverage costs. The fee percentages vary substantially among alternatives because as each group of vessels is included in the program, they bring with them both a revenue base, in terms of the ex-vessel value of their landings, and coverage needs. The coverage needs relative to the revenue base for each group of vessels varies substantially.

Note that the fee percentages identified in Table ES-3 would be charged to both vessels and processors. Catcher processors that both harvest and process groundfish or halibut would pay both a harvesting and processing fee, meaning that their total ex-vessel value fee assessment would be double the percentages identified in Table ES-3.

Table ES-3 Estimated observer days, coverage cost, and fee percentages for low, mid, and high endpoint fee options based on 2000-2003 average coverage days and ex-vessel revenues

Alternative	Observer days			Observer cost (millions)			Estimated fee %		
	Low	Mid	High	Low	Mid	High	Low	Mid	High
Alt. 3 (GOA-based)	5,288	6,525	12,340	$1.88	$2.32	$4.38	**0.49%**	**0.60%**	**1.15%**
Alt 4 & 5 (Tiers 3 and 4 w/o CPs <125')	10,025	N/A	18,628	$3.56	N/A	$6.61	**0.71%**	**N/A**	**1.32%**
Alt. 4 &5 (Tiers 3 and 4 with CPs <125')	12,680	17,660	22,066	$4.50	$6.27	$7.83	**0.82%**	**1.15%**	**1.44%**

Finally, there are two major issues discussed in the analysis for which there are no decision points at this time: 1) technological requirements, and 2) the contracting process.

Technological requirements: Electronic fishing logs, electronic reporting requirements, and VMS

The analysis contains extensive discussions of a variety of technological requirements that would facilitate implementation of a restructured observer program under Alternatives 3 - 5. These include:

- **Electronic fishing logbooks** so observed and unobserved vessels can report fishing activity electronically from the fishing grounds.

- **Revised electronic reporting requirements** for processors that will facilitate the collection of ex-vessel fees.
- **VMS requirements** to enable NMFS to monitor and enforce compliance with check-in/check-out requirements.

While the above technological requirements may represent decision points for the Council at a future date, they are not currently presented as decision points in this analysis. This is primarily because all three types of technological requirements are part of larger program initiatives that will be developed on separate tracks. Therefore, this analysis does not propose making decisions related to these issues at this time. This document only represents decision points relating to extending the current program.

Contracting process

Under all of the alternatives considered, private contractors would continue to be the source of observers deployed under the restructured program. The main difference under the restructuring Alternatives 3 – 5 is that NMFS would be the entity responsible for contracting for observer coverage, rather than the vessel owner. Complicated regulations and procedures already govern the Federal contracting process. Therefore, this analysis does not examine alternatives to the process that would govern direct Federal contracting for observer services. The existing Federal contracting process is described in Section 4.8, to provide the Council and the public with an understanding of how the program would operate, should one of the restructuring alternatives be adopted. This section also explores the role of contractors under a new program, and whether single or multiple contracts, and single or multiple contractors, are preferable.

Several different contract modules are possible, but are difficult to develop until the scope of work is defined. In essence, there are several ways to accomplish any task and distribute work. Contracting is flexible and will accommodate various desired scenarios. For example, the work can be broken into components regionally (BSAI or GOA), by gear type, or by vessel size class. Various combinations are possible. It is also possible to develop different types of work modules. One module could be for overall coverage planning and another for the provision of observers to obtain that coverage. Once the scope of work and funding are identified, NMFS can further develop alternative contract modules for consideration.

Because Federal contracting must follow well-established procurement processes, there are no Council decisions related to the contracting process in this amendment. Rather, NMFS will keep the public and the Council informed of the process as the scope of work becomes better defined.

Decision points for Council consideration

The primary decision point for the Council in this amendment was to select a final preferred alternative. Three alternative approaches (Alternatives 3 – 5) for restructuring the Observer Program are analyzed in addition to the no action alternative (Alternative 1) and an alternative to extend the current program beyond the December 31, 2007 expiration date (Alternative 2). Alternatives 3 – 5 are included here to provide context for the decision making process.

The Council selected Alternative 2 as its final preferred alternative in June 2006, for various reasons related to Congressional authority and cost uncertainties. However, the Council intends to initiate a new amendment with restructuring alternatives at such time as: (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, it is anticipated that the restructuring alternatives in this analysis will be used as a starting point in a future amendment package, once the above issues are resolved to the extent feasible to provide a comprehensive analysis.

While no additional decision points are associated with Alternative 2, each of the restructuring alternatives (Alternatives 3 – 5) has several associated decision points. These include: assignment of vessel classes and fisheries into tier levels; the initial fee percentage; use of variable or fixed fees; use of standardized or actual prices; and restrictions on the use of fee proceeds. These are discussed in the analysis for background information and to provide context relevant to the Council's decision not to proceed with Alternatives 3 – 5 at this time, but are not related to the proposed action (Alternative 2).

Conclusions

The benefits and costs of the proposed action cannot be compared in a quantitative manner, because the actual costs of the proposed restructuring alternatives (Alternatives 3 – 5) cannot be determined until a variety of labor issues are resolved (see Section 4.4). Furthermore, the benefits of the proposed action are qualitative or distributional in nature (e.g. improved data quality, sharing of costs). Nevertheless, a variety of qualitative conclusions can be drawn with respect to the benefits and costs of the alternatives. While the public should focus on the decision points related to Alternatives 1 and 2, these qualitative conclusions are included here for information purposes.

Alternative 1, the no action alternative, would effectively result in the sunset of the North Pacific Observer Program on December 31, 2007, should no action be taken prior to that date. Adoption of the no action alternative would result in significant costs to both industry and the environment. These costs are discussed in detail in Section 4.11.1. Without data collected by observers, NMFS would be forced to adopt a much more conservative approach towards managing the groundfish fisheries of the GOA and BSAI. Such an approach could, in the absence of observer data on groundfish catch and bycatch, include, [1] closing fisheries much earlier to prevent exceeding Total Allowable Catch (TAC) and Prohibited Species Catch (PSC) limits, and/or [2] using more conservative population and stock assessment models to generate Allowable Biological Catch (ABC) and TAC recommendations. Given that the total cost of the observer program is currently about 1.4% of ex-vessel value in the GOA and BSAI, these types of precautionary management measures could cost the industry many times more in lost fishing opportunities and foregone catch than the cost of the observer program.

In addition, failure to maintain a groundfish observer program in the North Pacific would violate the terms of a variety of statutes, including the Endangered Species Act, under which observer coverage has been mandated as part of reasonable and prudent measures (RPMs). RPMs are non-discretionary measures under current Biological Opinions that are prescribed under the incidental take statements for endangered marine mammals, salmon, and sea birds. Absent observer coverage, many of the groundfish fisheries could be found to place one or more Endangered Species Act (ESA) listed species in jeopardy and could be subject to closure under the ESA. The costs of widespread Endangered Species Act-mandated fishery closures across the North Pacific would likely exceed the costs of maintaining an observer program by orders of magnitude.

Alternative 2 (<u>Council preferred alternative</u>) would result in an extension of the existing program in which vessels and processors must contract directly for observer services in order to meet coverage requirements in Federal regulation. Alternative 2 represents an amendment to Federal regulations at 50 CFR 679.50, to remove the expiration date of December 31, 2007.

Alternative 2 is likely the only viable short-term alternative at this point, given the unresolved questions about labor costs under a restructured program and, until recently, the lack of statutory authority to implement the multiple funding mechanisms contained in Alternatives 3 through 5. This alternative would not achieve some of the objectives outlined in the problem statement such as improvements to data quality and the reduction of disproportionate observer costs born by many small vessel operators. It also would not likely advance the data quality objectives contained in the preferred alternative of the

Programmatic Supplemental Environmental Impact Statement prepared to evaluate the Alaska groundfish fisheries (NMFS 2004).

However, Alternative 2 would continue to provide the North Pacific groundfish fisheries with the benefits of the observer program, without which the costs identified under Alternative 1 above would accrue. The benefits of observer coverage to the government, industry, and public are substantial. Through observer coverage, NMFS obtains accurate information upon which to base management and conservation decisions, which may increase economic opportunities for industry. The public also receives unbiased information about the use of a public resource that could otherwise occur outside the pubic view. These benefits include:

- **Estimates of takes of protected species.** Marine mammals and sea birds are protected by a variety of statutes aimed at minimizing potential negative interaction with fisheries and other anthropogenic activities. Chief among these statutes are the Marine Mammal Protection Act and the ESA. Observers are necessary to collect data on marine mammal and seabird interactions with the fishing fleet to insure that protected species are not adversely impacted by fishing activity.

- **Prohibited species catch.** Many groundfish fisheries in the North Pacific are limited by bycatch of crab, salmon, halibut, and herring, in addition to harvest limits on the target species. Onboard observers are currently the only reliable method through which prohibited species catch data can be collected in most North Pacific fisheries. Without observers, the catch of prohibited species could not be managed in an effective manner.

- **Estimates of discards of fishery resources.** Catches brought aboard fishing vessels are mainly sorted for marketable species and sizes, with the unwanted or non-marketable portion of the catch discarded at sea, if allowed. In some fisheries, large catches of undersized commercial species also occur and result in substantial quantities of the species catch being discarded. Accurate stock assessments require that all fishing mortality, either landings or discards, be measured. Measuring the effects of fishing activities on the ecosystem also requires information on catches of all species, even if they are discarded. Observer sampling provides the most reliable method currently available of acquiring data on the quantity and species composition of discards, as well as information on the specific reasons why species are discarded (e.g., size, no market for the species, fish damaged, etc.). With these data, it is possible to more completely understand the effects of fishing and to estimate the potential biological and economic benefits of changes in conservation and management measures (e.g., minimum legal sizes, trip quotas for individual species, etc.).

Management of quota-based rationalization programs. Observers are an essential element of the management of several quota-based rationalization programs in the North Pacific, including the AFA pollock fishery, which is subject to individual cooperative quotas, and the CDQ fisheries, which are subject to individual CDQ allocations. Without the haul-by-haul data collected by observers on vessels and at processing facilities in the AFA and CDQ fisheries, NMFS would be unable to manage the individual vessel quotas upon which the functioning of AFA cooperatives and CDQ groups is based.

- **Biological catch sampling.** Observers aboard fishing vessels also collect spatially explicit biological samples of the catch. Size and age samples and other observations taken at sea (e.g., sexual maturity) are often not obtainable by sampling dockside landings, or if so, samples may be biased towards legal sizes or economically valuable species. Sampling of discards permit the estimation of discard size and age composition, which often differs considerably from that of

landings. In most cases, discards of marketable species are of small fish, although damaged legal-sized fish may also be discarded. Because observer sampling occurs throughout the year, the program affords an opportunity to collect tissue samples with which to study seasonal cycles of sexual maturity and growth. Equivalent samples may be difficult to obtain during annual survey cruises that occur at only one time during the year.

- **Design and monitoring of gear.** Reduction in discards of finfish and protected species has been attempted using a variety of methods, including the development of more selective fishing gear. The development and deployment of such gear requires testing (i.e., to ensure the gear can be safely and efficiently used) and validation (i.e., to ensure this gear is having the intended effect). Observer data can provide important information about the use and effectiveness of fishing gear.

- **Monitoring of experimental fisheries.** Experimental fisheries have frequently been authorized in the North Pacific when industry has sought to test fishing gear under controlled conditions, or develop fisheries that conflict with current regulations. Observer data gathered during experimental fisheries provides important information on the effectiveness of the gear or fishing strategy being tested.

- **Gear performance and characteristics.** To support research, observers that are deployed aboard commercial vessels can be requested to make detailed measurements of various attributes of the fishing gear, including how it is rigged and deployed. These measurements can be important for two reasons. First, by noting variables such as mesh size, number of hooks, gangion length, trawl tow duration, etc., in relation to the catch attributes (quantity, species composition, size distribution) it is possible to conduct statistical analyses of the factors that result in high (or low) rates of discard, species mix, changes in catch rate, etc. Second, gear performance observations, when collected over time, can be used to better calibrate catch-per-unit-effort abundance measures. For example, if the average size of nets, duration of tow, ground-cable length, etc., increase over time, these may have a direct effect on catch per day, even for the same sized vessels. Given sufficient information, these factors can be included in research assessment analyses to provide a more complete and accurate picture of fishing intensity and effectiveness.

- **Communication with fishermen.** Observer programs provide a channel for two-way communication between fishermen and fishery scientists and managers. The program is an important link between NMFS and fishermen. Ideas, complaints, and information communicated between observers, captain, and crew are a valuable source of information for all parties.

In summary, Alternative 2 would not achieve some of the secondary objectives identified in the problem statement. However, this alternative is the only viable alternative at this point in time, due to existing obstacles which prevent a comprehensive analysis of potential costs under the FLSA, and, until recently (see Chapter 1), a lack of statutory authority for a comprehensive cost recovery program. **Thus, Alternative 2 would achieve the primary objective of the problem statement, that is, to maintain a groundfish Observer Program beyond the current expiration date of December 31, 2007.**

Alternatives 3 and 4 present two distinctly different approaches to partial restructuring of the Observer Program. Both of these alternatives would require a Federal regulatory amendment and amendments to the FMPs for groundfish in the BSAI and GOA. The scope of Alternative 3 is based on geographic area. Under Alternative 3, all groundfish fisheries in the GOA and all halibut fisheries in and off Alaska would be covered by the new program, in which vessels would pay an ex-vessel value based fee and NMFS would directly contract for observer services. By contrast, Alternative 4 is based on

coverage levels irrespective of geography. Under Alternative 4, all vessels and processors assigned to Tiers 3 and 4 (less than 100% coverage) would be covered by the new program, and all vessels and processors assigned to Tiers 1 and 2 (100% or greater coverage) would be unaffected and continue to operate under the existing pay-as-you-go system.

While neither Alternative 3 nor 4 would completely address all of the issues in the problem statement, because the largest portion of the observer program would remain unchanged, it is possible to draw some conclusions about the differences between these two approaches. From an operational standpoint, Alternative 3 is likely superior to Alternative 4, because it would allow NMFS to develop scientifically-based sampling plans for specific fisheries in the GOA, and to implement them with single contracts that would govern all coverage in each fishery. Under Alternative 4, NMFS would only have direct control over deployments on Tier 3 and 4 vessels in each fishery, and would be less able to develop efficient approaches to the deployment and rotation of observers within a fishery. However, Alternative 4 would better address concerns about the disproportionate costs faced by the operators of smaller vessels, because it would extend the program to all Tier 3 and 4 fisheries in the BSAI as well as the GOA. Alternatives 3 and 4 therefore represent a tradeoff between developing a more unified and scientific-based sampling program for the GOA, as a whole, and addressing the problem of disproportionate costs for a wider range of vessels in the BSAI and GOA. Furthermore, both Alternatives 3 and 4 raise a variety of issues associated with the administration of two separate programs. Attempting to administer two separate programs could generate a variety of operational and data quality issues, as discussed in detail in Section 4.9.

Note that a comprehensive analysis of Alternative 3 or 4 is not possible at this time, due to the inability to adequately estimate the costs of a restructured program under the Fair Labor Standards Act and Service Contract Act. Under Alternative 3, only groundfish fisheries in the GOA and all halibut fisheries in and off Alaska would be assessed an ex-vessel value based fee. Under Alternative 4, all vessels and processors assigned to tiers with less than 100% coverage would be assessed an ex-vessel value based fee. All vessels and processors not included under the new program would continue to operate under the existing pay-as-you-go system.

Alternative 5, the comprehensive alternative, is the only proposed alternative that would restructure the entire observer program and avoid possible complications associated with the management of two separate programs in the GOA and BSAI. Like Alternatives 3 and 4, this alternative would require a Federal regulatory amendment and amendments to the FMPs for groundfish in the BSAI and GOA. The primary disadvantage to the approach under Alternative 5 is the scope. A comprehensive restructuring of the entire North Pacific Groundfish Observer Program is a large and complex undertaking, and there are likely to be more short-term complications and disruptions to observers, observer providers, and the fishing industry if the entire program is restructured at once. Alternatives 3 and 4 would allow NMFS to get a new program up and running in most smaller-scale fisheries of the GOA that are less dependent on observer coverage, without initially affecting the large-scale fisheries in the BSAI where most observers are currently deployed. However, operational difficulties introduced by managing simultaneous programs may offset some of the benefits of restructuring smaller scale fisheries initially.

Note that a comprehensive analysis of Alternative 5 is also not possible at this time, for the same reasons described under Alternatives 3 and 4. The cost associated with Alternative 5 cannot be adequately estimated at this time, due to unresolved questions regarding the application of both Fair Labor Standards Act and Service Contract Act provisions. Under Alternative 5, some vessels (with 100% or greater coverage requirements) would pay a daily observer fee and some vessels (with coverage requirements less than 100%) would pay an ex-vessel value based fee.

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List of Acronyms

ABC	Acceptable Biological Catch
ADF&G	Alaska Department of Fish and Game
AFA	American Fisheries Act
AFMA	Australian Fisheries Management Authority
AFSC	Alaska Fisheries Science Center
AFD-UIW	Alaska Fisheries Division of the United Industrial Workers
AGO	NOAA Acquisition and Grants Office
AP	Advisory Panel
BiOp	Biological Opinion
BSAI	Bering Sea and Aleutian Islands Management Area
CBA	Collective Bargaining Agreement
CEQ	Council on Environmental Quality
CEY	Constant Exploitation Yield
CDQ	Community Development Quota
CH	Critical habitat
CP	Catcher processor
CV	Catcher vessel
DOC	Department of Commerce
DOL	Department of Labor
EA	Environmental Assessment
EEZ	Exclusive Economic Zone
EFH	Essential Fish Habitat
EIS	Environmental Impact Statement
ESA	Endangered Species Act
ESU	Evolutionary Significant Unit
FLSA	Fair Labor Standards Act
FMP	Fishery Management Plan
FONSI	Finding of no significant impact
GCAK	NOAA General Counsel, Alaska Region
GHL	Guideline Harvest Level
GOA	Gulf of Alaska Management Area
GPS	Global Positioning System
GRS	Groundfish Retention Standard
HAPC	Habitat Area of Particular Concern
H&G	Head and gut processing
IDIQ	Indefinite Delivery/Indefinite Quantity (contract type)
IPHC	International Pacific Halibut Commission
IRFA	Initial Regulatory Flexibility Act
ITS	Incidental Take Statement
JPA	Joint Partnership Agreement
LASAF	Limited Access System Administration Fund
LOA	Length overall
MSA	Magnuson-Stevens Fishery Conservation and Management Act
MSST	Minimum Stock Size Threshold
mt	metric ton
NEPA	National Environmental Policy Act
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration

NPFMC	North Pacific Fishery Management Council
OAC	Observer Advisory Committee
OGC	Office of General Counsel
PSC	Prohibited Species Catch
PSEIS	Programmatic Supplemental Environmental Impact Statement
PSMFC	Pacific States Marine Fisheries Commission
RIR	Regulatory Impact Review
SAFE	Stock Assessment and Fishery Evaluation Report
SCA	Service Contract Act
SPELR	Shoreside Processor Electronic Logbook Report
SSC	Scientific and Statistical Committee
TAC	Total Allowable Catch
USFWS	U.S. Fish and Wildlife Service
VMS	Vessel Monitoring System

Chapter 1 Purpose and Need

1.1 Introduction

The groundfish fisheries in the Exclusive Economic Zone (EEZ) off Alaska are managed by the National Marine Fisheries Service (NMFS) under the authority of the Magnuson-Stevens Fishery Conservation and Management Act (MSA). Under the authority of the MSA, the North Pacific Fishery Management Council (Council) developed Fishery Management Plans (FMPs) for the groundfish fisheries of the Gulf of Alaska management area (GOA) and Bering Sea Aleutian Islands management area (BSAI). These FMPs were approved by the Secretary of Commerce and became effective in 1978 and 1982, respectively. The FMPs for the GOA and BSAI groundfish fisheries have each been amended more than 50 times. The Pacific halibut fishery off Alaska is managed by NMFS under the authority of the Northern Pacific Halibut Act of 1982, and in coordination with annual fishery management measures adopted by the International Pacific Halibut Commission (IPHC) under the Convention between the United States and Canada for the Preservation of the Halibut Fishery of the Northern Pacific Ocean and Bering Sea.

This Environmental Assessment/Regulatory Impact Review/Final Regulatory Flexibility Analysis (EA/RIR/FRFA) is intended to provide decision-makers and the public with an evaluation of the environmental and economic effects of extending or restructuring the North Pacific Groundfish Observer Program (Observer Program). Extension of the current program requires a Federal regulatory amendment; restructuring of the current program would require amendments to the Fishery Management Plan for Groundfish of the Bering Sea and Aleutian Islands Management Area (BSAI FMP) and the Fishery Management Plan for Groundfish of the Gulf of Alaska Management Area (GOA FMP). The proposed action was intended to address a variety of longstanding issues associated with the existing system of observer procurement and deployment, and to ensure that regulations authorizing the Observer Program are effective beyond the current sunset date of December 31, 2007. However, uncontrollable delays in obtaining critical data and policy interpretations, fundamentally necessary for the evaluation of the suite of "restructuring" alternatives, as well as insurmountable legal barriers (i.e., delays in acquiring Congressional authority to make these proposed changes), effectively rendered Alternatives 3 through 5 inaccessible to the Council within the timeframe available (i.e., prior to the December 31, 2007 sunset date).

The National Environmental Policy Act of 1969 (NEPA), Executive Order 12866 (E.O. 12866), and the Regulatory Flexibility Act (RFA), require a description of the purpose and need for the proposed action, as well as alternative actions which may address the problem. This information is included in Chapter 1 and Chapter 2 of this document. Chapter 3 contains information on the impacts of the alternatives on the affected environment, as required by NEPA. Impacts on endangered species and marine mammals are specifically addressed. Chapter 4 contains the Regulatory Impact Review (RIR), which addresses the requirements of E. O. 12866 and describes the economic effects of the alternatives. Chapter 5 addresses the specific requirements of the MSA, the RFA, and other applicable laws. Chapters 6, 7, and 8 list the preparers, persons consulted, and references, respectively.

The analysis examines five alternatives, one of which is the no action alternative, and one of which would extend the current observer program by removing the expiration date in regulations. The other three alternatives would create a new system for procuring and deploying observers in the groundfish and halibut fisheries of the North Pacific. All three of the restructuring alternatives would replace the current pay-as-you-go system (where vessels contract directly with observer providers to meet coverage levels specified in regulation) with a new program for the vessels and fisheries included under that alternative. The new program would be supported by broad-based user fees and/or direct Federal subsidies, in which

NMFS would contract directly for observer coverage and be responsible for determining when and where observers should be deployed.

The restructuring alternatives vary in terms of which vessels and processors are included and how the fee is to be assessed. Under the various alternatives, some vessel operators and processors in fisheries would no longer be responsible for obtaining certain levels of observer coverage specified in regulation, but instead would pay an ex-vessel value based fee and be required to carry observers when requested to do so by NMFS. Depending on the alternative, vessels and processors in fisheries that require 100% or 200% coverage would either be included in the new program and pay an ex-vessel value based fee, continue to operate under the existing pay-as-you-go program; or pay a daily observer fee to NMFS and NMFS would be responsible for observer procurement, rather than the fishing companies themselves.

Alternative 1 is the no action alternative and requires no change to existing Federal regulations or the BSAI and GOA FMPs. Alternative 2 would extend the existing observer program by removing the expiration date in Federal regulations; thus, Alternative 2 represents a Federal regulatory amendment to 50 CFR 670.50. Alternatives 3 – 5, which would modify the service delivery model for the groundfish observer program to a direct contract model between NMFS and observer providers, would require both Federal regulatory amendments and amendments to the BSAI and GOA FMPs.

1.1.1 Background on the Observer Program

NMFS began placing observers on foreign fishing vessels operating off the Pacific Northwest and Alaskan coasts in 1973, creating the North Pacific Foreign Fisheries Observer Program. Initially, observers were placed on vessels only upon invitation by host countries. In the early years of the program, the primary purpose of observers was to determine incidental catch rates of Pacific halibut in groundfish catches and to verify catch statistics in the Japanese crab fishery. Later, observers collected data on the incidence of king crab, Tanner crab, and Pacific salmon, and obtained biological data on other important species. Following the implementation of the Fishery Conservation and Management Act (FCMA); subsequently, the Magnuson FCMA, then Magnuson Stevens FCMA (MSA)) in 1976, which mandated that foreign vessels accept observers, observer coverage greatly expanded.

In 1978, U.S. fishermen began large scale fishing for groundfish, through joint ventures with foreign processing vessels. By 1986, all foreign fishing operations were halted in the U.S. EEZ off the west coast, and by 1991, all foreign joint-venture processing within the EEZ of the Bering Sea and Gulf of Alaska was terminated. NMFS began placing observers on domestic vessels in 1986. This was in support of an industry-funded data gathering program on domestic vessels fishing in an area of the Bering Sea, north of Port Moller, where bycatch of red king crab was of concern. Other small-scale domestic observer programs were implemented during the late 1980s.

The current domestic observer program was authorized in 1989, when the Secretary approved Amendments 13 and 18 to the groundfish FMPs for the BSAI and GOA, respectively. An Observer Plan to implement the program was prepared by the Secretary in consultation with the Council and implemented by NMFS, effective February 7, 1990 (55 FR 4839, February 12, 1990). An EA/RIR prepared for Amendments 13/18 examined the environmental and economic effects of the new program. Under this program, NMFS provides operational oversight, certification training, definition of observer sampling duties and methods, debriefing of observers, and management of the data. Although vessel and processing plant owners pay the cost of the observers, the costs associated with managing the program are paid for by the Federal government.

Under the 1990 Observer Plan, groundfish vessels under 60' length overall (LOA) are not required to carry observers, groundfish vessels longer than 60' but shorter than 125' are required to carry observers

30% of their fishing time, and groundfish vessels 125' and longer are required to carry observers 100% of their fishing time. Shoreside processors that process between 500 mt and 1000 mt of groundfish in a calendar month are required to have observers 30% of the days that they receive or process groundfish. Shoreside processors that process 1,000 mt or more of groundfish in a calendar month are required to have observers 100% of the days that they receive or process groundfish. These coverage levels have been increased to implement certain limited access programs with increased monitoring needs, such as the Western Alaska Community Development Quota (CDQ) Program and the American Fisheries Act (AFA) pollock fishery. However, aside from the CDQ and AFA programs, coverage requirements for the groundfish fleets of the BSAI and GOA have remained largely unchanged since 1990, except that coverage requirements for vessels 125' and over using pot gear were reduced to 30%. Since 1990, the number of observer deployment days per year ranged from about 20,000, to about 36,900 in 2005. In 2005, 321 individual observers served onboard 304 vessels and in 24 processing facilities (Table 1-1).

Table 1-1 Number of groundfish observers, platforms observed, and observer days in the North Pacific, 2002-2005

Year	*Number of observers/vessels observed/plants observed*	*Number of observer days*
2005	321 observers, 304 vessels, 24 plants	36,907
2004	348 observers, 317 vessels, 21 plants	36,624
2003	332 observers, 325 vessels, 21 plants	37,371
2002	340 observers, 312 vessels, 20 plants	34,811

Source: NMFS, Observer Program Office.

Table 1-2 Current observer requirements in Federal regulations

Vessel/processor type	*Observer Requirement*	*Regulation*[1]
halibut vessels	0% (no observer requirement)	n/a
groundfish vessels <60' LOA	0% (no observer requirement)	n/a
groundfish vessels ≥60 and <125' LOA and pot vessels of any length	30% of their fishing days or pot retrievals by quarter and one entire trip per quarter	50 CFR 679.50(c)(1)
groundfish vessels ≥125' LOA (With the exception of pot gear. See above.)	100% of their fishing time	50 CFR 679.50(c)(1)
motherships and shoreside processors that process 500-1000 mt of groundfish in a calendar month	30% of the days they receive or process groundfish	50 CFR 679.50(c)(1)
motherships, stationary floating processors, and shoreside processors that process ≥1000 mt of groundfish in a calendar month	100% of the days they receive or process groundfish	50 CFR 679.50(c)(1)
CPs fishing for Atka mackerel in the Aleutian Islands Subarea	200%	50 CFR 679.50(c)(1)
AFA CPs, motherships, and shoreside processors	200%	50 CFR 679.50(c)(5)
CDQ CPs (trawl and hook-and-line)	200%	50 CFR 679.50(c)(4)
CDQ pot CPs	100%	50 CFR 679.50(c)(4)
CDQ fixed gear CVs and trawl CVs ≥60'	100%	50 CFR 679.50(c)(4)
Rockfish Program CPs	200%; 100% for CPs in the opt-out fishery	50 CFR 679.50(c)(7)(i)
Rockfish Program CVs	100%	50 CFR 679.50(c)(7)(ii)

[1]See 50 CFR 679.50 for further details on current observer requirements. Regulations effective through 12/31/07.

In designing the Observer Program in 1989, NMFS and the Council had limited options, because the MSA provided no authority to charge the domestic industry fees to pay for the cost of observers, and Congress provided no funds to cover the cost of observers (which is still the case today). The need for observers and the data they provide was sufficiently critical and urgent that the Council and NMFS decided not to wait for the MSA to be amended, and instead proceed with Observer Program regulations under Amendments 13/18. These regulations, which were considered "interim" at the time, established observer coverage requirements for vessels and processors participating in the BSAI and GOA groundfish fisheries, and required those vessels and processors to arrange for observer services from an observer provider certified by NMFS.

1.1.2 Previous attempts to restructure the program

After implementation of the "interim" observer program in 1990, NMFS and the Council, recognizing its limitations, began to develop a new program (Research Plan) incorporating a concept which would require all fishery participants to pay a fee based on the ex-vessel revenue from their catch. Collection of this fee was authorized by an amendment to the MSA. Under the Research Plan, NMFS would collect the

fee and contract directly with observer companies for observer services, thus removing the direct link between the fishing industry and the observer contractors. The Council adopted the Research Plan in 1992 and NMFS approved and implemented this program in 1994. During 1995, over $5.5 million was collected to capitalize the North Pacific Fisheries Observer Fund.

Over the period the Research Plan was developed and implemented, industry concerns about the program arose. These issues included:

- Redistribution of costs for observer services that resulted from the collection of fees based on a percentage of ex-vessel revenue;

- Industry concerns about unlimited observer costs in the event observer coverage beyond that funded by fees continued to be required of some vessels participating in specific management programs;

- The amount of observer coverage that could be funded under the Research Plan fee collection program was limited and could constrain the development of programs under consideration by the Council that would require increased observer coverage; and

- Increased costs of observer coverage due to the contractual arrangements between NMFS and observer companies that would fall under the Service Contract Act. Under this act, a company under contract to the Federal government must pay a wage at least comparable to the union wage, or if there is no established union wage for a particular type of work, the contractor must pay a wage at least as high as the wage standard established by the Department of Labor for that type of work.

After consideration of these concerns, the Council voted to repeal the Research Plan at its December 1995 meeting and refund the fees collected from the 1995 fisheries. At the same meeting, the Council directed NMFS to develop a new plan to address the data integrity issues the Research Plan was intended to resolve. Under the new concept endorsed by the Council, fishing operations required to obtain observers would continue to pay coverage costs, but payment would be made to a third party. The third party would enter into subcontracts with observer companies and direct each vessel and processor to a specified observer provider for services. Payments received by the third party would be used to pay observer contractors for providing observer services and to cover administrative costs.

At its April 1996 meeting, the Council adopted an interim groundfish Observer Program and authorized mandatory groundfish observer coverage requirements through 1997. The interim groundfish Observer Program extended 1996 groundfish observer coverage requirements, as well as vessel and processor responsibilities relating to the Observer Program, through December 31, 1997. The interim program continued to require that vessels and processors participating in the BSAI and GOA groundfish fisheries arrange for observer services from an observer contractor certified by NMFS.

During 1997, observers organized to bargain for better compensation and working conditions. Currently, the Alaska Fisheries Division of the United Industrial Workers (AFD-UIW) has contracts with three of the five permitted observer providers in the North Pacific. Also during 1997, NMFS began to develop with Pacific States Marine Fisheries Commission (PSMFC) the concept of a joint partnership agreement (JPA) under which PSMFC would provide the third party procurement functions envisioned by the Council. At its June 1997 meeting, the Council endorsed the continued development of a JPA with the goal of taking final action on the third party program early in 1998, so that a new program could be implemented by 1999. The JPA arrangement could not be developed and implemented prior to 1998, thus, the Council voted to extend the interim Observer Program though 1998.

At its December 1997 meeting, the Council recommended that NMFS and PSMFC continue to develop a JPA that would authorize PSMFC to provide observer procurement services. The Council also requested NMFS to work with the Council's Observer Advisory Committee (OAC) to again develop a fee collection program. The Council anticipated that the JPA would be effective by 1999, and that a fee collection program would be implemented as soon as possible thereafter.

However, an unresolvable legal issue was identified by PSMFC that forestalled efforts to proceed with the JPA. Under the JPA, PSMFC would have been responsible for providing observer services to the industry and for the deployment of observers onboard vessels and at shoreside processing facilities. NMFS also envisioned that PSMFC would have ensured that observers be available to NMFS through the completion of the debriefing process. PSMFC determined that the legal risk associated with its role as a third party to observer procurement arrangements was too high. Furthermore, NMFS could not sufficiently indemnify PSMFC against legal challenge, because (1) no statutory authority for such indemnification exists, and (2) the Anti-Deficiency Act precludes open-ended indemnification. Regulations developed to implement the JPA were thought to be able to deflect potential lawsuits away from PSMFC to NMFS, but ultimately could not sufficiently reduce the potential for lawsuit in a manner that would allow PSMFC to go forward with the JPA, as endorsed by the Council.

1.1.3 Extensions of the Interim Program since 1998

Without the JPA as a viable alternative to the interim Observer Program, the OAC and the Council, as well as NMFS, continued to advocate pursuit of an appropriate program structure that would address the issues that the Research Plan and the JPA were intended to resolve. Subsequently, the interim program was extended in 1998, to expire December 31, 2000.

In 2000, the interim Observer Program was once again extended for two years with an expiration date of December 31, 2002. This was approved with the expectation that a restructured program would be developed and implemented by that date. The anticipated restructured program was expected to address the concerns set forth by the administrative record which provided the justification and impetus for the development of the Research Plan and the JPA, as well as address the concerns that brought about the demise of the Research Plan and JPA initiatives. NMFS has been working with the OAC since March 2000, to develop a program structure as an alternative to the Research Plan, JPA, and the current program.

In 2002, the interim Observer Program was once again extended, this time with an expiration date of December 31, 2007. The 2002 amendments to the interim program were an attempt to de-link the more difficult and controversial restructuring issues from the more straightforward administrative changes to the program. The 2002 extension of the program included a variety of new measures to increase the effectiveness of the interim program while restructuring efforts were ongoing. These included: (1) changes to the observer certification and decertification process to ensure that it is compliant with the APA; (2) changes to the observer certification criteria and standards of behavior to clarify and strengthen these regulations; (3) replacement of the observer provider (contractor) certification and decertification process with an APA compliant permitting process similar to that used for other NMFS Alaska Region permits; (4) changes to the duties and responsibilities of observer providers in order to eliminate ambiguities and to strengthen the regulations governing the relationship between NMFS and the observer providers, and (5) authorizing NMFS to place NMFS staff and other qualified persons at any plant that receives groundfish and on any vessel that currently is required to have observer coverage. Thus, under the most recent regulatory amendment to extend the interim Observer Program, the current program will expire on December 31, 2007.[3]

[3] 67 FR 72595, December 26, 2002.

1.2 Purpose and need for action

The North Pacific Groundfish Observer Program is the largest observer program in the United States and plays a critical role in the conservation and management of groundfish, other living marine resources, and their habitat. Data collected by the Observer Program are used for a wide variety of purposes including: (1) stock assessment; (2) monitoring groundfish quotas; (3) monitoring the bycatch of groundfish and non-groundfish species; (4) assessing the effects of the groundfish fishery on other living marine resources and their habitat; and (5) assessing methods intended to improve the conservation and management of groundfish and other living marine resources.

The mission of the observer program is to provide the highest quality data to promote stewardship of the North Pacific living marine resources for the benefit of the Nation. The goal of the observer program is to provide information essential for the management of sustainable fisheries, associated protected resources, and marine habitat in the North Pacific. This goal is supported by objectives that include:

1. Provide accurate and precise catch, bycatch, and biological information for conservation and management of groundfish resources and the protection of marine mammals, seabirds, and protected species.
2. Provide information to monitor and promote compliance with NOAA regulations and other applicable programs.
3. Support NMFS and the Council policy development and decision making.
4. Foster and maintain effective communications between managers, scientists, and participants in the fisheries.
5. Conduct research to support the mission of the North Pacific Groundfish Observer Program.

The Observer Program has an integral role in the management of North Pacific fisheries. Information collected by observers is used by managers, scientists, enforcement agents, and other agencies in supporting their own missions. Observers provide catch information for quota monitoring and management of groundfish and prohibited species, biological data and samples for use in stock assessment analyses, information to document and reduce fishery interactions with protected resources, and information and samples used in marine ecosystem research. The Observer Program provides information, analyses, and support in the development of proposed policy and management measures. Further, observers interact with the fishing industry on a daily basis and the Observer Program strives to promote constructive communication between the agency and interested parties. Observations are used by mangers and enforcement personnel to document the effectiveness of the management programs of various entities, including NMFS, the U.S. Coast Guard, and the U.S. Fish and Wildlife Service. In order to provide these services, the Observer Program Office routinely conducts research projects and analyses designed to assess the efficacy of management programs.

Finally, note that the Programmatic Supplemental EIS prepared for the groundfish fisheries off Alaska emphasized the importance of data collection in the management of the groundfish resources off Alaska. The preferred alternative identified improved data quality and management that would accrue under a restructured observer program with a new service delivery model (NMFS 2004).

One size does not fit all: Problems with industry funding of observer coverage in small vessel fisheries and in the Gulf of Alaska

In designing the Observer Program in 1989, NMFS and the Council had limited options because the MSA provided no authority to charge the domestic industry fees to pay for the cost of observers, and Congress provided no funds to cover the cost of observers. Under this program, NMFS provides operational

oversight, certification training, definition of observer sampling duties and methods, debriefing of observers, and management of the data. While the costs associated with managing the program are paid for by the Federal government, the vessel and plant owners pay for the entire cost of observers (on a daily basis) through contracts with private observer companies.

In effect, the Council and NMFS modified and applied the successful industry-funded approach used in the foreign fisheries off Alaska to the newly-emerging domestic fisheries off Alaska. This approach has provided the Council and NMFS with the tools to successfully manage the Nation's largest groundfish fisheries for the last 15 years. However, despite what is generally considered a successful record of management in the North Pacific, due in part to data gathered by observers, the current program exhibits a number of problems that can only be addressed by changing how observer coverage is funded and how observers are deployed. One effective and equitable approach would be to implement a new program in which Federal funds are used to subsidize observer coverage on small vessels, and/or those operating in the Gulf of Alaska.

As noted above, the current North Pacific Groundfish Observer Program is a legacy of the 1970s and 1980s, when foreign fishing companies operating large factory trawlers and processing ships were operating in the U.S. EEZ. For these large foreign companies, paying for observer coverage was a cost of doing business, and a relatively minor cost when compared to the value they derived from the resource they were exploiting. During the initial rush by American companies to enter the groundfish fishery off Alaska, a large-scale domestic fishing industry developed, primarily to prosecute the offshore groundfish fisheries of the BSAI. Many large American factory trawlers and hook-and-line catcher processor vessels were built along the same lines as the foreign vessels they were replacing. At the time, it made sense for NMFS to extend observer coverage to these vessels and processors through the same industry-funded approach that was previously used to fund coverage on foreign vessels. Indeed, several of the domestic companies operating large vessels and processors primarily or wholly in the BSAI have testified to the Council on many occasions that they prefer the industry-funded approach to alternatives such as using fish taxes to fund observer coverage.

However, despite the relative satisfaction that several large fishing companies have expressed with the current program, many smaller-scale operations have found that the cost of paying for their own observer coverage is a far greater burden than it is for the large companies operating large vessels and processors. This is especially true in the GOA, where the groundfish industry has developed along much more traditional lines than in the BSAI, and where fishing fleets and communities more closely resemble those in the rest of the country than they do the BSAI. It is also true for smaller scale operations in the BSAI and some CDQ fisheries where observer costs can amount to a relatively large fraction of overall revenues.

Observer program-related problems and costs faced by Alaska's coastal fishermen

The current groundfish observer program throughout Alaska is one in which groundfish vessels less than 60' are not required to carry observers and vessels 60'-125' LOA are required to carry observers 30% of their fishing days regardless of gear type or target fishery. Each operation must arrange and pay for its own observer coverage. These two size categories make up the majority of vessels fishing in the GOA and out of ports other than Dutch Harbor and Akutan in the BSAI. There are several impacts of the current program that require highlighting:

- Vessels less than 60' LOA are not required to carry observers, and therefore, incur no observer costs. Observers on vessels greater than 60’ estimate total catch for a portion of the hauls or sets, and sample these hauls or sets for species composition. These data are statistically extrapolated to estimate total catch by species for the entire fishery, including unobserved vessels. Observer

data from observed vessels are assumed to be representative of the activity of all vessels, and are also used to estimate total catch of prohibited species for the entire fishery. In the GOA, vessels less than 60' constitute 92% of the groundfish fleet and harvest 58% of the total groundfish catch by value. All of this harvest is unobserved, in part because of concerns with the cost of observer coverage and the practical and logistical difficulties with placing observers on smaller vessels.

- Vessels between 60'-125' LOA are required to carry observers 30% of their groundfish fishing days. These vessels, many of which operate in the GOA, pay a disproportionate percentage of their average annual ex-vessel revenues from groundfish towards groundfish observer coverage costs relative to both their under 60' counterparts (who pay nothing) and the large offshore vessels operating in the BSAI.[4] This is due to two reasons: 1) the revenues these vessels derive from the groundfish fisheries are far lower on a per-vessel basis than that of the large offshore vessels in the BSAI, and 2) the daily costs of observer coverage are often higher for vessels operating in the GOA, due to the logistics of deploying observers to remote ports for short periods of time. (See Table 4-11 and Table 4-12).

- Vessels greater than 60' LOA also pay a disproportionate percentage of their revenues towards observer costs *relative* to their counterparts outside of Alaska. With one exception, the North Pacific Groundfish Observer Program is the only one in the U.S. in which fishing vessels pay for their own observer coverage to meet coverage requirements established in Federal regulations.[5] This means that fishermen who fish in Alaska, pay a much higher percentage of their revenues for observer coverage than do similarly-situated fishermen in fisheries outside of Alaska. In addition, Alaska's coastal communities are far less diversified, have fewer economic opportunities, and participants who reside in these communities are more dependent on commercial fishing than many fishing communities outside of Alaska.

- Smaller entities in the fishing industry *may* face disproportionate observer coverage costs, relative to their larger counterparts. The current program, in which "some" small entities face the same or higher per day costs of observer coverage as "some" large entities (although for <u>many</u> fewer days per fishing season, i.e., 30% coverage versus 100%), results in small entities with lower daily production potentially having a competitive disadvantage, as measured by individual rates of net earning on those days when observers are aboard, depending on the value and size of their catch. While these relative competitiveness trends likely are present regardless, they may be exacerbated by the imposition of observer coverage costs on small operations in the 60'-125' vessel length range.

Additional coverage needs in the halibut fishery

While the primary focus of observer coverage off Alaska has been the groundfish fishery, NMFS also recognizes a monitoring need in other commercial fisheries, including the halibut fishery. These fisheries are only observed incidentally to groundfish operations. In 1998, the U.S. Fish and Wildlife Service (USFWS) prepared a Biological Opinion (BiOp) on the commercial Pacific halibut hook-and-line fishery in the GOA and BSAI, and its effects on the short-tailed albatross *(Phoebastria albatrus)* (USFWS 1998). The USFWS concluded:

[4]Note that while many GOA catcher vessels between 60' – 125' also derive significant revenues from the crab and salmon fisheries, this issue is related to the disproportionate amount this fleet pays for observer coverage to monitor and manage the groundfish fisheries compared to the revenue it derives from the fishery.

[5]The Pacific hake observer program in the Northwest region is funded by industry in a pay-as-you-go system in the same manner as the North Pacific Groundfish Observer Program.

The Service believes the following reasonable and prudent measures are necessary and appropriate to minimize take of short-tailed albatrosses which will result from this action.

1) The research plan required by the reasonable and prudent measures of the June 12, 1996 biological opinion on the BSAI/GOA groundfish fishery will apply also to this fishery [i.e., the Pacific halibut off Alaska], *and will be implemented.*

2) Initial indications are that a given halibut vessel is far more likely to encounter a short-tailed albatross during a given unit of fishing effort than is a BSAI/GOA groundfish fishing vessel. Data supporting or refuting this supposition do not exist. ***The NMFS shall prepare and implement a plan to investigate all options for monitoring the Pacific halibut fishery in waters off Alaska. It will then institute changes to the fishery appropriate to the results of this investigation.***

3) The NMFS has done an admirable job in making commercial fishers aware of the plight of endangered birds and marine mammals. They shall continue to educate commercial fishers about seabird avoidance measures, short-tailed albatross identification, the importance of not taking short-tailed albatrosses, and ways to avoid taking them when they are sighted near bait.

In order to be exempt from the prohibitions of section 9 of the Act, the NMFS must comply with the following terms and conditions, which implement the reasonable and prudent measures described above and outline required reporting/monitoring requirements. These terms and conditions are non-discretionary.

Terms and conditions must include reporting and monitoring requirements that assure adequate action agency oversight of any incidental take [50 CFR §402.14(I)((1)(iii) and (I)(3)]. The monitoring must be sufficient to determine if the amount or extent of take is approached or exceeded, and the reporting must assure that the USFWS will know when that happens. The NMFS must provide for monitoring the actual number of short-tailed albatrosses taken, and assure that the reasonable and prudent measures are reducing the effect of the fishery to the extent anticipated. If the anticipated level of incidental take is exceeded, the action agency must immediately stop the action causing the take and reinitiate formal consultation.

Under these terms and conditions, the NMFS must:

1) Apply the groundfish fishery seabird avoidance evaluation research plan (required by the reasonable and prudent measures of the June 12, 1996 biological opinion on the BSAI/GOA groundfish fishery) to this fishery [i.e., the Pacific halibut off Alaska], *with changes appropriate to reflect differences in the timing and methodologies between the two fisheries.*

2) Implement the above seabird avoidance evaluation research plan. Implementation of this plan shall begin no later than 1999. The seabird avoidance evaluation shall be comprised of experiments to test the effectiveness of seabird deterrent devices and methods, and shall use observers to monitor the effectiveness of deterrent devices and methods used by the vessels participating in the evaluation. The NMFS will report to the USFWS on the parts of the plan that have been implemented concurrent with their implementation. A final report of this seabird avoidance device and methods evaluation will be made to the USFWS by December 31, 2000.

3) The NMFS will institute changes to the Pacific halibut fishery in waters off Alaska deemed appropriate based upon the evaluation of the seabird deterrent devices and methods. ***Changes may range from requiring minimal observation of the fishery due to the effectiveness of the deterrent***

devices to requiring extensive observer coverage and expanded or modified use of seabird deterrent devices and methods *(emphasis added).*

1.2.1 Development of the Problem statement and Alternatives

At its October 2002 meeting, the Council tasked its Observer Advisory Committee (OAC) to develop a problem statement and alternatives for restructuring the Observer Program, to be presented at the February 2003 Council meeting. In order to facilitate further progress by the committee, NMFS developed a discussion paper[6] that included a general discussion of issues and alternatives related to the restructuring of the Observer Program. The OAC met January 23 - 24, 2003, with the primary purpose of reviewing this paper, drafting a problem statement, and providing recommendations to the Council. At its February 2003 meeting, the Council reviewed the discussion paper and the draft OAC report and approved the following draft problem statement for restructuring the Observer Program:

> *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. 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.*

Since earlier attempts to restructure the program had not been successful, NMFS, Council staff, and the OAC began to consider a stepwise approach in 2003. This was based on the concept that it might be effective to undertake a less ambitious restructuring effort focused primarily on those regions and fisheries where the problems of disproportionate costs and coverage are believed to be most acute. The intent was that once a restructured program had been implemented successfully for some fisheries, the Council could decide whether or not to proceed with expanding the program to include additional fisheries. The initial alternatives approved by the Council in April 2003 reflected this approach, and focused primarily on the groundfish and halibut fisheries of the GOA, with options to include BSAI groundfish vessels that currently have less than 100% coverage requirements. In December 2003, the Council reviewed a preliminary draft analysis of the impact of those alternatives.

As NMFS began to evaluate alternatives under this scenario, however, it became concerned that certain operational and data quality issues would be difficult to resolve under a "hybrid" system and that, in fact, some of these problems would likely become exacerbated under such a system. NMFS described its concerns in a letter provided to the Council for its December 2003 meeting. First, NMFS identified a range of operational and data quality issues associated with the current model. These included the agency's inability to determine where and when observer coverage takes place on less-than-100%

[6] Discussion paper on Options for Observer Program Restructuring, NMFS Alaska Region, January 21, 2003.

observed sectors of the fleet, inability to match observer skill level with deployment complexity, inability to reduce observer coverage for sectors of the fleet that are now subject to 100% or greater coverage levels, and the inability to implement technological innovations which might meet monitoring needs while reducing observer coverage costs.

Secondly, this letter outlined concerns with the proposed alternatives for a new system, highlighting the consequences of possible differences in observer remuneration under a system which provided observer services through government contract with observer companies to some fishing sectors and through industry contracts with observer companies in other sectors. The observer remuneration issues were based on an agency policy on observer compensation which is described in a November 2003 memo from NMFS Headquarters.[7] In addition, NMFS identified complex factors associated with properly and consistently maintaining observer and contractor performance under a hybrid program with two different service delivery models.

Thus, in addition to reviewing the preliminary draft analysis in December 2003, the Council received the letter from NMFS described above, which detailed potential issues of concern related to observer certification/decertification and the application of a new NMFS policy which defines wage rates and overtime requirements for observers under service delivery models that include direct contracts between NMFS and observer providers. NMFS requested additional time to address these issues, in order to determine whether the agency could support a hybrid program in which some vessels (primarily BSAI vessels) would operate under the current pay-as-you-go model, and the remaining vessels (primarily GOA vessels) would operate under the new contract system. Due to the above concerns, the Council did not take any formal action in December 2003, and scheduled an update at its February 2004 meeting and an OAC meeting in March.

At the February 2004 Council meeting, NMFS provided a subsequent letter to the Council stating that the agency had determined that effective procedures for addressing observer performance and data quality issues could only be addressed through a service delivery model that provided direct contractual arrangements between NMFS and the observer providers. NMFS thus recommended that the Council include an additional alternative to the draft analysis that would apply the proposed direct contract model program-wide, so that all observer services in both the BSAI and the GOA would be provided by observer companies through direct contracts with NMFS.

Upon review of the NMFS letter at its February meeting, the Council tasked the OAC at its upcoming meeting to explore new alternatives that address the issue of combining the BSAI and the GOA as one comprehensive observer program, including the concept of a direct NMFS contract with observer providers. The impetus for considering a program-wide alternative was twofold. The first was in response to the above mentioned agency concerns regarding operational and data quality factors. The second was in response to concerns raised by the NMFS policy memo on observer remuneration. This memo was also discussed at the February 2004 Council meeting. The policy maintained that fisheries observers are eligible for overtime compensation under the Service Contract Act (SCA), the Fair Labor Standards Act (FLSA), and other Acts stipulating wages and benefits for employees contracted by the government. As part of the Council's February 2004 motion, the Council sent a letter to NMFS HQ requesting reconsideration of this policy and clarification as to how this policy would affect observer compensation costs under a direct contract approach, as was proposed in the draft analysis for the Observer Program in the North Pacific.[8] An initial response was received on March 8, recognizing the

[7] Memo from William Hogarth to Terry Lee, November 13, 2003. See Appendix II.
[8] Letter from Chris Oliver to William Hogarth, February 11, 2004. See Appendix II.

issues identified by the Council, but concluding that the agency could not provide a timely response, due to ongoing litigation in U.S. District Court related to these issues.[9]

At the OAC's March 11 – 12, 2004 meeting, the committee addressed the major issues requested by the Council, with the understanding that further information on observer compensation issues and the cost implications of NMFS' recent policy were necessary, and at the time, unavailable, to understand the impacts of any of the existing or new alternatives. The primary recommendations of the committee, detailed in the OAC report, included the addition of two new alternatives (and suboptions) for analysis which included specific BSAI fleets that may also experience disproportionately high observer costs or have modes of operation that would make it difficult to retain observer services under two different programs in the BSAI and GOA. However, the committee did not recommend including a program-wide alternative for all BSAI and GOA vessels and processors. Members generally expressed concern that there had not been sufficient explanation provided as to why NMFS cannot implement two separate programs in the GOA and the BSAI, and there was a general disinclination to add new fleets into a direct contract system which would invoke the SCA and increase costs to an unknown extent. Some committee members also did not want to delay action to mitigate the problems in the GOA fisheries by including the BSAI, and discussed the possibility of, but did not recommend, developing a separate problem statement and amendment package for the BSAI.

The Council reviewed the OAC recommendations at its April 2004 meeting, as well as another letter from NMFS that was submitted to the Council in late March. This letter reiterated NMFS's concerns with having two separate programs in the BSAI and the GOA, and again recommended a program-wide alternative for analysis. The Council ultimately approved both of the OAC's newly proposed alternatives and the program-wide alternative recommended by NMFS. The result was that the Council expanded the suite of alternatives to include the major fisheries of the BSAI.

In June 2004, the Council also provided options to consider an alternative type of fee for analysis (other than a fee based on ex-vessel value) for the alternatives that include the major fisheries of the BSAI. Many of the BSAI fisheries require individual vessel or cooperative level monitoring, and thus require 100% or greater observer coverage as mandated by law or by the provisions of a specific management program. For these fisheries, the Council determined it would be appropriate to analyze a type of fee which can exactly match the costs of observer coverage, and thus avoid the potential for reducing coverage levels to respond to revenue shortfalls. Thus, in June 2004, the Council approved options to consider a daily observer fee for those BSAI fisheries that have 100% or greater coverage requirements for their specific management programs.[10]

In June 2005, the Council concluded that the previous number of alternatives and options was unnecessarily complicating the analysis and decided to condense the number of alternatives. **The Council thus approved the following five alternatives in June 2005:** a no action alternative, extension of the existing program, and three alternatives that would involve restructuring of the existing program to some extent. These five alternatives are detailed in Chapter 2. The intent was to focus on the three most viable alternatives for restructuring the program, in order to better enable the industry and public to

[9] Letter from William Hogarth to Chris Oliver, March 8, 2004. See Appendix II.

[10] Note that a subsequent letter from NOAA Fisheries regarding observer remuneration was received by the Council on September 27, 2004. This letter noted that consultation with the Dept. of Commerce General Counsel and the Dept. of Labor (DOL) resulted in the determination that NMFS has limited responsibility with respect to observer remuneration. The DOL's Wage and Hour Division is the primary Federal agency responsible for enforcing the SCA and FLSA, and the DOL regulations do not relate directly to the circumstances of fishery observers whose tour of duty may exceed 24 hours. NMFS thus recognizes that further guidance may be useful regarding these requirements and how they pertain to fishery observers. The DOL offered to provide training and guidance to NOAA contracting officers, observer providers, and other interested parties as appropriate on the SCA and FLSA. These sessions were scheduled for February 2005, but were cancelled by the DOL. They have not been rescheduled.

understand the issues and tradeoffs involved with the implementation of a new program. In addition, the five alternatives are better distinguished from one another, thus, the differences can be more clearly identified in the analysis.

As mentioned previously, a significant issue affecting the development of the alternatives and analysis is related to observer compensation and the applicability of the overtime pay provisions in the FLSA. In February 2005, the NMFS Alaska Region and the North Pacific Groundfish Observer Program (NPGOP) sent a memo to NMFS Headquarters requesting concurrence with its determination that North Pacific groundfish observers should be classified as professionals under the FLSA.[11] Such a determination would make observers exempt from the overtime provisions of the FLSA.

On November 29, 2005, NMFS Headquarters indicated in two letters that the agency has examined the issue and continues to believe that observers should be classified as technicians under the FLSA, and therefore should be entitled to overtime pay.[12] First, NMFS Headquarters responded to industry inquiries about whether observers could be classified as professionals, exempt under the FLSA. NMFS responded that observers should be classified as technicians, and should therefore be eligible for overtime pay:

> *The classification of observers under our authority (i.e., federal employees, federally contracted employees, and third-party contractors using federal funds) as "professionals" would require a determination that they meet all FLSA criteria for a learned professional exemption found at 29 CFR 541.300 – 541.301. We have recently re-examined the duties, qualification, and compensation of our observers, and compared this information to the governing requirements of FLSA and the Service Contract Act 41 USC 351, et seq.). We concluded that observers under our authority do not meet the requirements for a professional exemption under the FLSA*[13].

Second, NMFS Headquarters drafted a letter to the Wage and Hour Division of the DOL requesting an interpretation of the applicability of the SCA and FLSA to fisheries observers employed by NMFS and by observer service providers that are either under contract with or given permits by NMFS.[14] The letter requested guidance on computing hours worked and the associated rules governing compensation of fishery observers, and the applicability of the SCA and FLSA on land, in the territorial sea of the EEZ, and in international waters. The letter detailed many circumstances unique to working at sea on fishing boats in which the applicable laws are less than clear. At the February 2006 Council meeting, NMFS indicated to the Council that it did not anticipate receiving a response from the DOL in time for final action on a restructuring alternative in early 2006, and indicated that responses to the most difficult questions may not be definitive in any event. **Without additional information on the applicability of the FLSA provisions, the classification of working versus non-working hours, and verification of hours worked, NMFS and analysts are unable to provide a comprehensive assessment of observer costs under a new service delivery model (Alternatives 3 – 5).**

[11] Memo from James Balsiger and Douglas DeMaster to William Hogarth, February 4, 2005. See Appendix II.

[12] Letter from William Hogarth to Arni Thomson, November 29, 2005, and letter from William Hogarth to Alfred Robinson, Wage and Hour Division, Department of Labor, November 29, 2005.

[13] Letter from William, T. Hogarth, Ph.D to Arni Thomson, November 29, 2005 (See Appendix II).

[14] Letter from William T. Hogarth, Ph.D. to Alfred B. Robinson, Jr. Deputy Administrator, Wage and Hour Division, U.S. Department of Labor, November 29, 2005 (See Appendix II).

Finally, it is important to note that NOAA General Counsel, Alaska Region (GCAK) has made a legal determination that the Research Plan authority provided in the MSA (Section 313) to assess a fee for observer coverage cannot 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 (see Section 2.8.1). **Therefore, all of the action alternatives except Alternative 2 (extension of the current program) are likely to new require statutory authorization unless it is determined that different fees can be assessed against different fisheries or sectors.**

Given the events above, NMFS submitted a letter to the Council (January 22, 2006) prior to the February Council meeting, recommending that the Council extend the existing program until several critical cost-related issues and statutory barriers are resolved.[15] NMFS recommended that the Council adopt Alternative 2 to maintain the current program based on the fact that: 1) Congressional authority necessary to implement any of the fee-based alternatives has not yet occurred, 2) it is not possible to estimate costs associated with the fee-based alternatives until overtime pay issues are clarified by the Department of Labor or in statute; and 3) the current observer program expires on December 31, 2007.

The OAC met in late January to provide recommendations on the analysis and review the NMFS letter described above. The committee ultimately recommended that the Council select Alternative 2 as its preferred alternative for this analysis, given the need for continuing the program in the short-term and the lack of control over the Congressional authority and cost issues. The Council reviewed both NMFS's recommendation and the January OAC report in February 2006.

At its February 2006 meeting, the Council discussed the NMFS and OAC recommendations. Because it appeared reasonable to delay any action on restructuring the Observer Program (Alternatives 3 – 5) until the issues described above were resolved, the Council also discussed whether to initiate subsequent action and analytical documents that would include only current Alternatives 1 and 2. Some members of the Council were concerned that, with this scale down amendment package, a decision to adopt Alternative 2 could be taken out of context, and not reflect their efforts and reasoning for adopting an extension to the current program, despite it's problems and shortcomings. Based on these discussions and with concurrence from NMFS, the Council chose not to initiate a separate analysis to extend the Observer Program beyond 2007, but rather to continue to include analysis of Alternatives 3-5, to the extent practicable. By including these alternatives, the public could better understand how the Council arrived at its decision.

With this in mind, the Council selected Alternative 2 as its final preferred alternative in June 2006, noting that the February 2006 motion outlines the intent to consider a new amendment to change the observer program service delivery model at such time that additional information is available, and assuming such authority is granted by Congress. The Council also approved an addition to the problem statement to recognize that while Alternative 2 does not meet the majority of the issues identified in the problem statement, it does meet the short-term need of preventing the expiration of the observer program until these external issues are resolved. The comprehensive problem statement is below (the second paragraph was added in February 2006):

[15] Letter from Robert D. Mecum, Acting Administrator, Alaska Region to Stephanie Madsen, Chair, North Pacific Fishery Management Council, January 22, 2006. See Appendix II.

Observer 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. 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.

While the Council continues to recognize the issues in the problem statement above, existing obstacles prevent a comprehensive analysis of potential costs. Immediate Council action on a restructured program is not possible until information is forthcoming that includes clarification of cost issues that arise from Fair Labor Standards Act and Service Contract Act requirements and statutory authority for a comprehensive cost recovery program. During the interim period, the Council must take action to prevent the expiration of the existing program on December 31, 2007.

While the restructuring alternatives (Alternatives 3-5) remain in this document to provide context and supplemental information relative to the Council's action, the public should only consider and provide comment on Alternatives 1 and 2, as these alternatives are comprehensively analyzed and represent the actual alternative set being proposed under this action.

At the same time the Council took action, it 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.

The Council also requested that subsequent amendments proposed to restructure the Observer Program should include an option for the Federal funding of observers. The Council also requested that NMFS prepare a discussion paper on issues and internal agency process for the use of video equipment to complement and augment observer monitoring of the North Pacific groundfish fisheries under the current service delivery model.

Note that, as described previously in Section 1.1.3, the Council adopted and NMFS approved, an interim observer program subsequent to repealing the Research Plan (61 FR 56425, 11/1/96). These regulations included a sunset date that was intended to maintain the current program during the time period necessary to develop and implement a different observer service delivery model. The sunset date has been extended four times: through 1998 (62 FR 67755, December 30, 1997), through 2000 (63 FR 69024, December 15,

1998), through 2002 (65 FR 80381, December 21, 2000), and through 2007 (67 FR 72595, December 6, 2002). Each extension required separate analysis, Council consideration, and rulemaking by the NMFS.

In January and February 2006, the OAC discussed adding a new sunset date as part of Alternative 2, in part to keep the observer issues at the forefront of the Council's priorities. Based on discussions with NMFS and Council staff, the OAC recommended, and the Council agreed, not to modify Alternative 2 to add a sunset date. This decision was made, in part, because the external circumstances surrounding the extension of the current regulations past December 31, 2007, differ from those realized in the past. These include unresolved issues related to observer compensation that prevent a comprehensive analysis of potential costs under the restructuring alternatives, and a lack of statutory authority to implement the funding mechanisms proposed in Alternatives 3 - 5.

1.3 Proposed changes to Federal Regulations

The proposed action under the preferred alternative (Alternative 2) represents an amendment to Federal regulations at 50 CFR 679.50. This amendment would eliminate the expiration date of December 31, 2007, currently in Federal regulations. The recommended change to the current regulatory language in 50 CFR 679.50 is provided below:

> **Subpart E--Groundfish Observer Program**
> **§ 679.50 *Groundfish Observer Program***
> ***~~(effective through 12/31/07)~~***
>
> ***(a) General.***
> Operators of vessels possessing a Federal fisheries permit under § 679.4(b)(1) and processors that possess a Federal processor permit under § 679.4(f)(1), must comply with this section. The owner of a fishing vessel subject to this part or a processor subject to this part must ensure that the operator or manager complies with this section and is jointly and severally liable for such compliance. Observer coverage for the CDQ fisheries obtained in compliance with paragraphs (c)(4) and (d)(5) of this section may not be used to comply with observer coverage requirements for non-CDQ groundfish fisheries specified in this section….

Chapter 2 Description of the Alternatives

The alternatives and program elements analyzed in this document are described in this chapter. In addition to a comprehensive analysis of the no action alternative and an alternative to extend the current Observer Program beyond December 31, 2007, three alternative approaches for restructuring the Observer Program are discussed. **Note that the Council identified Alternative 2 as its preferred alternative in June 2006, for various reasons related to the absence of Congressional action to grant authority to Councils for this purpose and cost uncertainties, as described in Chapter 1.**

For various reasons related to Congressional delays in authorizing Council authority, and cost uncertainties described in Chapter 1, NMFS, the Council, and the OAC agreed that recommending adoption of a restructured program, as proposed in Alternatives 3 – 5, is not prudent at this time. **While the restructuring alternatives remain in this document, primarily to provide context and supplemental information relative to the Council's action, the public should only consider and provide comment on the "no action" alternative (Alternative 1), and the "status quo" alternative (Alternative 2) which extends the current Observer Program beyond 2007, as this represents the decision point at this time.**

The majority of this chapter describes necessary elements under the restructured program alternatives. Those alternatives were the primary focus of this action prior to the recognition that, due to the imminent "sunset" of authority for (i.e., loss of) the observer program, Alternative 2 is the only viable alternative in the short-term, and prior to its selection as the Council preferred alternative.

2.1 Summary of the alternatives

Alternative 1 is the no action alternative, under which the current observer program would expire at the end of 2007. **Alternative 2** is the rollover alternative, under which the sunset date for the existing pay-as-you-go program would be removed and the program extended. The public should focus comment on these alternatives. **Alternatives 3 – 5** are provided here for context in the decision making process. They would restructure the observer program, such that vessels and processors included in the new program would pay a fee to NMFS, and NMFS would determine when and where observers are deployed through direct contracts with observer providers. Alternatives 3 – 5 are distinguished primarily in terms of scope (i.e. which vessels and processors would be included in the program) and by the structure of the fee collection program. The alternatives under consideration are as follows:

Alternative 1. **No action alternative.** Under this alternative, the current interim "pay-as-you-go" program, which is the only source of groundfish observer data for the fisheries of the BSAI and GOA, <u>would expire at the end of 2007.</u>

Alternative 2. **Rollover alternative: Extension of the existing program.** (**<u>Council preferred alternative</u>**). Under this alternative, the 2007 sunset date for the existing program would be removed and the program would be extended indefinitely, with no changes to the overall service delivery model. This alternative would prevent the existing program from expiring and preserve acquisition of critical observer data.

Alternative 3. **GOA-based restructuring alternative. Restructured program for GOA groundfish and all halibut fisheries; rollover existing program in BSAI.** A new ex-vessel value fee program would be established to fund coverage for GOA groundfish vessels, GOA-based processors, and halibut vessels operating <u>throughout</u> Alaska. Regulations that

divide the fleet into no coverage, 30%, and 100% coverage categories would no longer apply to vessels and processors in the GOA. Fishermen and processors would no longer be responsible for obtaining their own observer coverage. NMFS would determine when and where to deploy observers, based on data collection and monitoring needs, and would contract directly for observers using fee proceeds and/or direct Federal funding. Vessels in the GOA would be required to carry an observer when one is provided by NMFS. Under this alternative, the current "pay-as-you-go" system would be unchanged for all groundfish vessels and processors that operate in the BSAI. Vessels and processors that operate in both management areas would obtain their observer coverage and pay fees through whichever program applies to the management area in which they are currently operating.

Alternative 4. Coverage-based restructuring alternative. Restructured program for all fisheries with coverage less than 100% (Tiers 3 and 4). This alternative differs from Alternative 3 in that the program would be defined by coverage categories, rather than geographic area. All vessels and processors operating in Federal groundfish fisheries off Alaska, assigned to Tiers 3 and 4 (i.e., that require less than 100% coverage), and all halibut vessels, would participate in the new program and pay an ex-vessel value based fee. In general, this alternative would apply to all halibut vessels, all groundfish catcher vessels <125' LOA, and all non-AFA shoreside processors. All vessels and processors assigned to Tiers 1 and 2 (100% or greater coverage) would continue to operate under the current "pay-as-you-go" system.

Alternative 5. Comprehensive restructuring alternative. Restructured program for all groundfish and halibut fisheries off Alaska. This alternative would establish a new fee-based groundfish observer program in which NMFS has a direct contract with observer providers for all GOA and BSAI groundfish and halibut vessels. Under this alternative, vessels with 100% or greater coverage requirements would pay a daily observer fee, and vessels with coverage requirements less than 100% would pay an ex-vessel value based fee.

2.2 Elements necessary under Alternatives 3 - 5

A newly restructured program, as under Alternative 3, 4, or 5, would replace the current pay-as-you-go system, in which vessels contract directly with observer providers to meet coverage levels specified in regulation, for the fisheries specifically included in the alternative. A new program would be supported by broad-based user fees and/or direct Federal subsidies, in which NMFS would contract directly for observer coverage and be responsible for determining when and where observers should be deployed. Each restructuring alternative (Alternatives 3 – 5) represents a comprehensive program, constructed from the **following five program elements**:

- **Scope**: Which vessels and processors would be included in the program?
- **Coverage requirements:** What levels of coverage would be required for each vessel, processor, or fishery category?
- **Funding mechanism:** How would the costs of observer coverage be funded?

- **Technological/equipment requirements:** What types of equipment and technologies would vessels be required to deploy, in order to facilitate coverage by observers, under the new program?

- **Contracting process:** How would NMFS contract with observer providers to obtain observer coverage?

Two underlying principles guide the construction of the restructuring alternatives: scalability and adaptability. Should an alternative not include all of the GOA and BSAI fisheries, the restructured program should still be flexible enough so that it could be expanded to include additional fisheries or management areas in the future, without major modifications. One of the primary considerations in designing a modified observer program for the groundfish fisheries was to make it sufficiently flexible to accommodate future expansion into other fisheries that may not be selected in the preferred alternative at final action. Secondly, the restructured program should be flexible enough to accommodate potential new management programs, such as GOA groundfish rationalization, without wholesale modification. The Council is currently considering a host of dedicated access privilege management proposals for various GOA and BSAI fisheries; thus, a new Observer Program design should be compatible with these management proposals.

Any comprehensive restructuring of the Observer Program that provides NMFS with the flexibility, through direct Federal contracting, to determine when and where observers are deployed, must contain a variety of program elements. Many of these program elements contain additional decision points that are not exclusive to a particular restructuring alternative, but are common to all of the restructuring alternatives. **The required program elements and decision points associated with the restructuring alternatives (Alternatives 3 – 5) are discussed in Sections 2.2.1 through 2.2.5.**

2.2.1 Program scope: Which vessels and processors will be included?

The three alternatives to restructure the observer program are primarily distinguished by scope, i.e., which vessels and processors would be included in the new program. The options with respect to scope form the basis for the three restructuring alternatives, and are displayed in Table 2-1 below.

Table 2-1 Program scope: Which vessels and processors are included in each restructuring alternative?

Area	*Vessel/Processor class*	*Alt. 3 (GOA-based)*	*Alt.4 (Tiers 3 and 4 only)*	*Alt. 5 (Comprehensive Alt.)*
GOA	Halibut vessels	Yes	Yes	Yes
	Groundfish CVs (all gears and sizes classes)	Yes	Yes	Yes
	Non-AFA inshore processors	Yes	Yes	Yes
	Pot CPs	Yes	Yes	Yes
	*Trawl CPs < 125'	Yes		Yes
	*Hook-and-line CPs <125'	Yes		Yes
	Trawl CPs ≥ 125'	Yes		Yes
	Hook-and-line CPs ≥ 125'	Yes		
BSAI	Halibut vessels	Yes	Yes	Yes
	Non-AFA CVs (all gears and size classes)		Yes	Yes
	Pot CPs		Yes	Yes
	AFA CVs <125'		Yes	Yes
	non-AFA inshore processors		Yes	Yes
	AFA CVs ≥ 125'			Yes
	*Non-AFA trawl & hook-and-line CPs <125'			Yes
	Non-AFA trawl & hook-and-line CPs ≥125'			Yes
	AFA inshore processors			Yes
	AFA motherships			Yes
	AFA CPs			Yes
	CDQ vessels and processors		Tier 3 and 4 vessels and processors are also included when fishing CDQ.	Yes

*Note that NMFS currently recommends placing hook-and-line and trawl CPs <125' (with the exception of AFA and CDQ CPs) in Tier 2 (100% coverage). These fleets could also be placed in Tier 3 and NMFS could choose to distribute 100% coverage on these vessels under an ex-vessel value fee.

Alternatives 3 and 4 present two distinct approaches to partially restructure the Observer Program. The scope of Alternative 3 is based on geography. Under Alternative 3, all groundfish fisheries in the GOA and all halibut fisheries throughout Alaska would be covered by the new program. By contrast, Alternative 4 is based on coverage levels irrespective of geography. Under Alternative 4, all halibut vessels, and in addition, all groundfish vessels and processors assigned to Tiers 3 and 4 (less than 100% coverage) would be covered by the new program and all vessels and processors assigned to Tiers 1 and 2 (100% or greater coverage) would be excluded. Table 2-2 compares the advantages and disadvantages of these two approaches for partial restructuring.

Table 2-2 Comparison of the advantages and disadvantages of the approaches in Alternatives 3 and 4

Issue	*Alt 3 (GOA-based)*	*Alt 4 (Coverage level-based)*
Sampling design and data issues	Because fisheries are generally managed by area, rather than size class, Alternative 3 would allow NMFS to design a complete sampling and data collection program for each GOA halibut and groundfish fishery.	NMFS would be dealing with multiple contractors (potentially under different programs) and would have control over observer deployments for only a subset of vessels in each fishery in which Tier 1 and Tier 2 vessels participate. This could make it more difficult to design coherent sampling programs and observer rotations for fisheries in which vessels from different tiers participate.
Cost-containment and contract efficiency	Geographic-based modules are likely to be simpler to design and bid on, because observer providers will be bidding on exclusive contracts to provide coverage for a specific geographic area or port. Also, increased potential for cost containment exists if observer providers can focus on discrete geographic areas, because there may be reduced down time and transportation costs, if observers do not need to be rotated between geographic regions.	Observer providers may find it more difficult to bid on contract modules that are focused on vessel size classes, or coverage tiers, rather than geographic areas, because they may not have adequate advanced knowledge of where the group of vessels they are bidding on will be fishing, and out of which ports they will be operating. A contract in which an observer provider is responsible for limited coverage of vessels across a broad geographic area may also increase costs, due to increased down time and transportation costs during observer rotations.
Disproportionate costs for smaller vessels	Alternative 3 would only address concerns about disproportionate costs for GOA vessel. It would not address concerns about disproportionate costs paid by small vessels operating in the BSAI.	Alternative 4 would address the issue of disproportionate costs for all vessels operating in Tiers 3 and 4, regardless of where they are operating off Alaska.

Complications with crossover issues and the management of two separate program	Contracting complexities and crossover issues could arise for vessels that are moving between the GOA and BSAI under Alternative 3. These could be mitigated to some extent, if subcontracting was allowed and if the same observer providers who earn contracts in the GOA are allowed to provide coverage in the BSAI. In this case, costs associated with the placement of observers would be more similar to those of Alternative 4.	Crossover issues would be minimized if a single contract for coverage follows Tier 3 and 4 vessels, regardless of where they operate off Alaska.

The restructuring alternatives do not include an exemption for groundfish vessels <60' LOA and halibut vessels, even though those vessels are not currently required to carry observers. In 1989, the decision was made to exclude such vessels from any coverage requirements, in part based on the contention that coverage requirements for vessels <60' represented a severe economic burden under the pay-as-you-go program, because average annual revenues for vessels <60' are less than one-third of average annual revenues for vessels in the 60'-124' size range. However, a fee program based on a percentage of ex-vessel revenues mitigates the problem of disproportionate costs for smaller vessels and makes their inclusion into the restructured Observer Program more economically feasible. While industry has expressed concerns about being able to accommodate observers on vessels of this size, observer programs in other regions have adapted to these constraints and these concerns are not insurmountable.

2.2.2 Coverage requirements

The issue of coverage levels arises with the implementation of a program that rescinds the current coverage levels based on vessel length and processing volume, and replaces them with one in which NMFS has more flexibility to decide when and where to deploy observers. However, some type of organizational structure is still necessary to categorize vessels and processors for the purpose of determining coverage levels. As a replacement for the existing vessel-length based categories, the following four tier system of coverage is proposed. Vessels and processors would be placed into one of the four coverage tiers, based on their fishery and operating mode. The purpose of designing this four-tier coverage system is to establish clear and uniform criteria for determining what level of coverage is required in each fishery. **The determination of which fishery sectors are placed into which tier is a decision point under Alternatives 3 - 5. Note that the tier classification is less relevant under Alternative 3, in which all groundfish vessels and processors in the GOA (and all halibut vessels in the GOA and BSAI) are included under the new program and assessed the same ex-vessel value based fee.**

The establishment of uniform criteria for determining coverage requirements will also assist the Council in determining what levels of coverage are necessary when new management programs are proposed. It should also be noted that placement of a particular fishery or vessel class into a particular coverage tier may or may not affect the type or amount of fee that would be selected. As provided in detail in Section 2.2.3, the Council has the option of establishing a uniform ex-vessel value fee that applies to all fisheries within the new program, or to establish separate fee programs for fisheries in the different coverage tiers.

The following is a description of the four proposed coverage tiers:

- **Tier 1 fisheries (200% coverage).** These are groundfish fisheries in which two observers must be present so that observers are available to sample every haul or delivery. Tier 1 fisheries are generally those in which observers are directly involved in the accounting of individual vessel catch or bycatch quotas.

- **Tier 2 fisheries (100% coverage).** These are groundfish fisheries in which one observer is deployed on each vessel and/or processor. In contrast to Tier 1, it is recognized that the observer will likely be unable to sample all hauls or deliveries, due to workload constraints and will, therefore, follow random sampling procedures, so that the vessel or processor will not know in advance which hauls or deliveries will be sampled. Under certain circumstances, vessels that would otherwise qualify for Tier 1 coverage could operate with a single observer (i.e., Tier 2), if they are operating under restricted hours, or under an alternative monitoring plan approved by NMFS, in which alternate technologies are used to monitor scales when the observer is absent.

- **Tier 3 fisheries (regular coverage, generally less than 100%).** *(This tier replaces the old 30% coverage requirement).* These are groundfish fisheries in which NMFS is dependent on observer coverage for inseason management, but in which 100% coverage on every vessel is unnecessary, because observer data is aggregated across a larger fleet. Vessels participating in Tier 3 fisheries can expect to receive coverage on a regular basis and will be required to carry observers when requested to do so by NMFS. However, the actual coverage that each vessel receives will depend on the coverage priorities established by NMFS, and the sampling plan developed for the individual fishery in which the vessel is participating. The actual coverage a particular vessel or processor receives could range from zero to 100%, but on a fleet-wide basis, coverage levels are more likely to average closer to 30%.

- **Tier 4 fisheries (previously unobserved fisheries).** These are groundfish and halibut fisheries in which NMFS has not previously deployed observers and, therefore, fisheries in which NMFS is not currently dependent on observer data for inseason management. Coverage levels in Tier 4 fisheries are expected to be low and infrequent at the outset of the program, until NMFS and the fishing industry gains experience with the issues involved with deploying observers on smaller vessels.

Under this new four tier structure, coverage levels would remain unchanged from the status quo for most vessels and processors that currently have 100%, or 200% coverage requirements. The biggest change would occur for vessels that currently have 30% coverage requirements, or no coverage requirements. Under the four tier structure, most current 30% vessels would fall into Tier 3, and could expect regular coverage at a level less than 100%. Most vessels that currently have no coverage requirements are proposed to be in Tier 4, and thus would be required to carry an observer when requested, but likely can expect such coverage to be relatively infrequent, especially in the initial years of the program.

In addition, this analysis does not propose an annual mechanism through which a fishery would change from one tier to the next, if it is determined that coverage levels need to be increased or decreased. Currently, all coverage levels are established in regulation and any changes to existing coverage requirements must be implemented through notice and comment rulemaking. Based on NOAA GC guidance, this analysis assumes that formal rulemaking would also be necessary to change fisheries from one tier to another under the new system. Flexibility would still be substantially increased through the proposed system, however, as the coverage levels for fisheries within Tiers 3 and 4 could be shifted and modified on an inseason basis.

The following sections attempt to define, in a general manner, the fishery characteristics that would lead to the assigning of a particular fishery or vessel class into a particular tier. Note that this is simply an attempt to identify some of the shared characteristics of fisheries within each tier level, but there are also many unique aspects to each fishery that may also lead to it being assigned a particular tier level. In the past, NMFS has not attempted to identify general fishery characteristics that would lead to specific coverage levels. Rather, NMFS has established coverage levels for each specific fishery on a case-by-case basis, through careful examination of the management and enforcement needs of the fishery or management program in question. Therefore, the following lists of characteristics should not be taken as requirements that determine the tier level of a particular fishery. Rather, they represent a set of guidelines to provide the Council with more standardized criteria for assigning fisheries to specific tier levels. The assignment of fisheries to specific tier levels is only a decision point for the Council under Alternatives 3 - 5.

Characteristics of Tier 1 fisheries

Tier 1 fisheries may have several or all of the following characteristics that make it necessary to have an observer available for sampling at all times the vessel or processor is operating. Among these characteristics are:

- *Observer is directly involved in monitoring individual vessel catch quotas*. In both the AFA and CDQ fisheries, observers onboard CPs, motherships, and inshore processors are directly involved in monitoring individual vessel catch quotas. These quotas may take various forms, such as CDQ allocations, or AFA cooperative allocations and groundfish sideboards. However, the unifying characteristic is that the operation is under an exclusive quota, and catch data from each is not aggregated across the fishery.

- *Observer is directly involved in monitoring individual vessel bycatch quotas.* In the CDQ and AFA fisheries, and under the new groundfish retention standards for the BSAI non-AFA trawl CP fleet, vessels are operating under some form of individual or cooperative based bycatch quotas. In the CDQ fishery, vessels operate under CDQ prohibited species catch allocations. In the AFA fishery, CPs operate under prohibited species catch sideboards that are allocated to each vessel. And, in the BSAI non-AFA trawl CP fisheries, each CP $\geq$125' will be subject to an individual vessel groundfish retention standard (GRS), under Amendment 79 to the BSAI FMP. The GRS functions as an individual vessel limit on the amount of groundfish that each vessel may discard.

- *Catch is being processed and/or discarded, and cannot be observed at a later date*. This is a characteristic shared by all CPs, in that there is no opportunity for shore-based monitoring because the catch is processed at sea. In contrast, because CVs deliver their entire catch to shoreside processors, the monitoring of inshore fisheries can be split between at-sea and shore-based observers.

- *Observer is involved in monitoring catch from critical habitat*. On CPs fishing for Atka mackerel in the Aleutian Islands Subarea, observers are directly involved in monitoring removals of Atka mackerel from areas designated as critical habitat for the endangered Steller sea lion. NMFS determined that it was important to have an observer monitor every haul to obtain accurate estimates of removals from critical habitat and avoid a jeopardy finding.

- *Statutory requirement for two observers*. Notwithstanding the other criteria for Tier 1 fisheries, AFA CPs are required by statute to carry two observers any time they are harvesting or processing groundfish of any kind in the BSAI or GOA.

As is displayed in Table 2-3, no vessels or processors are proposed to be included in Tier 1 that are not already subject to 200% coverage requirements. However, as new management programs are developed that share the characteristics of Tier 1 fisheries, the number of vessels and processors in Tier 1 could be increased under a subsequent amendment.

Characteristics of Tier 2 fisheries

Tier 2 fisheries share several characteristics that make 100% coverage necessary, but that do not elevate coverage requirements to the Tier 1 (200% coverage) level. These characteristics are not as finely defined as those for Tier 1. Yet there are certain fishery characteristics that have traditionally led the Council and NMFS to require 100% coverage.

- *Relatively large volumes of groundfish harvested*. When designing a coverage program for a fleet with disparate levels of groundfish harvested, it makes sense to concentrate coverage on those vessels that harvest the largest volumes of groundfish, because doing so ensures that a larger portion of the overall groundfish harvest is observed. The current 100% coverage requirement, which is based on vessel length, has served as a useful proxy, in that vessels greater than 125' generally tend to harvest larger volumes of groundfish than vessels under 125'. It may be especially important to require 100% coverage on vessels that are both high-volume and that operate independent of a larger fleet across which data can be extrapolated. Trawl CPs ≥125' operating in the GOA are an example of high-volume vessels that often operate alone in an area fishing for flatfish or rockfish, while the bulk of the shoreside fleet operating in that area is fishing for pollock or Pacific cod.

- *Potential for relatively high levels of bycatch*. Trawl CPs operating in the GOA flatfish and rockfish fisheries are examples of vessels that have the potential to catch large quantities of halibut PSC and other species of potential concern such as certain rockfish. In addition, a single large CP may have the harvesting power of several smaller CPs. Therefore, the Council and NMFS may conclude that trawl CPs ≥125' operating in the GOA should continue to have 100% coverage as is currently required under the status quo.

- *At-sea processing precludes alternative monitoring approaches onshore*. Because CPs sort and process catch at sea, catch composition and bycatch data can only be obtained by onboard observers on such vessels, whereas monitoring of CVs that do not sort at sea (i.e. vessels directed fishing for pollock) can sometimes be accomplished through a combination of at-sea and shoreside observers.

- *Economically or operationally unable to operate in Tier 1*. Certain small vessels that would otherwise be operating in Tier 1 fisheries may be unable to carry two observers, due to economic or operational constraints. In these instances, such vessels may be allowed to operate as Tier 2 vessels, but with constraints on either their volume, or operating schedule, to insure that a single observer is able to adequately observe the volume of groundfish harvested. The new groundfish retention standard (GRS) under Amendment 79 will apply to non-AFA CPs ≥125', as the Council chose not to include vessels <125'. Amendment 79 provides for an "alternative scale-use verification plan", which would allow vessels subject to the GRS to submit to NMFS a plan for operating with just one observer where all hauls are monitored under 12 hour work day restrictions. Amendment 79 will be effective January 20, 2008.

- *Individual catch or bycatch quota monitoring split between vessel and processor*. In some instances, the monitoring of individual vessel quotas on CVs may be split between the vessel and processor. In this case, the vessel observer may be monitoring certain aspects of the catch, and a

plant observer may assist with monitoring the portion of the catch that is retained and delivered. CVs operating in CDQ fisheries fall under this category.

Characteristics of Tier 3 fisheries

Tier 3 fisheries share several characteristics that make regular coverage necessary, but that do not elevate coverage requirements to the Tier 1 or Tier 2 level. Generally, Tier 3 fisheries are those that have 30% observer coverage requirements under the current system.

- *Observer data used for inseason management purposes*. The primary threshold between Tier 3 and Tier 4 fisheries is that Tier 3 fisheries are those in which observer data are necessary for inseason management of catch or bycatch quotas, but discard and PSC rates are aggregated across a large fleet, making 100% coverage of each vessel unnecessary. Generally, these are the fisheries that currently have 30% coverage requirements.

- *Vessels not operating under individual bycatch quotas.* In Tier 3 fisheries, vessels are not operating under individual bycatch quotas, meaning that bycatch data from observed vessels can be extrapolated to unobserved vessels operating in the same time and area. Therefore, it is not necessary to obtain bycatch data from every vessel in order to generate bycatch *estimates* for the entire fishery.

- *If vessels are operating under individual catch quotas and monitoring is done onshore*. Even if vessels are operating under a system of individual vessel quotas, 100% coverage may not be necessary if the primary location for catch accounting is the shoreside processor, rather than the vessel. AFA pollock CVs and sablefish IFQ vessels are two examples of vessels that are operating in individual quota-based fisheries, where the primary catch accounting is done onshore rather than at-sea. In both of these instances, vessels are subject to a 100% retention requirement for all species for which individual vessel quotas apply to ensure that all fish harvested can be properly accounted for onshore, although onboard confirmation is only possible on vessels that carry an observer.

Characteristics of Tier 4 fisheries

The groundfish and halibut fisheries that are not under Tiers 1 through 3 would be categorized as Tier 4 fisheries. In all instances, these are fisheries that have no coverage requirements under the present system. At the outset of the program, NMFS anticipates that limited coverage in Tier 4 fisheries would be used primarily for special data needs and research rather than inseason management. Halibut vessels, jig vessels, and groundfish vessels <60' are proposed to be in Tier 4. In the initial years of the program, NMFS could deploy observers on these vessels when necessary to collect needed baseline data or to respond to specific data needs, but would not deploy observers on a regular basis to collect inseason management data. Vessels participating in Tier 4 fisheries would be required to carry observers when requested to do so by NMFS. But because coverage is expected to be lower than in Tier 3 fisheries, vessels in Tier 4 may not be expected to follow the same procedures as the vessels in Tier 3 that receive more regular coverage. In the future, the dividing line between Tiers 3 and 4 may become less meaningful as NMFS and the industry gain greater experience with deployment of observers in Tier 4 fisheries.

Note that one of the primary reasons NMFS anticipates lower coverage levels for Tier 4 fisheries is because none of the vessels in Tier 4 fisheries have previously been required to carry groundfish observers. NMFS understands that there are a variety of logistical issues surrounding the deployment of observers on smaller vessels. As NMFS and industry gain greater experience with the deployment of observers in Tier 4 fisheries, coverage levels might be expected to become more regular and the dividing line between Tiers 3 and 4 may become less distinct. If desired, the division of these two tiers could be eliminated in the future, under a subsequent amendment.

- *Observer data not used for inseason management.* In a variety of fisheries, observer data are not currently used for inseason management purposes and vessels are managed through the use of landings data, provided by processors. Examples include the halibut IFQ fishery and the groundfish jig fishery.

- *Low volume of fish harvested.* In a variety of fisheries, the volume of groundfish harvested by each vessel is so low that coverage is more efficiently applied to vessels that harvest larger volumes. For example, it may take several smaller <60' hook-and-line catcher vessels to equal the daily volume of a single hook-and-line catcher processor vessel in the 60' - 125' vessel size class. Therefore, an observer operating on a fixed gear vessel <60' would only be able to sample 1/10th of the volume of groundfish as an observer operating on the larger vessel. If necessary, volume thresholds could be established to ensure that only low volume vessels remain in Tier 4 and that small vessels that exceed certain catch tonnage thresholds could be assigned to Tier 3 under a future amendment.

- *Currently have no coverage requirements.* All of the fisheries currently proposed for inclusion in Tier 4 currently have no coverage requirements. No vessels that currently have 30% coverage requirements or higher are proposed for inclusion in Tier 4, and no vessels that currently have no coverage requirements are proposed to be included in Tier 3 or higher. However, as noted above, tier assignments could be changed in the future to more efficiently deploy limited observer resources.

Proposed tier classifications for vessels and processors

The proposed classification of each fishery into each of the four tiers is shown in Table 2-3. Note that tier classification is less relevant to Alternative 3, as that alternative includes all vessels and processors in the Gulf of Alaska under the new program, and assesses an ex-vessel value based fee. While the tier classifications shown in this table closely match the existing coverage requirements, there are instances where vessel and processor categories that currently have 100% observer coverage requirements are proposed to be included in Tier 3 (regular coverage less than 100%). There are also instances in which catcher processors that are currently subject to 30% coverage are proposed to be in Tier 2 (100% coverage). These instances are noted in the following section.

Table 2-3 Proposed tier levels for vessels and processors under Alternatives 3 - 5

Vessel/processor/fishery	*Current coverage requirements*	*Proposed tier classification*
AFA CPs	200% coverage	Tier 1
CDQ CPs	200% coverage	Tier 1
AFA motherships	200% coverage	Tier 1
AFA inshore processors	1 observer for each 12 hour period (i.e. 2 observers, if plant operates more than 12 hours/day)	Tier 1
Non-AFA trawl CP vessels ≥125' in the BSAI	100% coverage	Tier 2 /Tier 1[1]
CPs fishing for Atka mackerel in the Aleutian Islands Subarea	200% coverage	Tier 1
Non-AFA trawl CP vessels <125' in the BSAI	30% coverage	Tier 2/Tier 1[2]
Non-AFA trawl CP vessels ≥125' in the GOA	100% coverage	Tier 2
CVs >60' and pot CPs fishing CDQ	100% coverage	Tier 2
Non-AFA Trawl H&G vessels <125' in the GOA	30% coverage	Tier 2
Non-AFA inshore processors	0%, 30%, or 100% based on processing volume	Tier 3
Trawl CVs ≥125' (Including CDQ and AFA)	100% coverage	Tier 2/Tier 3[3]
Trawl CVs 60'-125' (Including CDQ and AFA)	30% coverage	Tier 3
Hook-and-line CPs ≥125'	100% coverage	Tier 2
Hook-and-line CPs 60'-125'	30% coverage	Tier 2
Hook-and-line CVs 60'-125'	30% coverage	Tier 3
Hook-and-line CVs ≥125'	100% coverage	Tier 3
Pot vessels ≥60'	30% coverage	Tier 3
Halibut vessels	no coverage	Tier 4
Jig vessels (all sizes)	no coverage, or 30% depending on vessel length	Tier 4
Groundfish vessels <60'	no coverage	Tier 4

[1]The final rule for BSAI Am. 79 was published on April 6, 2006 (71 FR 17362). This rule requires at least two level 2 observers each day a non-AFA trawl CP ≥125' is harvesting or processing groundfish in the BSAI. NMFS may authorize the vessel to carry only one lead level 2 under an alternative processing plan. This rule will be effective January 20, 2008.
[2]Note: 200% coverage is proposed under BSAI Amendment 80. This amendment has not yet been implemented; final Council action was taken June 2006.
[3]While trawl CVs ≥125' are currently proposed to be in Tier 2 (100% coverage requirement), NMFS notes that assignment to Tier 3 may be possible in the future, combined with a video monitoring requirement.

Significant coverage changes from the status quo

Note that inclusion of a fishery/vessel class in the proposed new four-tier coverage system is dependent on the inclusion of that fishery/vessel class in the overall restructured observer program. In other words, the tier structure only applies to those fisheries that are included in the preferred alternative. If a vessel class is not included in the preferred alternative, it would remain in its existing coverage category under the current pay-as-you-go regulations.

Under the proposed four-tier structure, most fisheries would fall into the tier that relates to their current coverage level with four potential exceptions: (1) CVs ≥125', (2) hook-and-line CPs <125', (3) non-AFA trawl CPs <125' and (4) non-AFA inshore processors. The rationale for these changes is as follows:

Catcher vessels ≥125'

Hook-and-line CVs ≥125' are proposed in this document to be in Tier 3 under the restructuring alternatives; compared to the 100% coverage requirement under the status quo. Trawl CVs ≥125', including CDQ and AFA, are currently proposed to be in Tier 2 under the restructuring alternatives (see Table 2-3). The proposed tier level for trawl CVs ≥125' does not differ from the status quo coverage requirement of 100% observer coverage, but warrants some discussion, due to the ***future*** potential to classify this sector in Tier 3. Most CVs ≥125' are AFA vessels that operate primarily in the AFA pollock and BSAI Pacific cod fisheries. Because such vessels are subject to AFA groundfish sideboards in the GOA, they have only operated to a limited extent in the GOA, since the implementation of the AFA. Therefore, the two fisheries of primary interest are the AFA pollock and BSAI Pacific cod fisheries. In both of these fisheries, CVs over and under 125' operate side-by-side and deliver to the same processors.

For these reasons, analysts contend that there is no compelling reason to subject these two components of the AFA fleet to different coverage levels. In the case of the pollock fishery, unlike the case of AFA CPs that must weigh their catch as it is harvested, the primary location for catch accounting for CVs is the processing plant, rather than the vessel, and all pollock landings are weighed on certified scales and observed by a plant observer, albeit many hours or even several days *after* being caught. The primary task of vessel observers on AFA vessels is to collect PSC data (primarily salmon and herring) and to ensure that pollock and Pacific cod are not discarded, in violation of full retention requirements. While larger vessels tend to harvest and deliver larger volumes of pollock, the disparity between AFA CVs greater and less than 125' is not sufficient, **in and of itself**, to require higher levels of coverage on vessels ≥125'. However, note that all CVs have some ability to sort their catch at-sea, and larger CVs have the capacity to do extensive sorting, because they load their fish holds via conveyer systems. This raises monitoring and enforcement concerns about pre-delivery discarding, if observers are not present. On vessels directed fishing for pollock, fishing activities are such that nearly all hauls can be observed when an observer is present. Requiring 100% coverage on these larger CVs helps to deter illegal sorting activities at sea, and this document does not propose to reduce coverage on these vessels at this time.

In the BSAI Pacific cod fishery, the operational disparity between AFA CVs greater than and less than 125' is even smaller. Many of the larger AFA CVs have been designed specifically to operate in the high-volume mid-water pollock fishery, such that they do not generally engage in bottom trawling for Pacific cod. Because it is less efficient for them, compared to smaller, more versatile CVs, the number of AFA CVs ≥125' that operate in the BSAI Pacific cod fishery is smaller than in the AFA pollock fishery. The result is less disparity in the groundfish volumes harvested by vessels greater than and less than 125' in the BSAI Pacific cod fishery.

As stated previously, trawl CVs ≥125', including CDQ and AFA, are currently proposed to be placed in Tier 2 under the restructuring alternatives. NMFS believes it may be appropriate to consider including all

AFA CVs in Tier 3 in the future, only with the inclusion of a video monitoring requirement to ensure that catch is not sorted or discarded at sea. Note that video monitoring faces several unresolved implementation issues, including confidentiality and the cost of interpreting the data. A rigorous at-sea video monitoring program for the AFA inshore sector could greatly reduce the number of observers required to monitor this fleet, because species composition and PSC monitoring could, at least in theory, be accomplished at the processing facility. Because pollock fisheries tend to have relatively low bycatch and AFA CVs are required to deliver all catch, monitoring for compliance with "no-discard" regulations in the AFA inshore CV fleet may be the most appropriate place in which monitoring technologies such as video could be tested as an alternative to traditional coverage. Additional information on the current state of video monitoring technology is contained in Appendix 1.

Hook-and-line and non-AFA trawl CPs <125'

Hook-and-line CPs <125' operate primarily in the BSAI Pacific cod fishery, and to a lesser extent in the halibut/sablefish IFQ fishery and GOA Pacific cod fisheries. The hook-and-line CP fleet in the BSAI is divided between vessels under and over 125' that currently face 30% and 100% coverage requirements, respectively. In 2003, 11 hook-and-line CPs <125' and 29 hook-and-line CPs ≥125' operated in the BSAI Pacific cod fishery. However, despite the length difference, these two groups of hook-and-line CPs generally operate in an identical manner, and often harvest similar volumes of groundfish. This is because some hook-and-line CPs were built right up to the 125' size limit and have similar operational capacities as vessels greater than 125'. This is especially the case in the hook-and-line fishery where catch per unit effort is less dependent on horsepower than in the trawl fisheries. In contrast to trawl vessels, the speed at which both hook-and-line and pot vessels are able to retrieve gear and harvest fish is more dependent on the skill of the crew, than on the horsepower or length of the vessel.

In 2003, seven trawl CPs <125' operated in the GOA, and two in the BSAI. Under current regulations, these vessels are subject to 30% coverage. Many of these vessels are former CVs that were converted to at-sea processing by adding plate freezers and converting their fish holds into freezer holds. These vessels generally target Pacific cod, flatfish, and rockfish in the GOA and BSAI. The Council took final action on BSAI Amendment 80 in June 2006. As approved, Amendment 80 would allow non-AFA trawl CPs to form cooperatives. All vessels fishing under Amendment 80 would likely be required to carry two observers at all times they are fishing in the BSAI. Additionally, similar monitoring standards are likely to be proposed for all CPs under the Central GOA rockfish pilot project. If these two actions are adopted, trawl CPs <125' likely will be placed in Tier 1, and restructuring the observer program will not affect coverage levels for these vessels. If these actions are not adopted, these vessels would likely be placed in Tier 2 (100% coverage).

NMFS currently uses both observer data and weekly processor reports (WPRs) to account for catch on CPs. When observer data are available, they are used as the record of catch. When they are not available, the WPR is used. NMFS considers the WPR to be an inferior tool for total catch accounting. Catcher processors process all of their groundfish catch offshore, and vessel operators report the product weight of groundfish catch on WPRs. To convert this production to an estimate of the round weight of fish, NMFS managers apply a published product recovery rate (PRR) to the production weights, and add an estimate of discard, which is also reported on WPRs. NMFS considers observer data to be a better measure of total catch than self-reported data for the reasons described below. These reasons apply to all CPs, regardless of gear type. While these same data quality arguments could be made for CVs and the "inshore" data reporting mechanisms, the discussion below only is intended to justify increased observer coverage on CPs.

- Observers (deployed on both CVs and CPs) undergo rigorous post cruise debriefings, where their sampling methods are assessed for consistency with observer program sampling policies

and observer data are reviewed for errors and accuracy. Because observers are debriefed by NMFS in a consistent manner, observer collected data, in general, help to create a level playing field for all vessels. Problems with observer data are addressed within NMFS in an efficient manner. NMFS Enforcement may audit WPRs for errors, but these activities are costly and are undertaken far less consistently that the observer debriefing process. Additionally, recourse for misreported data on WPRs is through enforcement actions. Occurrences of misreported WPR data could take considerable time to resolve.

- All CPs are required to provide computer hardware and communications devices for use by an observer to transmit data to NMFS in a timely manner. NMFS installs software which facilitates data entry, initial screening of the data for errors, and communicates with NMFS software at the observer program. For the most part, these data are available for use by inseason managers the day after data collection. In contrast, WPRs are reported on a weekly basis. Additionally, out of 19 CPs less than 125 feet that operated in 2005, 10 forwarded their WPRs to NMFS via fax or email. WPR information received by FAX or email must be keypunched into an electronic format for use by the catch accounting system, and there could be considerable lag time before this information is available to managers.

- Observers collect information on a finer scale than is available through the WPR reporting process. For example, vessels may fish in two or three separate reporting areas and aggregate production by week and area. In contrast, observers collect haul by haul data and report locations for each haul, and species composition of sampled hauls.

- Observer data is more consistently reported. In 2005, 30 WPRs had not been received by NMFS as of November 3. In contrast, observer data are consistently available when an observer is onboard.

- As NMFS manages species on an increasingly finer scale as a result of more complicated management programs recommended by the Council, NMFS becomes more reliant on accurate speciation of catch. For example, the Council and NMFS are considering separating management of dusky and dark rockfish, which are sometimes difficult to differentiate. While many fishermen are experts at species identification, they are rarely formally trained. Observers undergo a minimum of 120 hours of training with considerable time spent on species identification. Every observer is tested on their ability to identify fish, and their identifications are verified by NMFS staff during the debriefing process, and likely improves accuracy in terms of species identification.

- Observers sample for all species and this information is expanded to represent a proxy for total catch. In contrast, only retained and processed species are counted and reported on WPRs. In most cases, operators only visually estimate discards so the WPR based discard composition and may not be accurate.

To illustrate why NMFS considers observer collected data to be a better determination of total catch on CPs, Table 2-4 compares species weights from observers with species weights for WPRs for hook-and-line CPs fishing in the BSAI in 2004 (including CDQ). In all cases except one, observer collected weights are higher than WPR reported weights. Some of these observer collected weights are reported as actual weights from NMFS certified scales. Additionally, many CPs did not report some non-target species. These vessels may not have harvested these species; however, high abundance species commonly incidentally caught in these fisheries are unreported on WPRs, but reported by observers. NMFS cannot verify the accuracy of incidentally harvested species reported on WPRs. **For the reasons**

described above, NMFS continues to recommend placing all hook-and-line CPs and non-AFA trawl CPs in Tier 2 (100% coverage).

Note that Table 2-4 provides only a point estimate for observer data, because the current catch accounting system does not provide a statistical estimator. NMFS has conducted some work (Volstad, et.al, 1996) to look at statistical estimators of catch based on observer data, but current information is not available.

Based upon the WPR, the system calculates the round weight of fish from reported fish products. Product weights are converted to whole fish weights by dividing the product weight by the "standard" product recovery rate for that species/product combination. This method does not take uncertainty into account for product weight, nor variation in product recovery rates, across operations, geographic area and season (which can significantly impact fish size and condition), etc., etc. Back-casting "round weight equivalent" measures from final product reports is an imperfect science, at best. It is inappropriate to fault industry (which is *not* required to submit "pre-processed catch weights") for deviations between these estimates. Nonetheless, it is not possible to identify whether the source of error is due to misreporting or calculating round weights using standard product recovery weights. In any case, differences between estimates based on observer data and WPRs is of concern to managers and this information is provided here.

Table 2-4 Comparison of estimates of species weights from observer and WPR sources, derived by NMFS for the 2004 hook-and-line CP fishery in the BSAI

	Est. based on Observer Reports		*Est. based on WPRs*		*Difference in Estimates*	
Species	*MT*	*Processors*	*MT*	*Processors*	*MT*	*Processors*
Alaska Plaice	0	8	*	*	*	*
Atka Mackerel	35	15	13	6	23	9
Arrowtooth	1,262	29	780	28	482	1
Other Flatfish	133	29	55	14	78	15
Flathead Sole	543	29	357	26	186	3
Turbot	830	28	693	24	137	4
Northern Rockfish	31	23	18	13	13	10
Other	16,768	29	12,374	29	4,394	-
Pacific Cod	91,236	29	84,345	29	6,891	-
Pollock	4,710	29	2,705	29	2,005	-
Pacific Ocean Perch	4	16	0	4	3	12
Rougheye Rockfish	36	16	10	9	26	7
Other Rockfish	118	24	62	19	55	5
Rock Sole	32	29	15	16	16	13
Sablefish	117	22	141	18	(23)	4
Squid	*	*	*	*	*	*
Shortraker Rockfish	57	21	39	13	18	8
Yellowfin Sole	549	29	457	20	92	9
Total	116,461		102,065		14,396	

Source: NMFS observer data and WPR data, 2004.
Note: * indicates confidentiality restrictions, which prevents NMFS from reporting data from less than three vessels.

Non-AFA inshore processors

Under the existing regulations, coverage requirements for non-AFA inshore processors are based on processing volume with higher-volume processors subject to 100% observer coverage requirements. Under the proposed new tier classification scheme, all non-AFA inshore processors would see a reduction in observer coverage requirements, by be grouped into the Tier 3, < 100% coverage category. As such, these inshore plants would be subject to observer coverage when requested to receive an observer by NMFS. This would provide NMFS with flexibility in deployment of observers to meet dynamic science and management goals. Additionally, some shoreside processors have been allowed to share observers in the past to accommodate concerns with observer costs, and there have been instances where deliveries have gone unobserved. Under a restructured observer program, each plant would pay a share of each delivery, and NMFS could deploy observers to observe deliveries as needed, thus alleviating some of NMFS' concerns associated with current observer deployments at plants in Kodiak.

Because plant observers at non-AFA plants are not directly involved in catch accounting, as they are at AFA plants, and do not collect information used for inseason management purposes, there is a less

compelling reason to maintain 100% coverage at all higher-volume processors if such observers may be more useful when deployed elsewhere.

It should be noted here that proposed structural changes to observer coverage on catcher vessels (i.e., proposed reduction of onboard observers for some Tier 3 CVs) and at non-AFA inshore processors (i.e., proposed reduction of required observer coverage at some Tier 3 non-AFA shoreside plants) need to be carefully coordinated to meet catch accounting, enforcement, and biological information needs. As previously cited, advances in technology and changes to management programs could feasibly reduce observer coverage on catcher vessels, with the expressed expectation of transferring some of the catch accounting duties to the observers deployed at shoreside processors. Clearly, this could not be achieved if the plant did not have observer coverage for all such landings from unobserved CVs. This would demand a very significant level of coordination between CVs, the plants they deliver catch to, and observer deployment agents. Managers would be required to gather relatively detailed operational information to make informed decisions about observer deployments, relative to limited observer resources and the benefits of deploying observers at inshore processors or on catcher vessels. These deployment patterns would likely be modified over time as managers learn to increase information gathering efficiency and new information needs are identified.

In sum, recall that inclusion of a fishery/vessel class in the proposed new four-tier coverage system only applies to those fisheries that are included in a restructuring alternative (Alternatives 3 – 5). The tier structure does not apply to the Council's preferred alternative (Alternative 2).

Inseason deployment issues

Under the proposed tier structure in the restructuring alternatives, decisions about when and where to deploy observers would be a major issue in Tier 3 fisheries and a lesser issue in Tier 4 fisheries. In Tier 1 and Tier 2 fisheries, all vessels and processors would be required to carry observers at all times and therefore, negate the need for a complex decision-making process to determine how to deploy observers. However, a service delivery model which allows NMFS to determine which observers are deployed to which vessels in Tier 1 and Tier 2 fisheries could better ensure that the most experienced and highly-skilled observers are placed where they are most needed, thus improving overall data quality.

Information on the proposed inseason deployment procedures anticipated to be used by NMFS is provided in Section 4.3. NMFS continues to study alternative methods to optimize the deployment of observers within specific fisheries to maximize the utility of data generated by a given number of observers. Regardless of the results of these studies, NMFS asserts that the observer program and inseason managers should be provided with the greatest degree of flexibility to manage inseason deployment of observers in an optimal manner.

2.2.3 Funding mechanism

All of the restructuring alternatives (Alternatives 3 – 5) contained within this analysis anticipate funding the new observer program through some combination of user fees and direct Federal funding. Federal funding may be necessary to get the new program started, cover some direct observer program costs if industry fees are inadequate, and cover agency costs associated with implementing and maintaining the program. Therefore, it should be understood that decisions related to the type of user fee would not preclude the possibility of obtaining Federal funding to cover observer deployment costs. There are several decisions related to the funding mechanism under each restructuring alternative. **Recall that these decision points do not apply to the Council's preferred alternative (Alternative 2).** This section outlines the primary issues and concepts relevant to the funding mechanism under Alternatives 3 – 5:

- Types of fee (ex-vessel value or daily observer fee)
- Uniform or variable fees
- Supplemental fee options for special programs
- Initial fee percentage
- Process for adjusting fee percentages
- Fee collection mechanism
- Start-up funding and Federal funds
- Restriction on the use of fee proceeds

Principles for a fee program

In considering options for user fees, NMFS, Council staff, and the OAC developed several principles to guide the choice of a funding mechanism:

1. *User fees should be broad-based* in that all participants in the program pay a share. But the fees should also be limited to only those vessels and processors that receive coverage under the program. Fees and coverage under the program should be parallel so that no one receives coverage without paying the fee, but no one has a fee imposed on them without receiving the benefit of coverage under the program. The intent of this objective is twofold. First, to prevent "free riders" who benefit from coverage through the program, but do not participate in its funding; and second, to prevent fisheries or sectors that are not participating in the program from having to subsidize observer coverage for vessels that are participating. For fisheries with less than 100% coverage, this principle would apply at the fleet level, rather than individual vessel level in that all vessels would contribute towards financing the program, but observers may only be deployed on a subset of vessels within the fleet.

2. *User fees should be fair and equitable*. One of the longstanding criticisms of the current "pay-as-you-go" program is that some operations pay a disproportionately high percentage of their gross revenues for observer costs (and some pay a disproportionately low proportion). In extreme instances, observer costs for a particular vessel may be prohibitive in that they exceed what would otherwise be the vessel's expected net revenues, and the vessel owner is precluded from fishing. At the same time, the intent of this objective is also to prevent 'free riders' among industry who benefit from the data used to manage their fishery, but who do not participate in funding or have coverage requirements (e.g., halibut boats, <60' boats).

3. *User fees should not be directly linked to actual coverage levels when coverage levels are less than 100%.* It may seem logical to link user fees to the actual coverage needs or coverage levels in a particular fishery. However, one of the problems identified with the current "pay-as-you-go" system is that coverage levels are inflexible and difficult to adjust based on management needs. An important advantage of the proposed restructuring is increased flexibility in determining how observers should be deployed among fisheries. However, if every change in the coverage level for a particular fishery also resulted in a change in the fee for that fishery, then every adjustment of coverage levels would be a politically-charged decision that would require Council action and notice-and-comment rulemaking. Such a system would greatly restrict the flexibility of managers to modify coverage levels in a timely manner to respond to changing management needs. This principle, however, is not relevant to fisheries that have 100% or greater coverage levels mandated in regulation or statute, due to their specific individual vessel monitoring needs (e.g., Tier 1 and Tier 2 fisheries), as these coverage levels are not expected to change.

4. *User fees should be easy to collect without undue burden on industry*. Vessels and processors are already faced with considerable paperwork and reporting burdens. A new user fee should be designed to work within the current recordkeeping and reporting system to the extent possible, without imposing unnecessary new paperwork burdens on industry.

Fee based on percentage of the ex-vessel value of landed catch

While a wide variety of fee types are theoretically possible and could be used to raise funds to support observer coverage, the type of fee that best meets the principles outlined above is a fee based on the ex-vessel value of landed catch. Fees based on the ex-vessel value of landed catch are the most commonly used type of fee in the North Pacific, as both the original Research Plan and the halibut/sablefish IFQ program use such fees. For purposes of this analysis, ex-vessel value fee would be calculated as a percentage of the price paid (both monetary and non-monetary) for shoreside groundfish landings, or as a percentage of standard price applied to round-weight equivalent for each groundfish species. The use of standard and actual prices and implementing a fee program for vessels that don't have shoreside landings (CPs and motherships) is discussed below.

Advantages of an ex-vessel value fee

- *Equity*. An ex-vessel value fee is perhaps the most equitable method of funding observer coverage, because it is based on the value of the resource each operation uses. An ex-vessel value fee is commensurate both with each operation's ability to pay and the benefits received from the fishery. Under the existing pay-as-you-go program, some smaller vessel operators face observer costs that are disproportionately high relative to their revenue, which is a concern identified in the problem statement.

- *Broad-based approach.* An ex-vessel value fee is the easiest type of fee to apply on a universal basis to all participants in the restructured observer program. That is because the fee can be assessed at the time of each landing, regardless of how large or small the landing. The current system in which vessels pay for their own coverage exempts all vessels that do not have coverage requirements, even though their fisheries are managed by data collected by observers on larger boats that do have required coverage.

- *Predictability*. A fee that is withheld at the time of landing is likely easier for fishermen to predict and plan for, because they need not worry about maintaining sufficient funds in the future to pay for coverage. Fees imposed on a yearly or quarterly basis and collected after their deliveries would require fishermen to set aside sufficient funds to pay for future coverage fees. This may be difficult for some operations that may not know how much revenue to set aside for future fee payments, because they may not know how many future fishing days to expect.

- *Easier to collect.* An ex-vessel value fee that is automatically withheld at the time of landing by the processor would likely be the easiest type of fee to assess and collect, because the processor knows how much was paid for the fish. The existing electronic reporting software used by processors to report landings to NMFS could likely be modified by or replaced with a system that automatically generate fee assessments, relieving processors of the task of calculating fee amounts. However, this advantage would not apply if the fee is collected after-the-fact on an annual or quarterly basis by NMFS through direct billing of fishermen.

Disadvantages of an ex-vessel value fee

- *Fee revenues not directly linked to coverage costs.* Because the fee revenues would not be directly related to observer coverage costs, it is highly likely that the program would experience revenue shortfalls or surpluses relative to the amount of observer coverage desired. The amount of revenue generated by an ex-vessel value fee depends on a variety of factors including: (1) the fee percentage, (2) ex-vessel prices for species covered by the program, and (3) the amount of total landings. Observer coverage costs also depend on various factors including: (1) the daily rate charged by observer providers, (2) the number of vessels participating in a fishery, (3) season lengths, and (4) the desired coverage levels. Given that fee revenues and coverage costs are likely to vary independently from year to year as a result of factors that may be difficult to predict or control, it is unlikely that an ex-vessel value fee program could be designed to exactly match coverage costs.

- *Fee percentages could be difficult to adjust.* Given recent guidance on framework measures, it is unlikely that an ex-vessel value observer fee could be designed such that the fee percentage could be adjusted quickly or automatically. Recent guidance suggests that the fee percentage would need to be established in regulation, and any change in the ex-vessel value fee percentage would require notice and comment rulemaking, and economic analysis of the impacts of the proposed change. Therefore, it is unlikely that fee percentages could be adjusted in a timely manner to account for changing prices, landings, and coverage costs.

Types of fisheries that lend themselves to an ex-vessel value fee program

The type of fisheries for which an ex-vessel value fee may be most appropriate are those in which coverage levels are less than 100%, and observer data are used to estimate activity on unobserved vessels. The Pacific cod fishery in the GOA fits this description in that the catch is split primarily between vessels with 30% coverage requirements, and vessels with no coverage requirements. At present, few vessels with 100% coverage requirements participate in this fishery. In the GOA Pacific cod fishery, observer data are used by inseason management, primarily to generate fleet-wide halibut bycatch rates for each gear type, and for scientific purposes, such as stock assessment.

An ex-vessel value fee would allow NMFS to collect observer funds from all participants in the fishery instead of just the subset of vessels that are required to carry observers, and distribute observers throughout the fishery, as appropriate. To some extent and depending on the monitoring goals, coverage levels could be adjusted to account for fluctuations in revenue, without dramatically affecting the ability of NMFS to manage the fishery.

For this reason, a fee based on the ex-vessel value of landed catch is proposed for Alternatives 3 and 4 and for Tier 3 and 4 vessels under Alternative 5. Ex-vessel value fees are the most commonly-used type of fee in the North Pacific. In sum, the advantages are that it is broad-based, perceived to be equitable, and roughly correlated with each operation's ability to pay and level of participation. A fee based on the ex-vessel value of landed catch would be relatively easy to monitor and collect, because much of the information necessary to assess such a fee is already collected by NMFS and/or on ADF&G fish tickets.

Basis for an ex-vessel value fee: Standardized or actual prices

The previous Research Plan used a set of standardized prices, by species and gear, upon which to base the fee assessment. Price information from the current year was used to calculate a standard price per pound, which would be applied to the following year's landings. Industry was largely opposed to the use of standard prices, preferring to use actual prices when possible. **However, NMFS supported the use of standardized prices and continues to do so for several reasons:**

1. Many operations have no price transaction (at-sea processors, for example)

2. Non-monetary compensations or post-season adjustments occur which do not appear on fish tickets

3. Use of actual prices could encourage price manipulations, or "under reporting"

4. Projection of revenues, and specification of annual coverage levels, is much more feasible with the use of standardized prices

The use of **standardized prices** was a major point of controversy in the development of a cost-recovery (fee) program for the halibut/sablefish IFQ program. NMFS ultimately developed a flexible system under which fishermen were given the choice to report actual prices, or use NMFS standardized prices. This approach appears to have addressed major industry concerns about the use of standardized prices. Furthermore, most IFQ fishermen have elected to use NMFS standardized prices, rather than actual prices, which suggests that the standardized prices are "lower" than actual prices and, therefore acceptable to industry. In 2004 (to pay for the 2003 fishing year), 95% of IFQ permit holders that paid the cost recovery fee chose to pay the fee amount that NMFS calculated they owed, based on standard ex-vessel prices, while 5% of IFQ permit holders chose to pay based on the actual ex-vessel value of at least some of their landings (*Jessie Gharrett*, *pers. comm*). The successful use of standardized prices in the IFQ cost-recovery program is likely because the program is able to use the current year's data to generate standardized prices. This is so, because fees are not assessed until completion of the fishing season. By contrast, the original Research Plan was forced to base standardized prices on the prior year's data, because fees were collected at the time of landing.

If **actual prices** are preferred, NMFS would still be forced to use a hypothetical standardized price for CPs, because no sale of raw fish actually occurs aboard these operations. The use of actual prices for the rest of the industry depends on the ability of NMFS to address the concerns that arose during the development of the Research Plan. If these concerns cannot be adequately addressed, then standardized prices may be the only viable approach under all of the restructuring alternatives. It should be emphasized that, even if a choice is made to base fees on actual prices, NMFS will still need to calculate standardized prices for all landings that do not constitute the ex-vessel sale of whole fish to a processor. These include all landings by CPs, and all transactions in which fishermen sell fish directly into the retail market such as to restaurants, groceries, and directly to the public. It may be also be necessary to utilize a standardized price when CVs are owned and operated by the plants to which they deliver, whether inshore or motherships.

Implementing an ex-vessel value fee

While data currently collected by NMFS could be used to track the weight of raw fish offloaded to a processor, standardized prices currently are not calculated for groundfish species. To calculate standardized prices for other fee collection programs, regulations were adopted which required certain data collections. For example, the Council's crab rationalization program implemented a joint ADF&G and NMFS electronic reporting system which will be used to collect price information from CPs (CV fees

are based on actual prices) for calculating cost recovery fees. The joint electronic reporting system would be an internet based system which will allow for near real-time reporting of catch and price information for the rationalized crab fisheries.

NMFS intends to expand the joint electronic reporting system to groundfish fisheries in the future. NMFS expects that expanding the joint electronic reporting system to the groundfish fisheries would likely occur prior to implementation of any alternative restructuring the observer program which is adopted by the Council. This system would replace the current NMFS shoreside processor electronic logbook report (SPELR) and ADF&G fish ticket system and decrease the administrative burden on processors, by eliminating record keeping and reporting redundancies (*Dave Ackley*, *pers. comm.)*.

The joint electronic reporting system, as it is currently envisioned for groundfish fisheries, would not require processors to enter price information for groundfish deliveries. However, NMFS would need to collect this information for any Observer Program restructuring alternative, adopted by the Council that would require the collection of fees. For this reason, regulations would be proposed which would require processors to enter price information for groundfish into the joint electronic reporting system. Specifically, price reporting would be required for all processors receiving GOA groundfish, under Alternatives 3 - 5, and all processors receiving BSAI groundfish, under Alternatives 4 and 5. This is because under Alternatives 3 and 4, CPs would be operating under a restructured observer program in the GOA, and under Alternatives 4 and 5, CPs would be operating under the program in the BSAI. Thus, standardized prices applied to CPs would be calculated from shoreside deliveries from the area closest to which they are operating. Additionally, the joint electronic reporting system could include a function which automatically calculates observer fee liabilities for those vessels that would pay fees based on actual prices. This would reduce the concerns processors had under the Research Plan, in which they expected a significant increase in burden associated with calculating and collecting fees.

In addition to eliminating record keeping and reporting redundancies, as described above, there are several advantages to the joint electronic reporting system over current processes:

- While the SPELR incorporates some reporting data used by inseason managers, it does not include the price information needed for calculating fees.

- Fish tickets are not entered into the ADF&G database in real time. Data from fish tickets are required to be submitted to ADF&G within one week of a landing, and are entered by ADF&G staff into a database as they are received from processors. This process is typically considered to represent a completed data set by March or April of the following fishing year, and could: 1) delay the availability of funds, resulting in temporary funding shortfalls, if contracts are structured based upon short term task orders, reducing NMFS' ability to administer the fee program; 2) alternatively, an entire year of initial funding would be needed [and the advantages of an Indefinite Delivery Indefinite Quantity (IDIQ) contract described elsewhere in this document would be minimized]; or 3) force NMFS to use standardized prices from the previous year.

- Fees could be calculated by hand. However, that would represent a substantial burden to the agency and potential decreases in accuracy that could result in over or under billing. Implementing an automated fee collection system reduces the burden and decreases in accuracy associated with hand calculated fees.

- The official fish ticket database is kept by the State of Alaska. NMFS currently has a data sharing agreement with the State of Alaska for these data. If the current system war used to calculate fees, that data sharing agreement may need to be revised to incorporate the use of price information.

- The timeliness and quality of data for purposes of enforcement actions could be increased under the joint electronic reporting system.

In sum, the electronic reporting system is anticipated to be an efficient way of gathering data for calculating and enforcing these fees.

NMFS would use the data collections described above to calculate fees and bill vessels and processors on regular billing cycles, through existing processes. The U.S. Department of Treasury maintains a website where vessels could electronically pay fees with a credit card. These funds would be electronically deposited into an account in the Federal Treasury, which would likely be established by statute. For example, legislation which established a requirement for NMFS to collect fees for quota monitoring programs also established the Limited Access System Administrative Fund (LASAF) in the U.S. Treasury. Vessels could also pay fees through the mail. NMFS would establish an account in a local bank and deposit these funds. The bank would electronically transfer these funds to the U.S. Treasury. NMFS could draw on these funds to pay contractors for providing observer services.

NMFS could implement an enforcement program to ensure fees are paid in a timely manner. NMFS could establish regulations which would require fee payment prior to issuance of a Federal processing or fishing permit. Currently, these permits are valid for three years. However, record keeping and reporting regulations could be altered, so they are issued on an annual basis. Processors that do not pay their fees would not receive their permit and would not be able to receive groundfish during the following fishing year. Similarly, vessels that do not pay their fees would not be able to fish for groundfish during the following year. If NMFS determines that a particular processor or vessel did not pay the correct amount, the burden would be on the vessel or processor to prove otherwise. Issuing permits annually, rather than every three years, would increase the administrative burden for the industry and agency. However, the benefits associated with enforceability of the fee program would outweigh the costs associated with the increased administrative burden.

Accounting for post-season settlements (retro-payments)

In addition to fee assessments at the time of landing, fees would also be assessed on any post-season settlements or retroactive payments. Regulations implementing the program would contain reasonable deadlines for reporting post-season settlement payments and submission of fees on such payments.

Accounting for non-monetary or non-traditional marketing of fish

Some fishermen choose to market their catch directly to consumers, rather than to traditional processors. And, in some instances, fishermen may chose to engage in non-monetary exchange or barter of fish for goods and services. In all of these instances, fishermen would be responsible for reporting their catch to NMFS. When a traditional ex-vessel sale of fish to a processor does not occur, the fee would be assessed using standardized prices.

Accounting for annual fluctuations in total revenue

One of the major problems facing the design of an ex-vessel value fee program to support observer coverage is that total revenues from the groundfish and halibut fisheries tend to fluctuate much more widely on an annual basis than do coverage needs. This issue is addressed in detail in Section 4.5.1. The program funded by the fee collection is likely to require a relatively stable budget over time, with adjustments for inflation and regulatory changes to coverage requirements. However, annual revenues are likely to vary substantially, due to annual changes in prices and harvests. If the program is designed to be self-funding on an annual basis, this will result in the need to increase the fee percentage during

years in which the total revenue is low and decrease the fee percentage in years when the total revenue is high.

The program could resolve this problem by maintaining a surplus of funds so that a drop in revenues during any one year does not jeopardize coverage during that year. An alternative approach would be to create a more stable funding base by basing the fee on a multi-year average of total revenues. For example, a five-year running average could be used to estimate total revenues from fisheries subject to the fee, and the fee percentage could be adjusted automatically on an annual basis. Using this approach, the fee percentage would increase as revenues go down, and decrease as revenues go up, but the magnitude of the changes would be less dramatic in any one year.

Fee amounts paid by vessels and processors under an ex-vessel value fee

Under the ex-vessel value fee program proposed under Alternatives 3 through 5, the fee amount would be paid by both vessels and processors covered by the program. One-half of the fee collection would be paid by processors and the other half by vessels. Catcher processors, which both harvest and process groundfish or halibut, would pay both the fishing and processing ex-vessel value fees. For example, if the fee amount is 2.0%, 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.

Daily observer fee based on actual coverage costs

The most viable alternative to a fee based on ex-vessel value is a daily coverage or observer fee based on coverage costs (i.e., modified "pay-as-you-go"). 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. This approach is probably only feasible for vessels and processors with 100% or greater coverage. Such a fee could be designed to exactly match the direct costs of observer coverage, as is currently the case with the pay-as-you-go program, or the fee could be set at a lower level than actual coverage costs, if Federal taxpayer funds are available to subsidize the program.

Under this approach, NMFS would monitor each vessel's activity and would assess a fee based on the number of observer deployment days. The fees could be collected through direct billing by NMFS or by a third party, such as a billing service. **A daily observer fee is the proposed approach for Tier 1 and 2 (100% or greater coverage levels) vessels and processors under Alternative 5 only.**

Advantages of a daily observer fee based on coverage levels

- *Fee revenues could exactly match costs.* If the daily costs of observer coverage are known in advance (as they would be if NMFS entered into long-term contracts with observer providers), then a daily observer fee could be designed to exactly match the costs of coverage. This is a major advantage to such an approach, because it means that coverage would not be threatened by revenue shortfalls.

- *Fees more closely match monitoring requirements.* A fee based on coverage means that everyone pays for the coverage they receive.

Disadvantages of a daily observer fee based on coverage levels

- *Does not address disproportionate cost issues.* One disadvantage to such an approach is that it does not address the problem of disproportionate costs that is of concern in the current pay-as-you-go program, and is identified in the problem statement. In effect, vessels would be charged for their observer coverage in a very similar manner to how they are charged today, except that NMFS would be assessing the fee directly.

- *Difficult to administer in fisheries with less than 100% coverage.* Another disadvantage to a daily observer fee approach is that it would be difficult to administer in fisheries with less than 100% coverage requirements. In fisheries with less than 100% coverage requirements, the daily observer fee could be assessed at a rate that matches the target coverage level for a fishery. However, such an approach would reduce the ability of managers to move coverage around to respond to changing management needs. If a daily observer fee is linked to coverage levels in a particular fishery, then every decision by NMFS to modify coverage levels would result in fee increases or decreases and require lengthy analysis and rulemaking. This could severely restrict the ability of NMFS to modify coverage levels in a timely manner to respond to changing data needs, which is one of the primary concerns identified in the problem statement. For this reason, the daily observer fee is only proposed for vessels and processors in Tiers 1 and 2 with coverage levels of 100% or higher under Alternative 5.

Types of fisheries that lend themselves to a daily observer fee based on coverage costs

The types of fisheries for which a daily observer fee is most appropriate are those in which 100% or greater coverage requirements are mandated by law or by the requirements of specific management programs. Typically these are fisheries in which individual vessel monitoring is required for management or enforcement purposes. For example, the AFA mandates that all AFA CPs carry two observers at all times such vessels are fishing or processing in the North Pacific. The monitoring requirements of the CDQ program and the proposed IR/IU retention requirements for BSAI non-AFA trawl CPs ≥125' also require 100% or greater coverage. In these fisheries, reducing coverage levels to respond to revenue shortfalls is not a viable option, because the management programs are dependent on vessel-specific observer data to function.

Thus, a daily observer fee based on coverage costs may be the most viable approach for fisheries in which the need for individual vessel monitoring requires 100% or greater coverage levels. Such a fee would ensure that administration of contracts between NMFS and observer providers are not affected by revenue shortfalls, because the fees collected would always be adequate to pay for the required coverage. For this reason, a daily observer fee is the proposed approach for Tier 1 and 2 vessels under Alternative 5.

Implementing a daily observer fee

A daily observer fee would be relatively straightforward to administer compared to a fee based on ex-vessel value. In its simplest form in terms of collecting daily observer fees as discussed here, the Observer Program would submit a report to the NMFS Alaska Regional Office containing the name of each vessel and processing facility required to submit daily observer fees and the number of days and observers that vessel carried during that billing cycle. This information currently is available and would likely require minimal additional programming by Observer Program staff to create a report which meets these needs. As all billing for fee programs currently is conducted by the NMFS Alaska Regional Office in Juneau, staff at that office would calculate an observer fee liability for each vessel and bill each vessel on a regular billing cycle. Administrative billing and payment processes would be similar to those under

the ex-vessel value option. Enforcement mechanisms for these fee payments would also be similar to those which would be in place under an ex-vessel value fee.

Daily observer fees would be estimated based on an examination of current contracts NMFS has entered into for deploying observers and estimates of costs associated with those contracts. If the daily observer fee is underestimated, NMFS may find itself in a position where observers are required on certain vessels, but funding to support that coverage is unavailable. To avoid this scenario, fees could be set slightly higher than are expected and the excess could be refunded to vessels after the fishing year. Actual costs under this fee option are impossible to estimate without contracts in place.

Federal funds & start-up funding

With one exception,[16] the Federal observer programs in other regions of the U.S. are entirely Federally funded. Given this fact, many fishermen in the North Pacific contend the North Pacific Groundfish Observer Program should also be Federally funded. Although the likelihood that Federal funds could become available to partially or fully support the groundfish observer program in the North Pacific is not easily predicted, the possibility of Federal funding is considered in this analysis. Federal funding for observer coverage can be divided into two categories: 1) one-time start-up funding, and 2) ongoing subsidization (partial or full). All of the alternatives under consideration can incorporate some level of Federal subsidy, should it become available.

Alaska's small coastal fishing communities are similar to non-Alaska fishing communities with Federally funded observer programs

The commercial fishing industry in Alaska encompasses both the large scale industrial fisheries and the smaller scale traditional fisheries. The larger, industrial fisheries in the BSAI are dominated by large vertically-integrated companies that operate large catcher processors and onshore processing plants. A majority of the vessels delivering groundfish to shoreside processors in the BSAI are owned in whole or in part by the processing companies to which they deliver. This industry is centered around the ports of Dutch Harbor and Akutan in the eastern Aleutian Islands, and most of the companies participating in these fisheries are based out of Seattle or other cities outside of Alaska. As described previously, this component of the Alaska fishing industry developed rapidly in the 1980s, with the legislative and financial encouragement of the Federal government and State of Alaska, expressly to replace the foreign and joint-venture fisheries operating in the U.S. EEZ at that time.

By contrast, the coastal fishing communities in the GOA, and other more remote regions of the BSAI, developed in a more traditional manner. Communities in the GOA, such as Sitka, Yakutat, Cordova, Homer, Kodiak, Sand Point, King Cove, Chignik, and others have traditional roots in commercial fishing and most have had fleets of local commercial fishermen for over a century. These community fishermen primarily harvested salmon, halibut, herring, and shellfish until the more recent development of domestic markets for groundfish, such as pollock and cod. These fishing towns are very similar to traditional fishing communities outside of Alaska, such as Astoria and Newport, Oregon; Gloucester and New Bedford, Massachusetts; Reedsville, Virginia; Empire, Louisiana; and Pascagoula, Mississippi, in terms of the scale and composition of their fishing fleets and processing industries. Alaska's coastal fishing communities tend to be even more dependent on commercial fishing than their lower 48 counterparts, due to their isolation and limited alternative economic opportunities. The fishing fleets in these Alaska fishing communities tend to be composed of the same type of vessels that operate out of lower 48 fishing ports, and are of similar size and scale. As is the case outside of Alaska, the coastal fishing fleets in

[16] The Pacific whiting (hake) observer program in the Northwest is funded by industry in a pay-as-you-go system in the same manner as the North Pacific groundfish observer program.

Alaska are almost exclusively owner-operated small businesses and not part of the vertically-integrated large-scale Bering Sea groundfish industry.

One size does not fit all: Problems with industry funding of observer coverage in small vessel fisheries and in the Gulf of Alaska

As noted above, the current North Pacific Groundfish Observer Program, in which industry contracts for its own observers, is a legacy of the 1970s and 1980s, when foreign fishing companies operating large factory trawlers and processing ships were operating in the U.S. EEZ. For these large foreign companies, paying for observer coverage was a cost of doing business, and a relatively minor cost relative to the resource they were exploiting. During the initial rush by American companies to enter the groundfish fishery off Alaska, a large-scale domestic fishing industry developed primarily to prosecute the offshore crab and groundfish fisheries of the BSAI. Many large American trawl and hook-and-line CP vessels were built along the same lines as the foreign vessels they were replacing. At the time, it made sense to extend observer coverage to these vessels and processors through the same industry-funded 'pay-as-you-go' approach that was previously used to fund coverage on foreign and joint-venture vessels. Indeed, several of the companies operating large vessels and processors primarily or wholly in the BSAI have testified to the Council on many occasions that they prefer the industry-funded approach to alternatives such as using fish taxes to fund observer coverage.

However, despite the relative satisfaction that large fishing companies have expressed with the current program, many smaller-scale vessel operators and fishermen have found that the cost of paying for their own observer coverage is a far greater burden than it is for the large companies operating large vessels and processors. This is especially true in the GOA, where the groundfish industry has developed along much more traditional lines than in the BSAI. It is also true for smaller scale operations in the BSAI and some CDQ fisheries where observer costs can amount to a relatively large fraction of overall revenues.

Start-up funding

Start-up funding is crucial to the successful implementation of a restructured observer program. Without start-up funding, fees would need to be collected in advance of the start-up date, until sufficient fees are collected through the program to make it self-supporting. It may not be economically viable to collect fees from vessels that are still paying for observers through the current pay-as-you-go system. Consequently, some type of start-up funding is necessary so that funds are available for observer contracting during the first year of the program, although the amount of start-up funding required depends on both the program scope and the type of contracting model chosen. Direct Federal funding during the first year of the program would be one way to achieve start-up funding. An alternative source of start-up funds could be a Federal loan, similar to the one established under the AFA for the inshore pollock fishery in the BSAI. Under the AFA, the inshore sector was "loaned" $75 million for the purpose of retiring nine CPs and extinguishing their catch history. This loan is currently being paid off over a 20-year period through a 0.6 cent/lb fee on inshore pollock landings. A similar type of loan could be used to obtain start-up funds for a new observer program. An alternative approach would be to generate start-up funds by beginning fee collection from vessels that are not currently required to carry observers, in advance of the implementation date.

One type of contract called "Indefinite Delivery/Indefinite Quantity" (IDIQ) would reduce, but not eliminate, the need for start-up funds. Under IDIQ contracting, NMFS would enter into an agreement with one or more service providers for a certain minimum number of observer days or time period, with the option to continually extend the contracts, as funds become available and/or the contractor continues to meet the terms of the contract. Under IDIQ contracting, NMFS could enter into coverage contracts sufficient for the first quarter of coverage in a given year and then continue to renew or extend those contracts as fee proceeds become available. The amount of start-up funds required under IDIQ contracts

would depend on the specific terms of the contract. Additional information on this type of contracting process is contained in Section 4.8.

It should be noted that both a Federal grant and a loan would require Congressional authorization. Furthermore, the choice of alternative (in terms of program scope) will directly affect the level of funding necessary to implement the program in the first year. Any future decision to expand the scope of the program at a later date would also generate a parallel need for additional subsidies to fund program expansion.

Ongoing Federal funding

In addition to start-up funding, some level of ongoing Federal subsidies is clearly desired by industry to reduce fee percentages and bring the program into alignment with the majority of other observer programs throughout the nation that receive full Federal funding. However, it is impossible to predict the likelihood and level of any future Federal subsidies to cover the direct expense of observer coverage.

Other types of user fees that are not analyzed further

A variety of other types of user fees were considered and rejected from further analysis because they do not meet all of the principles outlined above. Most of these approaches were discussed and considered by the OAC. The following is a brief summary of alternative types of user fees, and the reasons for their rejection from further analysis.

Fee based on total catch (including discards and PSC bycatch). An alternative type of fee could be based on total catch, instead of landed catch, so that fees are also assessed on discards and PSC bycatch. While such a fee might be appealing in that it would reward "clean" fishing and provide an additional financial incentive for vessels to avoid discards and bycatch of PSC species, such a fee would be more burdensome to monitor and collect. Discards and PSC are among the most difficult data to collect in the groundfish fisheries off Alaska and such data cannot be reliably collected on unobserved vessels, because these species are not allowed to be retained. Given the relatively low levels of current coverage in most of the fisheries to which the restructuring alternatives would apply a fee that includes discards and PSC bycatch is unlikely to be viable. That is because NMFS would have no basis upon which to assess the fee against vessels that did not carry observers. Such a fee would require burdensome and costly additional monitoring of bycatch and discards to collect the necessary data.

Fixed tonnage fee by species or product. This type of fee is currently used in the BSAI inshore pollock fishery, where vessels pay a fee of 0.6 cents per lb for all pollock landed in the directed pollock fishery. A similar type of fee in the form of a fixed tonnage fee for each type of groundfish and halibut harvested under the restructured observer program could also be used to support observer coverage. However, the application of a fixed poundage fee would be more complicated in a multi-species fishery. To establish such a fee, the Council would likely need to consider a separate fee amount for each species, so that high-value/low-volume fisheries are treated comparably with high-volume/low-value fisheries. Otherwise, some fishermen would be paying disproportionately high fees relative to their revenues, and participation in some low-value fisheries could be effectively precluded, if the fee were set at too high a percentage of the ex-vessel value. Setting a separate tonnage fee amount for each species and/or product type could result in a long, complicated, and political process that can be avoided by using a uniform fee based on ex-vessel value. An additional disadvantage to such a fee is that it does not account for inflation. Fee revenues would remain constant over time (relative to the TACs), while observer costs could increase. A fee based on a percentage of ex-vessel value has the potential to increase revenues over time to the extent that prices increase due to inflation. However, fish prices and observer costs are not necessarily linked and, in any one year, prices could drop while observer costs increase. Over the long-term, a fee that is based on ex-vessel value is more likely to follow inflation than one that does not change over time.

Licensing fee. Federal fishing permits are currently issued free of charge by NMFS to all eligible applicants. A licensing fee similar to existing car-tab fees could be assessed on vessels that wish to participate in a fishery governed by the program. Licensing fees could be based on factors such as vessel length, gear type, target fishery, or even the vessel's appraised value. However, such a fee would be difficult to develop in a manner that is fair and equitable and does not impose a disproportionate cost on certain participants. It could also require substantial additional paperwork and record keeping.

Export/import tax on seafood products. Import/export duties could be imposed on seafood products to support management programs, such as observer coverage. Such a fee would shift some of the costs of coverage to foreign seafood producers and/or foreign consumers. It likely would be passed along to U.S. consumers, given our very substantial "net importation" of seafood supply. However, this type of program falls outside of NMFS' jurisdiction, and is not analyzed further in this document. Furthermore, this type of tax would be more appropriate to consider at the National level, say, to support observer programs nationwide.

Fuel tax. Fuel taxes have been used to support various conservation and management programs. A tax on marine fuel could be imposed to support marine resource management needs such as observer coverage. However, as with the import/export tax, a fuel tax falls far outside of NMFS' jurisdiction and would be more appropriate to consider at the National level to support marine resource management needs nationwide. For this reason, a fuel tax is not considered further in this document.

Fee collection: Who is responsible for collecting the fee?

A primary issue with the previous Research Plan was the requirement that processors collect and submit vessel fees. Processors were concerned about the administrative burden associated with collecting and submitting fees. With advances in electronic reporting, fee tracking and submission could be largely automated. Therefore, the administrative burden associated with fee collection and submission is likely to be smaller than anticipated under the original Research Plan. On the other hand, the IFQ fee collection program is based on direct billing of fishermen and has proven that such a system is viable, at least in the context of IFQ fisheries where individual quotas may be withheld for lack of payment.

However, NMFS believes that a system in which processors are responsible for fee collection would be the most effective, because the fee would be collected at the time of transaction rather than months later. **Therefore, under Alternatives 3 through 5, processors would be responsible for collecting fees from fishermen at the time of landing, and for submitting fee proceeds on a quarterly basis.** CPs would be required to submit fee payments to NMFS on the same schedule. This approach would be facilitated through modifications to existing software. An electronic reporting system is described above and would support this process.

Uniform or variable fees?

Coverage needs among fisheries are not uniform and may vary in response to factors such as species composition, bycatch levels, marine mammal and endangered species interactions, and the level of individual vessel monitoring in the fishery. The decision to use uniform or variable fees addresses the equity-related question of whether all fishermen should pay a uniform ex-vessel fee regardless of the coverage needs in their particular fishery, or whether fishermen who participate in fisheries with higher coverage needs should pay a proportionately higher fee. One of the problems identified with the current "pay-as-you-go" system is that coverage levels are inflexible and difficult or impossible to adjust based on management needs. An important advantage of the proposed restructuring is increased flexibility in determining how observers should be deployed among fisheries. For that reason, establishing a program in which fees are directly linked to target coverage levels in individual fisheries may be inadvisable. If every change in target coverage level for a particular fishery also resulted in a change in the fee percentage, then every change in target coverage levels would become a political decision that could require lengthy Council action and agency rulemaking. Such a system would greatly restrict the ability of managers to vary coverage levels in response to changing management needs.

For this reason, none of the restructuring alternatives consider options that would establish variable fees for "baseline" coverage based on categories such as target fishery and gear type.

Supplemental fee options for special programs

Alternatives 3 – 5 assume that a uniform fee would be established for all participants covered by the ex-vessel fee program. The choice of a uniform fee is based on the assumption that all of the Tier 3 and Tier 4 fisheries covered by the program would continue to be managed under the current management system which relies on aggregate data to manage TACs rather than individual vessel-specific data. However, the passage and implementation of GOA rationalization could significantly change the data collection and monitoring requirements for those fisheries covered by the rationalization program. Monitoring and enforcement alternatives have yet to be developed for GOA rationalization, as the Council continues the process of developing its primary management alternatives. However, the rationalization alternatives currently under consideration could require increased observer coverage. In addition, other rationalization proposals currently under development, such as the cooperatives under consideration for non-AFA trawl CPs that participate in the BSAI flatfish fisheries, also propose significant increases in observer coverage to that fleet (200%).

Given the variety of new rationalization programs currently under development, the Council may wish to consider whether it is more equitable to fund the increases in observer coverage required by new rationalization programs through some form of supplemental fees that are assessed only on the participants that benefit from such rationalization programs. Some GOA rationalization alternatives under consideration contain options for individual halibut PSC quotas at the individual vessel or cooperative level. These programs would likely require increases in observer coverage to generate adequate catch and bycatch data at the individual vessel or cooperative level.

Supplemental fee revenues could be generated by increasing the ex-vessel fee percentage for participants in rationalization programs, or could be generated through any of the other types of fees described above. Alternatively, IFQ cost recovery fees could be used, in part, to cover increased observer costs required for a new groundfish IFQ program, although the effect would be to raise the ex-vessel value fee for IFQ holders because the MSA specifies that IFQ cost-recovery fees be expressed as a percentage of ex-vessel value. **Note that any change or addition to the current fee would have to be approved through subsequent analysis and rulemaking.**

A supplemental fee program is not included as a component in any of the alternatives in this analysis. The final rule for BSAI Am. 79 (groundfish retention standard for non-AFA trawl CPs ≥125') was published on April 6, 2006 (71 FR 17362). This rule requires at least two level 2 observers each day a non-AFA trawl CP ≥125' is harvesting or processing groundfish in the BSAI. NMFS may authorize the vessel to carry only one lead level 2 under an alternative processing plan. This rule will be effective January 20, 2008. The only rationalization program on the near-term horizon that will significantly increase observer coverage requirements is Amendment 80 to the BSAI FMP, which would increase coverage requirements on all BSAI non-AFA trawl CPs in the program to 200%. If Amendment 80 is approved by the Secretary and implemented by NMFS, the likely result is that these vessels would be shifted to the Tier 1 category where they would be subject to a daily observer fee rather than an ex-vessel value fee, eliminating the equity issue (see proposed tier levels in Table 2-3). Nevertheless, the Council may wish to consider supplemental fee programs in the future, should they be needed to address additional management needs in specific fisheries that are subject to an ex-vessel value fee. This may be as simple as ensuring that the FMP text, regulations, and any statutory language authorizing the program are sufficiently flexible to support the later adoption of a supplemental fee program. While the Council and NMFS have the ability to modify FMP amendments and regulations, once a statutory change is enacted, it is much more difficult to modify. Therefore, it is crucial that any statutory language establishing a new Observer Program be sufficiently flexible to accommodate future management needs.

Initial fee percentage

Under Alternatives 3 – 5, setting an initial fee percentage is one of the primary decision points. However, it is not possible to recommend specific fee percentages at this stage in the analysis because both future coverage needs and the level of direct Federal funding are unknown. Nevertheless, the fee percentage (and the level of Federal funding) would determine the program's budget and would directly affect coverage levels in the fisheries covered by the program and costs paid by industry. The issue of how much coverage is necessary or optimal to manage particular groundfish and halibut fisheries is complex and is beyond the scope of this analysis. The process for determining the annual coverage levels in fisheries that are determined to need less than 100% coverage (Tier 3 and 4) is discussed in Section 4.2.6.

Most of the fisheries in question are currently evolving, as a rationalization program is under development for the GOA groundfish fishery and various management cooperative proposals are under development for the non-AFA trawl CP BSAI flatfish fisheries, and future coverage needs are unknown. The intent of this amendment was to evaluate alternatives for modifying the overall observer service delivery model in the North Pacific. It is thus beyond the scope of this analysis to determine what levels of coverage would ultimately be necessary to implement the various rationalization and bycatch management proposals that are currently under development. **For this reason, this analysis is limited to considering the fee percentages necessary to maintain existing levels of coverage overall (with the flexibility to shift coverage among the Tier 3 and 4 fisheries as necessary) and provide some resources to expand the program into fisheries that currently have no coverage (the halibut and <60' groundfish fleets) in the absence of any direct Federal funding.** To the extent that Federal funding becomes available, fee percentages could be reduced or coverage increased. **Therefore, three ex-vessel value based fee percentage levels (upper, middle, and lower endpoints) are proposed for consideration under each restructuring alternative in the RIR (Chapter 4). These are summarized briefly below.**

Option 1 (lower endpoint): Maintain the existing number of deployment days. Under this option, the fee percentage would be set at the level necessary to provide an equivalent number of coverage days that are currently provided under the status quo. NMFS would have roughly the same number of observers to work with as are available under the status quo, but would have the flexibility to deploy these observers in a more rational fashion to maximize the utility of the data collected. Under this option, any deployment

of observers in the halibut fishery and on groundfish vessels under 60' would come at the expense of existing coverage levels on shoreside processors and groundfish vessels ≥60'. Under all of the action alternatives, the average costs of observer coverage for vessels that currently carry observers would go down under this endpoint because the status quo number of coverage days would be supported by revenues from a wider fleet than under the status quo.

Option 2 (mid-point fee): Establish a fee percentage that accommodates 100% coverage for trawl and hook-and-line CPs <125' while maintaining the existing number of observer days for the remaining fleets covered by the program. Under this option, all trawl and hook-and-line CPs <125' would be assessed an ex-vessel value fee, but with the objective of generating sufficient revenue to raise their coverage level to 100%. Therefore, fees are increased relative to Option 1 to accommodate the increase in coverage without affecting coverage levels in other fisheries. This option applies to Alternative 3, and would only apply to Alternatives 4 and 5 if the Council decides to include CPs <125' in Tier 3. If the Council decides to assign CPs <125' to Tier 2 (as recommended by NMFS) under Alternatives 4 or 5, then the mid-point fee percentage is not applicable. In this case, CPs <125' would operate under the existing program (Alt. 4) or pay a daily fishing fee (Alt. 5) rather than an ex-vessel value fee.

Option 3 (upper endpoint): Establish a fee percentage that is self-supporting at current coverage levels for sectors that currently have coverage and apply the same fee percentage to all new fisheries into which the program expands. Under this option, the fee percentage would be set at a level necessary for fee revenues from the currently covered sectors of the industry (groundfish vessels over 60' and shoreside processors) to fund the current number of deployment days in those sectors. Each new sector that is not currently covered that comes into the program will generate additional fee revenues so that expansion of coverage into the under 60' groundfish and halibut fleets would not necessarily come at the expense of existing coverage for vessels over 60'. Because the average daily revenues generated by halibut vessels and groundfish vessels under 60' are lower than the average daily revenues generated by groundfish vessels over 60', and because observer costs per deployment day are generally higher for small vessels that operate out of more remote ports, fee revenues generated by halibut vessels and groundfish vessels under 60' would not be adequate to extend coverage to those vessels at levels currently in effect for groundfish vessels over 60'. A precise estimate of the level of coverage that the upper endpoint fee would provide for halibut and groundfish vessels under 60' is difficult to determine because data on the average number of fishing days for such vessels is unavailable.

Process for adjusting fee percentages

While the Council and NMFS can set an initial fee percentage that is likely to be sufficient to maintain current coverage levels and allow expansion of the program into new fisheries, some mechanism must be established through which the fee percentage can be adjusted to account for changing needs as well as changing coverage costs and ex-vessel prices. The original Research Plan created a framework process under which fee percentages could be adjusted on an annual basis (within the 2% statutory limit) in response to changing needs for observer coverage. However, recent legal guidance on frameworking suggests that an open framework of this sort is no longer acceptable under the requirements of the Administrative Procedure Act, should the framework mechanism provide NMFS and the Council with the ability to make discretionary changes to the fee percentage. Such discretionary changes to fee percentages need to go through the process of notice and comment rulemaking. Additional legal guidance was requested to determine if any options exist for discretionary fee adjustments that do not require rulemaking.[17]

[17] Letter from Chris Oliver to Lisa Lindeman, December 29, 2004.

Note that the halibut/sablefish IFQ cost recovery program provides a mechanism through which the IFQ fee is adjusted on an annual basis. However, the formula for establishing the fee percentage is specified in regulation and neither NMFS nor the Council may make discretionary changes to the IFQ fee percentage that fall outside this formula. Regulations at 50 CFR 679.45(d)(2) state that the "annual fee percentage" is the percentage, rounded to the nearest tenth of a percent, of the "total ex-vessel value" of the IFQ fisheries that must be collected to recover allowable costs, with the percentage not to exceed 3%. IFQ regulations specify that the fee percentage be calculated using the following formula:

[100 x (DPC - AB) / V] / (1 - NPR)

where:

DPC - is the direct program cost for the IFQ fishery for the previous fiscal year;

AB - is the projected end of the year account balance for the IFQ program. This balance is zero the first program year and would be a positive amount in any subsequent year for which an over-collection of fees occurs. Slight over- collection of fees can occur, for example, if the amount collected exceeds costs due to amendments to landings data after the fee percentage is calculated; or if some permit holders pay fees based on actual value received which is greater than the value of their landings based on the "standard ex-vessel values". Any over-collection amounts are incorporated in the fee percentage calculation the following year.

V - is the projected ex-vessel value of the IFQ fishing subject to the IFQ fee for the current year ("total ex-vessel value"); and

NPR - is the "non-payment rate", the fraction of the fee assessment that is expected to result in nonpayment. The first year this program's expectation of non-payment was zero. In subsequent years, this figure is the fraction of the principal amount billed that is not collectible by NMFS and which is referred for collection.

IFQ regulations specify that the "default" fee percentage is 3% of "the total ex-vessel value" of IFQ fish landed each year. If applying a 3% fee would recover revenues in excess of those needed, the percentage is set at less than 3%. When the fee is set at less than three percent, notice of the new percentage is published in the Federal Register and reflected in summaries sent to permit holders. Once the annual fee percentage is published, it is not changed.

Because this formula is explicit and adhered to rigidly each year, NMFS may adjust the IFQ fee percentage on an annual basis through a *Federal Register* notice without the need for notice and comment rulemaking. However, the Council and NMFS do not have the discretion to establish an IFQ fee percentage different from that generated by this formula without going through the process of an FMP amendment and notice and comment rulemaking.

The Council and NMFS could potentially use the IFQ cost-recovery program approach to provide annual adjustments to the fee percentage if the formula is explicit. However, a rigid 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. Therefore, a formal regulatory amendment is assumed to be required for any change in the fee percentage.

Restrictions on the use of fee proceeds

Under Alternatives 3 - 5, it is assumed that NMFS would continue to be responsible for administrative costs, and that fee proceeds would not be used to cover expenses related to the administration of the Observer Program. This is similar to the approach considered under the original Research Plan, fee proceeds could only be used to pay for costs directly associated with coverage by human observers.

However, advances in technology may produce viable alternatives to human observers in some instances. Furthermore, additional technologies and equipment could be required onboard vessels to assist observers in their data collection. **Proceeds of the fee program are currently limited to funding only human observers in this analysis. Alternatively, the program could be designed so that some fee proceeds could be used to subsidize or pay for supplemental or alternative monitoring technologies that could be required on some vessels.** A separate analysis of alternative monitoring technologies and their potential applicability to the GOA and BSAI fisheries has been prepared under contract, and is provided as Appendix I to this document.

2.2.4 Technological and equipment requirements

NMFS has already established various technological and equipment requirements for vessels required to carry observers under the existing regulations. These include requirements for sampling stations on certain CPs and inshore processors, and the communication software required so that observers are able to submit data from sea. These requirements would be largely unchanged under the proposed alternatives.

NMFS intends to explore the use of several technologies to facilitate the deployment of observers, regardless of the preferred alternative under this amendment. However, Table 2-5 outlines the type of equipment that would be most applicable to each tier fishery under the restructuring alternatives.

Table 2-5 Existing and proposed equipment requirements under the new tier structure

Equipment requirement	*Applicability*
Flow scales (or equivalent)	Tier 1
Observer sampling station	Tiers 1 and 2
ATLAS communication software and equipment	Tiers 1 through 3
Check-in/Check-out system (manual or automated)	Tiers 1 through 3 and Tier 4 when necessary
Electronic fishing logbook (proposed as a voluntary measure)	Tiers 1 through 4

Electronic fishing logbook

Under all of the restructuring alternatives, some type of data collection system is necessary to track the fishing activity of observed and unobserved vessels in order to inform decisions about when and where to deploy observers. This is exclusively an issue in Tier 3 and 4 fisheries with less than 100% coverage, because in Tier 1 and 2 fisheries with 100% and greater coverage, the deployment decisions are automatic. (The vessel does not operate without one or two observers.) The existing catch accounting system may be adequate for administering general coverage models. However, more sophisticated coverage models that are designed to respond to changing fishing patterns will require more precise and timely tracking of fishing activity than is provided by landing reports. The most viable method of tracking fishing activity in a more precise and timely manner would be the use of electronic fishing logbooks that are integrated with GPS or VMS technology.

Logbook record keeping and reporting are required for fishing vessels ≥60' to participate in the BSAI and GOA groundfish fisheries. Software has been developed to allow fishermen to record and submit data electronically. The NMFS Alaska Regional Office has developed software to accept the electronic logbook data. Shoreside and stationary floating processors which receive deliveries from CVs participating in a directed pollock fishery must use an electronic logbook and other shoreside or stationary floating processors may choose to use an electronic logbook in lieu of a paper logbook. Additionally, NMFS has approved the use of the electronic logbook system as an alternative to paper logbooks for all CVs. Electronic logbooks are expected to be an efficient method to provide improved access to more accurate and complete information for fisheries research and management. In addition, electronic logbooks store data in a format that allows vessel operators to use the data more easily and more productively to monitor and improve fishing operations.

Note that while NMFS recognizes the benefits of using electronic logbooks to assist NMFS in deploying observers, none of the alternatives under consideration in this analysis contain a requirement that vessels obtain and use electronic logbooks.

Pilot project to test electronic logbooks in Alaska groundfish fisheries

Through a cooperative agreement with PSMFC, the Alaska Fisheries Science Center (AFSC) initiated a pilot project to facilitate the use of electronic logbooks by trawl CVs in the BSAI and GOA groundfish fisheries. Under the pilot project, NMFS provided electronic logbook software, developed by OceanLogic, free of charge to 50 trawl vessels. During the first quarter of 2003, OceanLogic installed the software on 31 trawl vessels that participate in the pollock and Pacific cod fisheries. The electronic logbook system is being used on 11 of the 31 trawl vessels to record and report required logbook data to NMFS. For many of the other 20 trawlers on which the software has been installed, the software is being used experimentally to record data but not for submission to NMFS. The original plan was to have the software installed on an additional 19 trawlers in the near future, to encourage its use on the 50 trawlers which will have received the software under this pilot project, and to ask vessel operators to submit voluntarily the frequent time and location data that are automatically recorded by the electronic logbook system on the vessels. However, the final stage of the pilot project is on hold at this point.

There has been ongoing discussion among fishermen about the advantages and disadvantages of using the electronic logbook system to both record and report logbook data. One year later, only seven fishermen continue to use the software. Based on personal discussions with GOA trawl fishermen that do not fish AFA pollock, only two skippers are satisfied with the electronic logbook.[18] This experience suggests that additional work on the system is necessary before requiring vessels to use it on a broad scale. However,

[18] Alan Kinsolving, NMFS Alaska Region, personal communication.

electronic logbooks have experienced widespread success in other regions of the world, indicating that the technology is mature enough to be successfully implemented.

Compared to the hard copy logbooks currently used, electronic logbooks are expected to have several critical advantages with respect to providing data for fishermen, fishery research, and management.

1. A vessel's data will be easier for the vessel operator to access and use because it will be in an electronic format that can be used by a variety of existing and planned software packages.

2. More timely data will be available to NMFS managers and scientists because the data will be submitted more frequently and quickly and entered automatically into a database shortly after being received. With hard copy logbooks, vessel operators are required to submit copies of their logbook data to NMFS within one month of the end of each quarter; therefore, timely data are not available even in a hard copy format.

3. Data entry errors that occur after NMFS receives the data will be reduced because the data entered by the vessel operator and the vessel's electronic logbook system will feed directly into the agency's logbook database.

4. The quality of the data submitted to NMFS will improve. First, the time and location for each haul set and retrieval is entered automatically using data from the vessel's GPS system. The vessel operator pushes a button at the beginning and end of each haul. Second, the software that has been developed by NMFS to receive the electronic logbook data checks for errors; and, if errors are found, they are flagged and sent to the vessel operator who submitted the data.

5. The electronic logbook system can provide more information than is available from the hard copy logbooks. The data recording software that has been developed by OceanLogic automatically and frequently collects vessel location information during each tow. The logbook data currently includes just the set and retrieval locations, not frequent vessel location data.

Other examples of electronic logbook requirements

Electronic fishing logbook requirements have been developed in other fisheries around the world. Perhaps the most extensive use of electronic fishing logbooks outside the U.S. has been in Australia, where the Australian Fisheries Management Authority (AFMA) has developed an electronic fishing logbook for various Australian fisheries. In the Australian example, AFMA does not involve itself in the development of electronic fishing logbook software, nor does it specify what software fishermen are required to use. Instead, AFMA has developed a set of specifications, including standard formats for logbook data and transmission that are available for all software venders. AFMA has procedures for testing the receipt of logbook data from different software venders and certifies those software packages that meet its established standards. Fishermen are free to use any electronic logbook system that meets AFMA standards (AFMA 2004). Refer to Appendix I for more detail.

Ideal elements of an electronic fishing logbook for North Pacific groundfish and halibut

Because computer and communications technology is advancing at a rapid pace, the software and hardware used in existing fishing logbooks is likely to be obsolete before a new observer program is implemented. Therefore, rather than point to existing products that may meet some objectives, it may be useful to consider some ideal characteristics of an electronic fishing logbook system for the North Pacific. These include:

- Automatic integration with GPS so that time and position information is automatically stored by the logbook and fishermen do not need to manually enter fishing locations.

- Automated entries for frequently used information so that manual entries can be minimized

- Two-way communications so that logbook entries can be transmitted to NMFS electronically on a real-time basis and NMFS has the ability to communicate back to the vessel. This type of system could be used by NMFS to determine on which vessels to deploy observers, and to communicate to the vessel that they will be receiving an observer for the next fishing trip.

- Use on multiple platforms. Most larger vessels have onboard personal computers on which electronic fishing logbooks could be installed. However some of the smallest groundfish and halibut vessels may not have space on board in which to install a permanent computer workstation. In these circumstances, it may be useful to consider alternative technologies such as ruggedized handheld computers that could be easily carried on board the smallest vessels.

Check-in/check-out system for vessels and processors

Under Alternatives 3 – 5, some type of system will be necessary so that vessels and processors can provide managers with advance notice of their fishing or processing plans. Such a system will be necessary for all fisheries that receive coverage from the program. A check-in/check-out system could potentially be integrated with the electronic fishing logbook system, or could be a separate stand-alone system. A check-in/check-out system could be administered by NMFS (or contract employees) via telephone and fax and manual data entry, or could be a fully-automated telephone or internet-based program. Many aspects of the development and administration of a check-in/check-out system could be implemented through private contracting. NMFS intended to work with the fishing industry and observer providers through a series of public workshops to develop the most flexible and cost effective method for tracking vessel activity if one of Alternatives 3 – 5 had been selected as the preferred alternative. It should be emphasized that providing NMFS with the means to receive timely and accurate information about vessel activity and fishing plans is one of the best ways to reduce the costs of the program to industry. If NMFS receives poor or inaccurate information from industry then the agency would likely be forced to maintain additional "stand-by" observers under contract at all times to accommodate the unpredictable fishing plans of the fleet. On the other hand, if NMFS has timely and accurate information about fishing plans, the contracts for observer coverage can be more closely matched to the coverage needs of the fleet meaning that industry is not paying for "stand-by" observers or is not forced to adjust fishing plans due to observer shortages. In short, it is in the best interests of the fishing industry to ensure that NMFS receives timely and accurate information about future fishing plans.

Additional equipment and technologies not currently under consideration

Several alternatives to human observers have been tested in various fisheries. The use of video cameras to monitor at-sea fishing activity is a relatively new technique, and has only been tried in limited fisheries to date. The approach involves mounting tamper-proof video cameras in various locations on the fishing deck and recording all or a portion of the vessel's fishing activity. A recently completed pilot program in the Alaska halibut fishery has found video cameras to be extremely useful in monitoring seabird bycatch and compliance with seabird avoidance measures. However, video monitoring alone is unlikely to provide an adequate method to monitor groundfish catches, PSC bycatch, or seabird bycatch monitoring. Video monitoring alone does not provide reliable species IDs for seabird species caught on hook-and-line gear.

Digital observer technology takes the use of video monitoring one step further. This technology uses a digital scanner to record multiple images of individual fish for electronic species identification and for length frequency estimates as each fish passes through the scanner on a conveyer belt. The primary developer of this technology is Digital Observer, Inc. of Kodiak, Alaska. Although this technology is still preliminary, it may be a viable alternative to human observers for collection of limited types of data on certain types of vessels and fisheries. However, current indications are that the technology is not sufficiently advanced to replace observers, especially for tasks such as species composition sampling and collection of biological samples.

To the extent that these technologies show promise, they could be included in monitoring programs for specific future management proposals. However, their application is too specialized and fishery-specific to consider for inclusion in this FMP amendment package intended to evaluate the possibility of modifying the overall service delivery model for the observer program. **The Council contracted for the preparation of a separate analysis to evaluate alternative monitoring technologies and their potential applicability to the GOA and BSAI groundfish and halibut fisheries. This analysis is included as Appendix I.**

2.2.5 Contracting process and the role of observer providers

Under all of the alternatives under consideration, private contractors would continue to be the source of observers deployed under the restructured program. The main difference under Alternatives 3 – 5 from the existing program (Alternatives 1 – 2) is that NMFS would be the entity responsible for contracting for observer coverage rather than the vessel owner. Complicated regulations and procedures already govern the Federal contracting process. Therefore, this analysis does not examine alternatives to the process that would govern direct Federal contracting for observer services. The existing Federal contracting process is described in Section 4.8 to provide the Council and the public with an understanding of how the program would operate, should one of the action alternatives be adopted. This section also explores the role of contractors under a new program, and whether single or multiple contracts, and single or multiple contractors, are preferable.

Several different contract modules are possible but are difficult to develop until the scope of work is defined. In essence, there are several ways to accomplish any task and distribute work. Contracting is flexible and will accommodate various desired scenarios. For example, the work can be broken into components regionally (BSAI or GOA), by gear type, or by vessel size class. Various combinations are also possible, as are different types of work modules. One module could be for overall coverage planning and another for the provision of observers to obtain that coverage. Once the scope of work and funding are identified, NMFS can further develop alternative contract modules for consideration. Details are provided in Section 4.8.

2.3 Summary of decision points under Alternatives 3 - 5

In sum, there are several decision points associated with one or more of the restructuring alternatives (Alternatives 3 – 5). These include:

1. **Assignment of vessel classes and fisheries into tier levels**. NMFS provided initial recommendations for the assignment of vessel classes and fisheries into the four proposed coverage tiers. The most significant change relative to the status quo is the proposed classification of trawl and hook-and-line CPs <125' into Tier 2. Because all tier classifications will be established in regulation, it is appropriate for the Council to review the proposed tier assignments and either endorse them or make alternative recommendations at the time of final

action, should Alternative 3, 4, or 5 be selected as the final preferred alternative. [Note that the Council selected Alternative 2 at final action in June 2006.]

2. **Initial fee percentage**. Because the ex-vessel value fee percentage will likely be fixed in regulation, it is essential that the initial fee percentage be chosen after careful consideration of the future coverage objectives of the program. The analysis proposes three possible fee levels for consideration.

3. **Variable or fixed fee.** Because harvest levels, prices, and coverage costs vary annually, a variable fee that self-adjusts upwards or downwards based on a multi-year running average may be the preferred approach. A five-year running average is suggested in Section 4.5.1. Alternatively, a fixed fee percentage could be established in regulation that would require subsequent Council action and regulatory amendment to adjust.

4. **Use of standard or actual prices**. NMFS recommends the use of standard prices for the ex-vessel value fee program. However, it may be possible to develop a program based on actual prices for shoreside deliveries if there is sufficient interest in doing so.

5. **Restrictions on the use of fee proceeds**. The restructuring alternatives currently limit the use of fee proceeds only to the costs directly associated with coverage by human observers. Should this alternative have been selected as the preferred alternative, the Council may have considered whether fee proceeds should be able to be used for supplemental or alternative monitoring technologies should they be proposed in the future.

2.4 Detailed summary of the alternatives

The program elements and options described in previous sections for a restructured program (**Alternatives 3 – 5**) could be combined into thousands of possible combinations; therefore, three representative restructuring alternatives were identified in addition to the no action alternative (**Alternative 1**) and the extension of the existing program (**Alternative 2**). The following table provides a summary and comparison of the action alternatives, in order to more clearly delineate among the existing program and the three alternatives considered that would represent a fundamental change to the current service delivery model. **In February 2006, the Council chose Alternative 2 as its preliminary preferred alternative, for various reasons related to cost uncertainty and statutory authority described in Chapter 1. In June 2006, the Council selected Alternative 2 as its preferred alternative (PA) at final action.**

Table 2-6 Comparison of the action alternatives (Alternatives 2 – 5)

Program Elements	*Alternative 2 (PA)*	*Alternative 3*	*Alternative 4*	*Alternative 5*
Program Scope: Which vessels and processors are included? (Note: 'no' under Alt. 3 and 4 means the fleet is not included in the new program, but would continue under the status quo)				
Halibut vessels	no	yes	yes	yes
GOA groundfish CVs < 60'	no	yes	yes	yes
GOA groundfish CVs ≥ 60'	yes	yes	yes	yes
GOA groundfish processors	yes	yes	yes	yes
GOA trawl & hook-and-line CPs	yes	yes	no	yes
BSAI groundfish vessels <60'	no	no	yes	yes
BSAI CVs <125' and pot vessels	yes	no	yes	yes

Program Elements	*Alternative 2 (PA)*	*Alternative 3*	*Alternative 4*	*Alternative 5*
BSAI CVs ≥ 125'	yes	no	no	yes
BSAI trawl and hook-and-line CPs	yes	no	no	yes
BSAI groundfish processors (non-AFA)	yes	no	yes	yes
AFA inshore processors	yes	no	no	yes
CDQ vessels	yes	no	Tier 3 and 4 vessels only	yes
Determination of coverage levels				
Coverage levels	0%, 30% and 100% coverage levels established in regulation	Vessels and processors assigned into tiers based on criteria in each fishery. In Tiers 1 and 2, 200% or 100% coverage would be mandatory. In Tiers 3 and 4, coverage levels would be determined by NMFS to maximize the utility of observer data and deploy observers in the most effective manner. Vessel operators would not be required to achieve a certain coverage level, but instead, would be required to carry an observer when one is provided by NMFS.		
Initial coverage levels for Tier 3 and 4 fisheries	Established in regulation	To be determined later based on separate, analysis. Individual vessel operators would not be responsible for achieving mandatory minimum coverage levels but would only be required to carry an observer when one is provided and when requested to do so by NMFS. The coverage levels for vessels and processors participating in fisheries with mandatory coverage requirements of 100% or greater would not change (e.g., AFA and CPs fishing CDQ).		
Funding sources				
Type of fee	Vessel contracts directly for coverage	Ex-vessel value fee program for all participants		Tier 1 and Tier 2 fisheries would pay a daily observer fee. Tier 3 and Tier 4 fisheries would pay an ex-vessel value fee
Fee collection	Vessel billed directly by observer provider	Vessel fees would be collected by processor at the time of landing and submitted to NMFS on a quarterly basis		Tier 1 and 2 vessels would be billed directly by NMFS on a quarterly basis.
Fee percentage	N/A	Uniform "baseline" fee for all participants established in regulation		
Actual or standard ex-vessel prices	N/A	NMFS recommends using standard prices. Actual prices may be a viable option for shoreside landings but not CPs.		
Supplemental funding	N/A	Supplemental fees or IFQ cost recovery fees could be used to support increased coverage for fishery-specific rationalization programs		
Initial fee percentage	N/A	Low or high endpoint options based on the status quo observer costs and coverage levels		
Process for adjusting fee percentages	N/A	Notice and comment rulemaking		
Start-up funding	none	Federal appropriations (grant or loan)		
Direct Federal funding	none	Federal appropriations to supplement or replace fee revenues		
Restrictions on the use of fee proceeds	N/A	Option for using fee proceeds to pay for electronic monitoring technologies. Potential application of technological monitoring is subject of Appendix I.		
Technological and equipment requirements				
Electronic fishing logbooks	N/A	Voluntary use of electronic logbooks encouraged by NMFS through financial		

Program Elements	*Alternative 2 (PA)*	*Alternative 3*	*Alternative 4*	*Alternative 5*
		incentives if available		
Contracting process and inseason deployments				
Inseason deployment	Determined by vessel and observer provider	Determined by NMFS based on inseason or annual coverage priorities.		
Contracting process	Vessel contracts directly with provider for coverage	NMFS contracts with one or more observer providers to obtain coverage for the vessel and processor sectors included in each alternative. Vessels and processors not included under the alternative continue to contract directly with observer providers for coverage.		

2.5 Alternatives rejected from further analysis

Observers as Federal employees. One approach to restructuring the observer program would be for NMFS to create a new program in which all groundfish and halibut observers would be Federal employees. Existing and new observers would be hired directly by NMFS as temporary seasonal employees, similar to how the U.S. Forest Service hires hundreds of seasonal employees on a temporary basis during the fire fighting season. While NMFS maintains a small cadre of observer staff who are Federal employees,[19] their role is to solve specific sampling problems on individual vessels and improve communication among NMFS, observers, and industry. The intent of the cadre is not to take the place of the observer.

An alternative to eliminate the role of observer providers and convert all observers to Federal employees is not considered practicable and not analyzed further in this document for several reasons. First, it is unlikely that such a program would be approved by the Secretary because it is inconsistent with current Federal polices that restrict Federal hiring and emphasize the role of Federal contractors. Second, NMFS does not currently have the budgetary resources to convert the program from an industry-funded program to a taxpayer-funded program. Third, the current observer providers are very experienced at the logistics of observer deployment and that expertise would be lost. Finally, contractors have far greater flexibility to hire short-term seasonal employees such as observers, than does the Federal government. For these reasons, the option to convert all observers to Federal employees was discussed and considered in several OAC meetings, and was determined not to be a viable alternative to the use of observer providers.

Joint Partnership Agreement (JPA). NMFS and the Council attempted in the late 1990s to develop a third-party JPA. This effort failed due to legal obstacles as described in Section 1.1.2. For that reason, a third-party JPA is not considered further in this document.

2.6 Related NEPA and fishery description documents

The following NEPA documents have addressed the groundfish fisheries of the BSAI and GOA in general, and the North Pacific Groundfish Observer Program in specific. This analysis relies on much of the work contained within these existing documents.

Alaska Groundfish Fisheries Programmatic Supplemental Environmental Impact Statement (PSEIS). A PSEIS was prepared to evaluate the fishery management policies embedded in the BSAI and GOA groundfish FMPs against policy level alternatives. A draft PSEIS was circulated for public review and comment from January 25 through July 25, 2001. Revision of that analysis and publication of a second

[19]The cadre is comprised of 6 Federal full-time employees (FTEs).

public review draft was distributed in September of 2003 (NMFS 2003). The final PSEIS was provided by NMFS in May 2004, and the public comment period ended July 3, 2004 (NMFS 2004).

TAC-Setting EIS. The original EISs for the BSAI and GOA FMPs were completed in 1981 and 1979 respectively. The TAC setting process was not revisited in an EIS until 1998, when an SEIS on the process of TAC setting was completed (NMFS 1998a). In that document, the impacts of groundfish fishing over a range of TAC levels were analyzed. The five alternatives were very similar to current TAC levels. Setting the TAC under the status quo procedures was found not to have significant impacts on the issues evaluated.

Annual TAC-Setting EAs. In addition to the TAC-setting EIS analysis, environmental assessments have been written to accompany each subject year's TAC setting (specifications) since 1991. One exception was the 2001 harvest specifications which were promulgated by emergency rule published in January 2001 without an accompanying analysis. That was done because the TAC specifications were set by Congressional action at the 2000 levels (Public Law 106-554). An EA was prepared on the 2001 TAC specifications in July 2001. The 2002 TAC specifications were also promulgated by emergency rule, however, an EA was completed and FONSI determination made prior to publication of the rule. The final rules for the GOA and BSAI 2005 and 2006 harvest specifications are effective February 24, 2005 through December 31, 2006.

Stock Assessment and Fishery Evaluation (SAFE) reports. The guidelines for Fishery Management Plans published by NMFS require that a SAFE report be prepared and reviewed annually for each fishery management plan. The SAFE reports are intended to summarize the best available scientific information concerning the past, present, and future condition of the stocks, marine ecosystems, and fisheries under Federal management. An economic SAFE is also prepared annually, which presents the economic status of groundfish fisheries off Alaska in terms of economic activity and outputs using estimates of catch, bycatch, ex-vessel prices and value (i.e., revenue), the size and level of activity of the groundfish fleet, and the weight and gross value of processed products.

American Fisheries Act EIS. The AFA was signed into law in October of 1998. Implementation of the AFA required major provisions to the regulations and in April of 2000, a notice of intent to prepare an EIS was published in the Federal Register. A draft EIS was published in October 2001 and a final EIS was published in February 2002.

Extending the Interim Observer Program Beyond 2002. The Council adopted and NMFS implemented the Interim Groundfish Observer Program (Interim Program) in 1996, which superseded the *North Pacific Fisheries Research Plan (Research Plan)*. The requirements of the 1996 Interim Program were extended through 1997 (61 FR 56425, November 1, 1996), again through 1998 (62 FR 67755, December 30, 1997), again through 2000 (63 FR 69024, December 15, 1998) and once again through 2007 (67 FR 72595, December 6, 2002). An Environmental Analysis was prepared for rulemaking extending the Observer Program through 2007 and analyzes the biological effects of the Observer Program in its current form.

2.7 Coordination of program restructuring with GOA Rationalization

The Council is currently in the process of developing alternatives for its GOA groundfish rationalization program. Successful implementation of a rationalization program in the GOA will depend on the development of a practical and cost-effective monitoring program to ensure that there is proper accounting of groundfish and PSC harvest.

NMFS currently manages the groundfish fisheries of the GOA by using a combination of reports from observers and processors. The current system was designed to provide the data necessary to manage aggregate groundfish and PSC quotas in open access fisheries. Under the current system, data reported to NMFS by CPs, shoreside processors, and at-sea observers are combined to generate aggregate estimates of total removals for each groundfish species or species group. PSC rates from observed vessels are extrapolated to provide estimates of total PSC bycatch on a fishery-by-fishery basis. This system is appropriate for the current fisheries in the GOA where TACs and PSC limits are managed in the aggregate. However, the current system is inadequate for monitoring rationalized fisheries because it was not designed to provide estimates of catch and bycatch on an individual vessel basis.

Because the GOA groundfish rationalization alternatives are still under development, it is not possible to outline in detail the type of monitoring that will be necessary to implement the program. However, given the direction of the alternatives as they have progressed to date, it is possible to identify some of the monitoring issues that are likely to arise. As the Council's GOA groundfish rationalization alternatives and monitoring options develop, they should be closely integrated with efforts to restructure the Observer Program, in order to ensure that the Council and NMFS develop a program that can accommodate changes anticipated under GOA groundfish rationalization.

2.8 Applicable laws and statutory changes required to implement Alternatives 3 - 5

Several laws directly affect the ability of NMFS to restructure the North Pacific Groundfish Observer Program. The most significant are the Magnuson-Stevens Act, Fair Labor Standards Act (FLSA) and Service Contract Act (SCA).

2.8.1 Magnuson-Stevens Fishery Conservation and Management Act (MSA)

The groundfish fisheries in the EEZ off Alaska are managed by NMFS under the authority of the MSA. After final Council action and on January 12, 2007, the President signed the Magnuson-Stevens Fishery Conservation and Management Reauthorization Act (Pub. Law No. 109-479). Newly-amended MSA Section 313 authorizes the Council to prepare a fisheries research plan that requires observers to be deployed in North Pacific fisheries and that establishes a system of fees to pay the costs of observer coverage. Sec. 313 is set out in its entirety below:

SEC. 313. NORTH PACIFIC FISHERIES CONSERVATION (16 U.S.C. 1862)

104-297

(a) IN GENERAL.*--The North Pacific Council may prepare, in consultation with the Secretary, a fisheries research plan for any fishery under the Council's jurisdiction except a salmon fishery which—*

(1) requires that observers be stationed on fishing vessels engaged in the catching, taking, or harvesting of fish and on United States fish processors fishing for or processing species under the jurisdiction of the Council, including the Northern Pacific halibut fishery, for the purpose of collecting data necessary for the conservation, management, and scientific understanding of any fisheries under the Council's jurisdiction; and

(2) establishes a system, or system, of fees, which may vary by fishery, management area, or observer coverage level, to pay for the cost of implementing the plan.

102-582

(b) STANDARDS.—

(1) Any plan or plan amendment prepared under this section shall be reasonably calculated to—

(A) gather reliable data, by stationing observers on all or a statistically reliable sample of the fishing vessels and United States fish processors included in the plan, necessary for the conservation, management, and scientific understanding of the fisheries covered by the plan;

(B) be fair and equitable to all vessels and processors;

(C) be consistent with applicable provisions of law; and

(D) take into consideration the operating requirements of the fisheries and the safety of observers and fishermen.

(2) Any system of fees established under this section shall—

(A) provide that the total amount of fees collected under this section not exceed the combined cost of (i) stationing observers, or electronic monitoring systems, on board fishing vessels and United States fish processors, (ii) the actual cost of inputting collected data, and (iii) assessments necessary for a risk-sharing pool implemented under subsection (e) of this section, less any amount received for such purpose from another source or from an existing surplus in the North Pacific Fishery Observer Fund established in subsection (d) of this section;

(B) be fair and equitable to all participants in the fisheries under the jurisdiction of the Council, including the Northern Pacific halibut fishery;

(C) 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;

(D) not be used to offset amounts authorized under other provisions of law;

(E) be 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, including the Northern Pacific halibut fishery;

(F) be assessed against some or all fishing vessels and United States fish processors, including those not required to carry an observer or an electronic monitoring system under the plan, participating in fisheries under the jurisdiction of the Council, including the Northern Pacific halibut fishery;

(G) provide that fees collected will be deposited in the North Pacific Fishery Observer Fund established under subsection (d) of this section;
(H) provide that fees collected will only be used for implementing the plan established under this section;

(I) 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; and

(J) meet the requirements of section 9701(b) of title 31, United States Code.

(c) ACTION BY SECRETARY.—

(1) Within 60 days after receiving a plan or plan amendment from the North Pacific Council under this section, the Secretary shall review such plan or plan amendment and either (A) remand such plan or plan amendment to the Council with comments if it does not meet the requirements of this section, or (B) publish in the Federal Register proposed regulations for implementing such plan or plan amendment.

(2) During the 60-day public comment period, the Secretary shall conduct a public hearing in each State represented on the Council for the purpose of receiving public comments on the proposed regulations.

(3) Within 45 days of the close of the public comment period, the Secretary, in consultation with the Council, shall analyze the public comment received and publish final regulations for implementing such plan.

(4) If the Secretary remands a plan or plan amendment to the Council for failure to meet the requirements of this section, the Council may resubmit such plan or plan amendment at any time after taking action the Council believes will address the defects identified by the Secretary. Any plan or plan amendment resubmitted to the Secretary will be treated as an original plan submitted to the Secretary under paragraph (1) of this subsection.

(d) FISHERY OBSERVER FUND.*--There is established in the Treasury a North Pacific Fishery Observer Fund. The Fund shall be available, without appropriation or fiscal year limitation, only to the Secretary for the purpose of carrying out the provisions of this section, subject to the restrictions in subsection (b)(2) of this section. The Fund shall consist of all monies deposited into it in accordance with this section. Sums in the Fund that are not currently needed for the purposes of this section shall be kept on deposit or invested in obligations of, or guaranteed by, the United States.*

(e) SPECIAL PROVISIONS REGARDING OBSERVERS.*--*

(1) The Secretary shall review--

(A) the feasibility of establishing a risk sharing pool through a reasonable fee, subject to the limitations of subsection (b)(2)(E) of his section, to provide coverage for vessels and owners against liability from civil suits by observers, and

(B) the availability of comprehensive commercial insurance for vessel and owner liability against civil suits by observers.

(2) If the Secretary determines that a risk sharing pool is feasible, the Secretary shall establish such a pool, subject to the provisions of subsection (b)(2) of this section, unless the Secretary determines that--

(A) comprehensive commercial insurance is available for all fishing vessels and United States fish processors required to have observers under the provisions of this section, and

(B) such comprehensive commercial insurance will provide a greater measure of coverage at a lower cost to each participant.

NOAA General Counsel, Alaska Region (GCAK) advised that the Research Plan authority provided in previous MSA Section 313 and at the time the Council took final action, could not be applied to only a subset of the vessels in the fisheries. This issue related particularly to former Sections 313(b)(E) and (F). Section 313(b)(E) required that the fee "be expressed as 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, including the Northern Pacific halibut fishery," while Section 313(b)(F) required that the fee "be assessed against all fishing vessels and United States fish processors, including those not required to carry an observer under the plan, participating in the fisheries under the jurisdiction of the Council, including the Northern Pacific halibut fishery."

At the time the Council took final action, none of the restructuring alternatives proposed (Alternatives 3 – 5) would have assessed the same ex-vessel value based fee on all fishing vessels and processors participating in fisheries (including halibut) under the jurisdiction of the Council. Alternative 3 would have assessed the ex-vessel based fee only on vessels and processors active in the GOA, and Alternatives 4 and 5 would have assessed the ex-vessel based fee only on vessels and processors that had less than 100% observer coverage requirements. Alternative 4 would have left vessels and processors that required 100% or more observer coverage in the existing pay-as-you-go program. Alternative 5 would have assessed a different fee (daily observer fee) on vessels and processors that required 100% or more observer coverage.

Therefore, at the time the Council took final action, all alternatives except no action (Alternative 1) and extension of the existing program (Alternative 2) would have required statutory authorization unless it had been determined that different fees could have been assessed against different fisheries or sectors.

The reauthorized Magnuson-Stevens Act Section 313 includes language that would appear to allow the Council to adopt a fee collection program as considered in the analysis (see above). However, the exact nature of the fee program authorized by the Magnuson-Stevens Act must be determined, the Council must consider a new amendment to restructure the current Observer Program, and NMFS must undergo rulemaking to implement a new Observer Program. Therefore, implementing a fee collection and restructured Observer Program prior to the December 31, 2007, expiration date would be difficult. Additionally, the observer cost issues described above remain unresolved. For these reasons, Alternative 2 remains the only viable alternative in the short term.

2.8.2 Fair Labor Standards Act of 1938 (FLSA)

The FLSA establishes minimum wage, overtime pay, recordkeeping, and child labor standards affecting full-time and part-time workers in the private sector and in federal, state, and local governments. The FLSA establishes a nation-wide overtime pay standard of not less than one and one-half time the regular rate of pay for all hours worked in excess of 40 in a workweek. The basic minimum wage provisions of the FLSA are set out in Section 6 of the Act, overtime requirements are in Section 7, exemptions from both the minimum wage and overtime requirements are in Section 13(a), and exemptions from the overtime requirements are in Section 13(b) (DOL 2002).

The FLSA is administered by the Wage and Hour Division of the United States Department of Labor, which conducts audits and workplace inspections.[20] The Administrator of the Wage and Hour Division has no unilateral enforcement authority, but may bring a lawsuit in Federal court. As a practical matter, this is relatively rare. The FLSA provides for direct Federal actions by employees. The FLSA, at 29 U.S.C. § 216, provides that workers who are underpaid can recover not only the minimum wages and

[20]See generally 29 U.S.C. § 204.

liquidated damages due to them, but also an equal amount as liquidated damages. They can also recover reasonable attorney fees. At 29 U.S.C. § 215, the FLSA prohibits retaliation against employees who make complaints and requires employers to keep records of the hours worked by all employees, even those who are exempt (Wikipedia 2006).

The law originally contained a large number of special industry exemptions, many of which were designed to protect traditional pay practices in small, rural businesses. Some of these exemptions have been repealed, but many remain in place for the agricultural, transportation and maritime industries. Both fishermen and seafood processors are exempt from overtime pay requirements as are merchant seamen. However, those exemptions are narrowly written and fisheries observers do not appear to fall into any of those three categories.

The FLSA also provides for exemptions applicable to professional, administrative and executive employees.[21] NMFS has previously stated that it contends that fisheries observers are technicians and, therefore, do not qualify for the FLSA overtime exemption for professional employees. NMFS most recently stated this opinion in a November 29, 2005 letter to Arni Thomson of the Alaska Crab Coalition.[22] However, many observer providers currently operating in the North Pacific do not share this view, and observer providers do not currently pay a *daily* overtime wage under the contracts or collective bargaining agreements in effect for North Pacific observers. Observer providers indicate they have received legal advice indicating that they are correct in classifying their observers as exempt professionals.[23] This issue is as yet unresolved.

2.8.3 McNamara-O'Hara Service Contract Act of 1965 (SCA)

The SCA was intended to remove wages as a factor in the competition for Federal service contracts by requiring the payment of not less than the locally prevailing wage rates and fringe benefits, or in certain cases, the wage rates and fringe benefits contained in a predecessor contractor's collective bargaining agreement. The SCA was thought to relieve pressure on Federal contractors to restrict wages in order to win contracts, given that labor costs are often the predominant factor affecting bids on Federal service contracts.

The SCA applies to most contracts entered into by the United States that are principally for the furnishing of services through the use of service employees. For the purpose of the SCA, observers are considered service employees. The major components of the SCA are: (1) prevailing minimum wage and fringe benefit compensation standards for service employees working on contracts over $2,500, (2) recordkeeping and posting requirements, and (3) safety and health protection measures.

Subsection 2(a) of the SCA states:

> *Sec. 2(a) Every contract (and any bid specification therefore) entered into by the United States or the District of Columbia in excess of $2,500, ... whether negotiated or advertised, the principal purpose of which is to furnish services in the United States through the use of service employees shall contain the following:*
>
> *(1) A provision specifying the minimum monetary wages to be paid the various classes of services employees in the performance of the contract or any subcontract thereunder, as determined by the Secretary [of Labor], or her authorized representative, in accordance with prevailing rates for such*

[21] Note that on August 23, 2004, changes to the FLSA's overtime regulations went into effect, making substantial modifications to the definition of an "exempt" employee.

[22] Letter from William Hogarth to Arni Thomson, November 29, 2005. See Appendix II.

[23] Michael Lake, President, Alaska Observers Inc., personal communication.

employees in the locality or where a collective bargaining agreement covers any such service employees, in accordance with the rates for such employees provided for in such agreement, including prospective wage increases provided for in such agreement as a result of arm's-length negotiations.

(2) A provision specifying the fringe benefits to be furnished the various classes of service employees....

Each year, the DOL receives requests for wage determinations for employees engaged in approximately 60,000 government service contracts covered under the SCA. Total annual Federal government service contracting has been estimated in the billions of dollars. These SCA-covered contracts involve the performance of a wide range of services, including such diverse activities as aerial spraying, barber and beauty shop services, computer services, electronic equipment maintenance, furniture repair, surveying and mapping, trash removal, warehousing, and of course, fishery observing (DOL 2002).

The SCA requires that all observer providers contracted by the Federal government (NMFS) for observer services must obtain wage determinations from the DOL which will establish minimum wages and fringe benefits that must be paid. The DOL has a complicated process for making prevailing wage determinations but generally establishes prevailing wages through one of several ways:

1. **Wage surveys.** Wage surveys are conducted by the DOL for specific job classifications in specific regions. To date, the DOL has not conducted wage surveys for fisheries observers.

2. **Federal Grade Equivalency.** Under this method, the DOL determines the grade levels that would be assigned to such occupations if the work was done by Federal employees. The DOL then establishes a prevailing wage based on the wage scale that would be in effect for Federal employees doing the same work.

3. **Union Dominance.** The SCA regulations provide that "where a single rate is paid to a majority (50 percent or more) of the workers in a class of service employees engaged in similar work in a particular locality, that rate is determined to prevail" (29 CFR 4.51(b)). These majority rate prevailing wage determinations are typically called union dominance wage determinations.

4. **Collective Bargaining Agreement – (Successorship).** Determinations that set forth the wage rates and fringe benefits, including accrued and prospective increases, contained in a collective bargaining agreement applicable to the service employees who performed on a predecessor contract in the same locality (SCA Sections 4(c) and 2(a)(1) and (2)). In other words, when one Federal contractor is operating under a CBA and is subsequently replaced by a non-union contractor that does not have a CBA in effect, the successor contractor is generally obligated to continue to pay the wages and fringe benefits that were set out in the CBA of the predecessor (DOL 2002).

At the present time, more than 50% of the observers working in the North Pacific are unionized and paid under CBAs signed by a majority of the observer providers operating in the North Pacific. Thus, one could speculate that the DOL could use the principle of union dominance in establishing prevailing wages for North Pacific observers. However, it is necessary to understand the exemption status of observers under the FLSA in order to project what SCA wages might look like under a future system of Federal contracting under Alternatives 3 - 5. The DOL has not yet provided NMFS with clarification as to whether observers can bargain away the right to overtime pay through the collective bargaining process and whether the resulting CBA would be used to determine prevailing wages under the principle of union dominance.

Chapter 3 Environmental Assessment

An environmental assessment (EA) as described by the National Environmental Policy Act (NEPA) of 1969 is used to determine whether the Federal action considered will result in a significant impact on the human environment. If the action is determined not to be significant based on an analysis of relevant considerations, the EA and resulting finding of no significant impact (FONSI) will be the final environmental documents required by NEPA. If the analysis concludes that the proposal is a major Federal action significantly affecting the human environment, an environmental impact statement (EIS) must be prepared.

The environmental impacts generally associated with fishery management actions are effects resulting from: (1) harvest of fish stocks which may result in changes in food availability to predators and scavengers, changes in the population structure of target fish stocks, and changes in the marine ecosystem community structure; (2) changes in the physical and biological structure of the marine environment as a result of fishing practices, e.g., effects of gear use and fish processing discards; and (3) entanglement/entrapment of non-target organisms in active or inactive fishing gear.

3.1 Affected environment and management of the fisheries

The TAC Specifications EIS describes, among other things, the TAC-setting process. Chapter 3 of the Alaska Groundfish Fisheries PSEIS (NMFS 2004) provides a detailed description of the affected environment, including extensive information on the BSAI and GOA fishery management areas, marine resources, ecosystem, and economic parameters. The following paragraphs summarize key information in the PSEIS as they related to the analyzed resources analyzed in this EA:

Section 3.5.1 (Bering Sea and Aleutian Islands Target Groundfish Species) This section presents descriptions of major target species, summarizing important life history traits, their habitat environment, prey base, past effects, stock management, stock assessment, and current status and trends of the stocks.

Section 3.5.2 (Prohibited Species) Retention of prohibited species is forbidden in the BSAI and GOA groundfish fisheries. These species were typically utilized in domestic fisheries prior to the passage of the MSA in 1976. Retention was prohibited in the foreign, joint venture, and domestic groundfish fisheries to eliminate any incentive that groundfish fishermen might otherwise have to target these species. The prohibited species include:

- Pacific halibut (*Hippoglossus stenolepis*)
- Pacific salmon and Steelhead trout (*Oncorhynchus mykiss*).
- Pacific herring (*Clupea pallasi*).
- Red king crab (*Paralithodes camtschaticus*), blue king crab (*P. Platypus*), golden or brown king crab (*Lithodes aequispinus*), bairdi Tanner crabs (*Chionoecetes bairdi*), and opilio Tanner crabs (*C. opilio).*

Section 3.8 (Marine Mammals) The purpose of this chapter in the PSEIS is to describe the baseline condition of marine mammals as they relate to the federally managed groundfish fishery in Alaska. This baseline condition includes a description of the pertinent natural history for each species and an assessment of the various natural and anthropogenic factors that have shaped the status of each species in Alaskan waters. These accounts summarize the human and natural effects on each species, to the extent that they are known.

Section 3.7 (Seabirds) The purpose of this chapter in the PSEIS is to describe the baseline condition of seabirds as they relate to the federally managed groundfish fishery in Alaska. This baseline condition includes a description of the pertinent natural history for each species and an assessment of the various natural and anthropogenic factors that have shaped the status of each species in Alaskan waters. These accounts summarize the human and natural impacts on each species, to the extent that they are known.

Section 3.4 (Threatened and Endangered Species) Twenty-five species occurring in the BSAI and/or GOA groundfish management areas are currently listed as endangered or threatened under the ESA: seven great whales, one pinniped, 13 Pacific salmon, three birds, and one turtle. In summary, species listed under the ESA are present within the management area. Some may be negatively affected by groundfish fishing. NOAA Fisheries is the expert agency for ESA-listed marine mammals. The USFWS is the expert agency for ESA-listed seabirds.

Section 3.10 (Ecosystem) This section of the PSEIS discusses the affected environment at the ecosystem level. It provides three kinds of information:

1. It summarizes relevant historical information and recent scientific data on the North Pacific Ocean ecosystem;
2. It discusses interactions among climate, commercial fishing, and ecosystem relationships in the North Pacific Ocean from a multi-species perspective, including climatic processes that may act as forcing agents on the BSAI and GOA ecosystems, producing background changes that are independent of human activities such as commercial fishing; and
3. It reviews indicators of the present status of the BSAI and GOA ecosystems that help to form the baseline for assessing and comparing potential future environmental consequences.

Section 3.6 (Habitat) PSEIS analysis focuses on benthic habitat, which is generally believed to be at greater risk to the impacts of fishing than non-benthic habitat in the water column. In addition, much of the analysis focuses on the impacts of bottom trawling. It is recognized that fixed gear (longlines, pots, and jigs) or pelagic trawl gear that comes in contact with the sea floor can disturb benthic habitat. Pelagic trawls are fished "lightly on the bottom," and fishing on the sand and mud flats of the Bering Sea during daytime tends to involve a higher percentage of limited bottom contact involving the "fishing line" and leading edge of the first row of meshes. In some types of habitat, fixed gear may cause an impact due to its ability to be more easily fished on rougher substrates (e.g., boulders with coral) than bottom trawl gear.

The North Pacific Groundfish Observer Program (observer program) is the largest observer program in the United States and plays a critical role in the conservation and management of groundfish, other living marine resources, and their habitat. Data collected by the Observer Program are used for a wide variety of purposes including: (1) stock assessment; (2) monitoring groundfish quotas; (3) monitoring the bycatch of groundfish and non-groundfish species; (4) assessing the effects of the groundfish fishery on other living marine resources and their habitat; and (5) assessing methods intended to improve the conservation and management of groundfish and other living marine resources.

The mission of the observer program is to provide the highest quality data to promote stewardship of the North Pacific living marine resources for the benefit of the nation. The goal of the observer program is to provide information essential for the management of sustainable fisheries, associated protected resources, and marine habitat in the North Pacific. This goal is supported by objectives that include:

- Provide accurate and precise catch, bycatch, and biological information for conservation and management of groundfish resources and the protection of marine mammals, seabirds, and protected species.

- Provide information to monitor and promote compliance with NOAA regulations and other applicable programs.
- Support NMFS and the Council policy development and decision making.
- Foster and maintain effective communications.
- Conduct research to support the mission of the North Pacific Groundfish Observer Program.

The North Pacific Groundfish Observer Program has an integral role in the management of North Pacific fisheries. Information collected by observers is used by managers, scientists, enforcement agents, and other agencies in supporting their own missions. Observers provide catch information for quota monitoring and management of groundfish and prohibited species, biological data and samples for use in stock assessment analyses, information to document and reduce fishery interactions with protected resources, and information and samples used in marine ecosystem research. The Observer Program provides information, analyses, and support in the development of proposed policy and management measures. Further, observers interact with the fishing industry on a daily basis and the Observer Program strives to promote constructive communication between the agency and interested parties. Observations are used by managers and enforcement personnel to document the effectiveness of the management programs of various entities including NMFS, the U.S. Coast Guard, and the U.S. Fish and Wildlife Service. In order to provide these services, the Observer Program Office routinely conducts research projects and analyses designed to assess the efficacy of management programs.

3.2 Purpose of the action

Observer Program history, background information, and a detailed section on the need for and development of this proposed action is discussed in Chapter 1. The following problem statement was approved by the Council in February 2003 and modified to add the last paragraph in February 2006.

Observer Analysis 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. 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.

While the Council continues to recognize the issues in the problem statement above, existing obstacles prevent a comprehensive analysis of potential costs. Immediate Council action on a restructured program is not possible until information is forthcoming that includes clarification of cost issues that arise from Fair Labor Standards Act and Service Contract Act requirements and statutory authority for a comprehensive cost recovery program. During the interim period, the Council must take action to prevent the expiration of the existing program on December 31, 2007.

The problem statement identifies a need to have a more flexible program structure, such that NMFS can control when and where observers are deployed, in response to dynamic data and management needs. The problem statement also recognizes that some vessels face observer costs that are disproportionately high relative to their gross earnings, due to the current funding mechanism and program structure. Finally, the problem statement notes that existing obstacles prevent a comprehensive analysis of potential costs of a restructured program, and new statutory authority is necessary to implement any of the proposed restructuring alternatives. However, the problem statement also notes that the Council must take action to prevent the expiration of the existing program on December 31, 2007, and that a comprehensive analysis of observer restructuring is not possible until cost issues arising from Fair Labor Standards Act and Service Contract Act requirements are clarified.

3.3 Environmental impacts of the alternatives

The effects of groundfish fishing on the ecosystem, social, and economic environment are contained in the PSEIS and are incorporated into this analysis by reference. This analysis includes only those effects that are additional and attributable to promulgation of rulemaking to continue and/or restructure the North Pacific Groundfish Observer Program. Analysis of impacts are based largely on analyses prepared for each stock, species, or species group in the BSAI and GOA are contained in the EA for the 2006 Total Allowable Catch (TAC) specifications. The TAC setting process is the basis for defining upper harvest limits, or fishery removals, for the subject fishing year. Catch specifications are set for each managed species or species group, and in some cases, by species and sub-area. Sub-allocations of TAC are made for biological and socio-economic reasons according to percentage formulas established through FMP amendments. For particular target fisheries, TAC specifications are further allocated within management areas (Eastern, Central, Western Aleutian Island, Bering Sea, Western, Central, and Eastern GOA) among management programs (limited access or community development quota program), processing components (inshore or offshore), specific gear types (trawl, non-trawl, hook-and-line, pot, jig), and seasons. TAC can be sub-allocated to the various gear groups, management areas, and seasons according to pre-determined regulatory actions and for regulatory announcements by NMFS management authorities opening and closing the fisheries accordingly. The entire TAC amount is available to the domestic fishery. The gear authorized in the Federally-managed groundfish fisheries off Alaska includes trawl, hook-and-line, hook-and-line pot, pot, and jig (50 CFR 679.2).

The fishing year coincides with the calendar year, January 1 to December 31. Depending on the target species' spatial allocation, additional specifications are made to particular seasons (defined portions of the year or combinations of defined portions of the year) within the fishing year. Any TACs not harvested during the year specified are not rolled over from that fishing year to the next. Fisheries are opened and closed by regulatory announcement. Closures are made when inseason information indicates the apportioned TAC or available PSC limit has been or will soon be reached, or at the end of the specified season, if the particular TAC has not been taken.

TAC specifications for the Federal groundfish fisheries are set annually. The process includes review of the Stock Assessment and Fishery Evaluation (SAFE) reports by the Council and by the Council's Advisory Panel (AP) and Scientific and Statistical Committee (SSC). Using the information from the SAFE Reports and the advice from Council committees, the Council makes both Acceptable Biological Catch (ABC) and TAC recommendations toward the next year's TAC specifications. NMFS packages the recommendations into specification documents and forwards them to the Secretary of Commerce for approval on an annual basis.

The Observer Program was implemented in 1990 to collect data necessary to support the management of the North Pacific fisheries. This includes monitoring harvest amounts consistent with specified TACs and the collection of data that is incorporated into annual stock assessments. The Observer Program provides information to monitor the effectiveness of, and compliance with, fisheries management decisions made through the annual TAC setting process and the effects they have on the human and natural environment.

This section forms the analytic basis for comparisons of the effects to the human environment across alternatives to restructure the Observer Program. Significance is determined by considering the context in which the action will occur and the intensity of the action. The context in which the action will occur includes the specific resources, ecosystem, and human environment affected. The intensity of the action includes the type of impact (beneficial versus adverse), duration of impact (short versus long term), magnitude of impact (minor versus major), and degree of risk (high versus low level of probability of an impact occurring). Further tests of intensity include: (1) the potential for compromising the sustainability of any target or non-target species; (2) substantial damage to marine habitats and/or essential fish habitat

(EFH); (3) impacts on public health and safety; (4) impacts on endangered or threatened species or critical habitat of listed species; (5) cumulative adverse impacts that could have substantial effects on target or non target species; (6) impacts on biodiversity and ecosystem function; (7) significant or economic impacts if significant social or economic impacts are interrelated with significant natural or physical environmental effects; and (8) degree of controversy (NAO 216-6, section 6.02).

Differences between direct and indirect effects are primarily linked to the time and place of the impact. Direct effects are caused by the action and occur at the same time and place as the impact of the action. Indirect effects occur later in time and/or further removed in distance from the direct effects (40 CFR 1508.27). For example, the direct effects of an alternative that lowers the harvest level of a target fish could include a beneficial impact on the targeted stock of fish, neutral impact on the ecosystem, and an adverse impact on net revenues to fishermen. The indirect effects of that action could include beneficial impacts on the ability of Steller sea lions to forage for prey, neutral impacts on incidental levels of PSC, and adverse impacts in the form of multiplier effects reducing employment and tax revenues to coastal fishing communities.

Note that the annual TAC specifications and PSC limits that are implemented each year through proposed and final rulemaking are separate and distinct actions from this one. Those actions are informed by an EA prepared annually on the TAC specifications and PSC limits. Likewise, parameters under which the North Pacific groundfish fisheries operate (who, what, where, when), remain in effect. Therefore, the effects of this proposed action and alternatives to it, which will determine some of the parameters under which those fisheries will be monitored, are evaluated based on the assumption that the effects of the fisheries themselves on the marine resources have been evaluated in separate NEPA analyses.

It is assumed that each alternative under consideration would be implemented in conjunction with harvest limits set annually by the TAC specification process and according to current regulations governing fishing within the EEZ off Alaska (50 CFR 679). Further, if overfishing levels were detected, NMFS and the Council would take action to close or curtail harvest effort.

Each section below includes an explanation of the criteria used to establish significance and a determination of 'significance' (beneficial or adverse), 'insignificance,' or 'unknown' for each resource, species, or issue being treated. These criteria are the same as those used to evaluate the effects on resources of alternatives proposed for the TAC setting process. In general, the discussions and rating criteria are qualitative in nature. In instances where criteria to determine significance does not logically exist, none are noted.

3.3.1 Effects of expiration of the program under the no action alternative

Under the no action alternative (Alternative 1), the Observer Program would expire at the end of 2007, if no other action is taken to extend the program. Alternative 2 of the final PSEIS (NMFS 2004) analyzes the effects of the elimination of the Observer Program. The expiration of the Observer Program requirements would apply to all groundfish fisheries, with the exception of the AFA and CDQ pollock fisheries, which represents an 80% reduction in observer days. The observer coverage requirements for the AFA and CDQ pollock fisheries are mandated by Congressional legislation (the AFA), and this legislation would remain in effect regardless of the expiration of the program in 2007. However, absent the Observer Program, there is no mechanism with which this coverage can be provided. (NMFS may be required to promulgate regulations supporting an observer program specifically for these programs.) The implications of this expiration are discussed in the draft PSEIS relative to target species, the food web, bycatch, and allocation issues.

Also under Alternative 2 of the PSEIS, existing requirements for vessel captains to provide estimates of total catch and discards, limited species composition data, and haul times and locations would continue. However, observers provide additional information on commercial fishing harvests that may not be otherwise captured by survey vessels or vessel logbook information. Stock assessment data is collected by observers, such as age structures and stomach samples, and fishery scientists use the Observer Program as a platform from which to complete special projects. Also, interactions with marine mammals and seabirds are recorded by observers. The expiration of the Observer Program would increase the reliance on industry data, which is less accurate in terms of total catch and discard estimates, and is not as precise in terms of species reporting. As a result, stock assessment scientists may adapt to the lack of precision by generating more conservative catch limit estimates.

While the potential expiration of the current program regulations warrants discussion, Alternative 1 (no action) does not represent the elimination of the North Pacific Groundfish Observer Program at the time of final action on this amendment. Alternative 1 represents the situation in which no restructuring effort is undertaken, and no effort is taken to extend the existing pay-as-you-go system beyond its current expiration date of December 31, 2007.

3.3.2 Council preferred alternative

At its February 2006 meeting, the Council identified Alternative 2 as its preliminary preferred alternative and approved an addition to the problem statement to recognize that while Alternative 2 does not meet the majority of the issues identified in the problem statement, it is the only alternative that likely meets the short-term need of preventing the expiration of the observer program until several external issues are resolved. These issues are described in detail in Sections 2.8 and 4.4.3 and summarized below. **In June 2006, the Council selected Alternative 2 as its final preferred alternative.**

A significant ongoing issue affecting the development of the alternatives and analysis is related to observer compensation and the applicability of the overtime pay provisions in the Fair Labor Standards Act (FLSA). In February 2005, the NMFS Alaska Region and NPGOP sent a memo to NMFS Headquarters requesting concurrence with its determination that North Pacific groundfish observers should be classified as professionals under the FLSA.[24] Such a determination would make observers exempt from the overtime pay provisions of the FLSA.

On November 29, 2005, NMFS Headquarters indicated in two letters that the agency has examined the issue and continues to believe that observers should be classified as technicians under the FLSA, and therefore should be entitled to overtime pay.[25] First, NMFS Headquarters responded to industry inquiries about whether observers could be classified as professionals exempt under the FLSA. NMFS responded that observers should be classified as technicians, and should therefore be eligible for overtime pay:

> *The classification of observers under our authority (i.e., federal employees, federally contracted employees, and third-party contractors using federal funds) as "professionals" would require a determination that they meet all FLSA criteria for a learned professional exemption found at 29 CFR 541.300 – 541.301. We have recently re-examined the duties, qualification, and compensation of our observers, and compared this information to the governing requirements of FLSA and the Service Contract Act 41*

[24] Memo from James Balsiger and Douglas DeMaster to William Hogarth, February 4, 2005. See Appendix II.

[25] Letter from William Hogarth to Arni Thomson, November 29, 2005, and letter from William Hogarth to Alfred Robinson, Wage and Hour Division, Department of Labor, November 29, 2005.

USC 351, et seq.). We concluded that observers under our authority do not meet the requirements for a professional exemption under the FLSA.[26]

Second, NMFS Headquarters drafted a letter to the Wage and Hour Division of the Department of Labor (DOL) requesting an interpretation of the applicability of the Service Contract Act (SCA) and FLSA to fisheries observers employed by NMFS and by observer service providers that are either under contract with or given permits by NMFS.[27] The letter requested guidance on computing hours worked and the associated rules governing compensation of fishery observers, and the applicability of the SCA and FLSA on land, in the territorial sea of the EEZ, and in international waters. The letter detailed many circumstances unique to working at sea on fishing boats in which the applicable laws are less than clear. At the February 2006 Council meeting, NMFS indicated to the Council that it did not anticipate receiving a response from the DOL in time for final action on a restructuring alternative in early 2006, and indicated that responses to the most difficult questions may not be definitive in any event. Without additional information on the applicability of the FLSA provisions, the classification of working versus non-working hours, and verification of hours worked, NMFS and analysts are unable to provide a comprehensive assessment of observer costs under a new service delivery model.

In addition to the overtime pay issue, it is also important to note that NOAA General Counsel, Alaska Region (GCAK) has made a preliminary determination that the Research Plan authority provided in the MSA (Section 313) to assess a fee for observer coverage cannot be applied only to 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 action alternatives except Alternative 2 (extension of the current program) were likely to require statutory authorization at the time the Council took action.

Given the events above, NMFS submitted a letter to the Council (January 22, 2006) prior to the February Council meeting, recommending that the Council extend the existing program until a number of critical cost-related issues and statutory barriers are resolved.[28] NMFS recommended that the Council adopt Alternative 2 to maintain the current program based on the fact that: 1) Congressional authority necessary to implement any of the fee-based alternatives has not yet occurred, 2) it is not possible to estimate costs associated with the fee-based alternatives until overtime pay issues are clarified by the Department of Labor or in statute; and 3) the current observer program expires on December 31, 2007.

The Observer Advisory Committee (OAC) met in late January 2006 to provide recommendations on the analysis and review the NMFS letter described above. The committee ultimately recommended that the Council select Alternative 2 as its preferred alternative for this analysis, given the need for continuing the program in the short-term and the lack of control over the Congressional authority and cost issues.

As previously stated in Chaper 1, at its February 2006 meeting, the Council discussed the NMFS and OAC recommendations. Because it appeared reasonable to delay any action on restructuring the Observer Program (Alternatives 3 – 5) until the issues described above were resolved, the Council also discussed whether to initiate subsequent action and analytical documents that would include current Alternatives 1 and 2 only. Some members of the Council were concerned that a decision to adopt Alternative 2 could be taken out of context, and not reflect their efforts and reasoning for adopting an extension to the current program despite it's problems and shortcomings. This scenario is likely exacerbated by submitting an analysis to the Secretary that is limited only to Alternatives 1 and 2. Based

[26] Letter from William, T. Hogarth, Ph.D to Arni Thomson, November 29, 2005 (See Appendix II).

[27] Letter from William T. Hogarth, Ph.D. to Alfred B. Robinson, Jr. Deputy Administrator, Wage and Hour Division, U.S. Department of Labor, November 29, 2005 (See Appendix II).

[28] Letter from Robert D. Mecum, Acting Administrator, Alaska Region to Stephanie Madsen, Chair, North Pacific Fishery Management Council, January 22, 2006. See Appendix II.

on these discussions and with concurrence from NMFS, the Council chose not to initiate a separate analysis to extend the Observer Program beyond 2007, but rather continue to include analysis of Alternatives 3-5 at this time. By including these alternatives, the public could better understand how the Council arrived at its decision.

With this in mind, the Council identified Alternative 2 as its preliminary preferred alternative at its February 2006 meeting and approved an addition to the problem statement to recognize that, while Alternative 2 does not meet the majority of the issues identified in the problem statement, it is likely the only alternative that meets the short-term need of preventing the expiration of the observer program, until these external issues are resolved. At the same time, 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. The Council also requested that subsequent amendment packages regarding the Observer Program should include an option for the Federal funding of observers.

The Council also requested in February 2006 that NMFS prepare a discussion paper on issues and internal agency process for the use of video equipment to complement and augment observer monitoring of the North Pacific groundfish fisheries under the current service delivery model. A preliminary review of this discussion paper is scheduled for the June 2006 Council meeting.

At its June 2006 meeting, the Council identified Alternative 2 as its final preferred alternative.[29] Alternative 2 results in an extension of the existing Observer Program by removing the expiration date in Federal regulations. The Council, in reviewing the January 2006 letter from NMFS, the public review draft of the analysis, and public testimony, recognized that Alternative 2 is likely the only viable short-term action alternative at this point, given the unresolved questions about labor costs under a restructured program and the lack of statutory authority to implement the multiple funding mechanisms contained in Alternatives 3 - 5.

On January 12, 2007, the President signed the Magnuson-Stevens Fishery Conservation and Management Reauthorization Act (Pub. Law No. 109-479). The reauthorized Magnuson-Stevens Act includes language that would appear to allow the Council to adopt a fee collection program as considered in the analysis. However, the exact nature of the fee program authorized by the Magnuson-Stevens Act must be determined, the Council must consider a new amendment to restructure the current Observer Program, and NMFS must undergo rulemaking to implement a new Observer Program. Therefore, implementing a fee collection and restructured Observer Program prior to the December 31, 2007, expiration date would be difficult. Additionally, the observer cost issues described above remain unresolved. For these reasons, Alternative 2 remains the only viable alternative in the short term.

While Alternative 2 would not achieve some of the objectives outlined in the problem statement such as improvements to data quality and the reduction of disproportionate observer costs born by many small vessel operators, it is the only alternative that would achieve the primary objective of the problem statement to maintain a groundfish Observer Program beyond the current expiration date of December 31, 2007. In its motion, the Council recognized the importance of providing continuity in the current groundfish observer program, containing or reducing observer costs as possible, and the ongoing and primary need for target and bycatch data provided by the observer program. The Council also noted that a subsequent analysis may be necessary to refine elements of the current observer program, until such time

[29] Council motion by Arne Fulgvog, June 11, 2006.

that the cost and statutory obstacles are resolved and a new observer service delivery model can be implemented.

3.3.3 Effects on fish species

Assessing the effects of each alternative on target commercial fish species was accomplished by asking the following questions of each of the five alternatives for each target species or species group for which a TAC amount is being specified:

- How much effect does the alternative have on fishing mortality?
- How much effect does the alternative have on spatial or temporal concentration of the species?
- How much effect does the alternative have on the availability of prey for the target species?
- How much effect does the alternative have on the target species' habitat?

Analyses of impacts are based largely on analyses prepared for each stock, species, or species group in the BSAI and GOA contained in the EA for the annual TAC setting process. These ratings use a minimum stock size threshold (MSST) as a basis for positive or negative impacts of each alternative. A thorough description of the rationale for the MSST can be found in National Standard Guidelines 50 CFR 600 (63 FR 24212-24237). The TACs, as specified, are based on spawning stock biomass that are expected to be above the MSST, and the probability that overfishing would occur within the TAC levels is low for all the stocks. The target species stocks are currently above their MSSTs and, based on the TAC levels, overfishing of spawning stock would not be expected. Table 3-1 outlines the criteria used to estimate significance of effects on groundfish stocks in the GOA and BSAI.

Table 3-1 Criteria used to estimate the significance of the effects of the alternatives on targeted groundfish stocks in the GOA and BSAI

Direct Effects	Significant Adverse	Significant Beneficial	Insignificant	Unknown
Fishing Mortality	Reasonably expected to jeopardize the capacity of the stock to produce MSY on a continuing basis	NA	Reasonably *not* expected to jeopardize the capacity of the stock to produce MSY on a continuing basis	Unknown fishing mortality rate
Leads to change in genetic structure of population	Evidence of genetic sub-population structure and evidence that monitoring distribution of harvest leads to detectable decrease in genetic diversity such that it jeopardizes the ability of the stock to sustain itself at or above the MSST	Evidence of genetic sub-population structure and evidence that monitoring distribution of harvest leads to detectable increase in genetic diversity such that it enhances the ability of the stock to sustain itself at or above the MSST	Evidence that monitoring distribution of harvest is *not* sufficient to alter the genetic sub-population structure such that it jeopardizes the ability the of the stock to sustain itself at or above the MSST	MSST and genetic structure is unknown. Therefore no information to evaluate whether monitoring distribution of the catch changes the genetic structure of the population such that it jeopardizes *or* enhances the ability of the stock to sustain itself at or above the MSST
Change in reproductive success	Evidence that monitoring distribution of harvest leads to detectable decrease in reproductive success such that it jeopardizes the ability of the stock to sustain itself at or above the MSST	Evidence that monitoring distribution of harvest leads to detectable increase in reproductive success such that it enhances the ability of the stock to sustain itself at or above the MSST	Evidence that monitoring distribution will *not* change reproductive success such that it jeopardizes the ability of the stock to sustain itself at or above the MSST	MSST is unknown. Therefore no information regarding the potential impact of monitoring distribution of the catch on reproductive success such that it jeopardizes *or* enhances the ability of the stock to sustain itself at or above the MSST

Indirect Effects	Significant Adverse	Significant Beneficial	Insignificant	Unknown
Change in prey availability	Evidence that monitoring current harvest levels and distribution of harvest lead to a change in prey availability such that it jeopardizes the ability of the stock to sustain itself at or above the MSST	Evidence that monitoring current harvest levels and distribution of harvest lead to a change in prey availability such that it enhances the ability of the stock to sustain itself at or above the MSST	Evidence that monitoring current harvest levels and distribution of harvest do *not* lead to a change in prey availability such that it jeopardizes the ability of the stock to sustain itself at or above the MSST	MSST is unknown. Therefore no information that monitoring current harvest levels and distribution of the harvest lead to a change in prey availability such that it enhances *or* jeopardizes the ability of the stock to sustain itself at or above the MSST
Habitat: Change in suitability of spawning, nursery, or settlement habitat	Evidence that monitoring current levels of habitat disturbance are sufficient to lead to a decrease in spawning or rearing success such that it jeopardizes the ability of the stock to sustain itself at or above the MSST	Evidence that monitoring current levels of habitat disturbance are sufficient to lead to an increase in spawning or rearing success such that it enhances the ability of the stock to sustain itself at or above the MSST	Evidence that monitoring current levels of habitat disturbance are *not* sufficient to lead to a detectable change in spawning or rearing success such that it jeopardizes the ability of the stock to sustain itself at or above the MSST	MSST is unknown. Therefore no information that monitoring current levels of habitat disturbance are sufficient to lead to a detectable change in spawning or rearing success such that it jeopardizes *or* enhances the ability of the stock to sustain itself at or above the MSST

NA = not applicable.

Summary of the effects of Alternative 1 on fish stocks. Alternative 1 is the no action alternative under which the North Pacific Groundfish Observer Program would expire at the end of 2007. This alternative could have potentially significant adverse effects on fish stocks if independent monitoring by observers ceased, as many fisheries would be able to proceed without independent monitoring by NMFS. NMFS would lose critical tools necessary to properly manage the groundfish fisheries off Alaska, both for inseason management and stock assessment purposes.

Summary of the effects of Alternative 2 on fish stocks. Alternative 2 (Council preferred alternative) is the rollover alternative, in which the current program would continue beyond 2007. In this case, monitoring levels are considered to be baseline with respect to the other alternatives. Under this alternative, there would be no practical changes to the observer program. There would be no additional effects outside those analyzed in previous NEPA documents.

Summary of the effects of Alternatives 3-5 on fish stocks. Alternatives 3-5 propose restructuring of the funding and observer deployment mechanism, and potentially extending coverage to various fleets that do not have current coverage requirements. These include vessels under 60' LOA, halibut vessels, and additional GOA-based shoreside processors. To the extent that the proposed changes to the Observer Program will provide managers with better estimates of target and bycatch harvest rates, increased flexibility in deploying observers, and harvest rates will remain within TAC levels, impacts to the target species stock, species, or species group are predicted to be insignificant for all target fish stocks evaluated. The proposed alternatives appear to meet the following significance criteria : (1) they would not be expected to jeopardize the capacity of the stock to produce maximum sustainable yield on a continuing basis; (2) they would not alter the genetic sub-population structure such that it jeopardizes the ability of the stock to sustain itself at or above the MSST; (3) they would not alter harvest levels such that it jeopardizes the ability of the stock to sustain itself at or above the MSST; (4) they would not alter harvest levels or distribution of harvest such that prey availability would jeopardize the ability of the stock to sustain itself above the MSST; (5) they would not disturb habitat at a level that would alter spawning or rearing success such that it would jeopardize the ability of the stock to maintain itself above the MSST.

3.3.4 Effects on prohibited species

Prohibited species in the groundfish fisheries include: Pacific salmon (Chinook, Coho, sockeye, chum, and pink), steelhead trout, Pacific halibut, Pacific herring, king crab, and tanner crab. The most recent review of the status of crab stocks may be found in the 2004 Crab SAFE (NMFS, 2004) and for the other species in Section 3.5 of the Steller Sea Lion Protection Measures SEIS (NMFS, 2001). The effects of the groundfish fisheries in the BSAI and GOA on prohibited species are primarily managed by conservation measures developed and recommended by the Council over the history of the FMPs for the BSAI and GOA and implemented by Federal regulation. These measures can be found at 50 CFR part 679.21 and include PSC limitations on a year round and seasonal basis, year round and seasonal area closures, gear restrictions, and an incentive plan to reduce the incidental catch of prohibited species by individual fishing vessels. These management measures are discussed in Section 3.5 of the SSL SEIS (NMFS, 2001).

Pacific salmon are managed by the State of Alaska on a sustained yield principal. Pre-determined escapement goals for each salmon stock are monitored on an in-season basis to insure long term sustainable yields. When escapement levels are low, commercial fishing activities are curtailed. If escapement levels exceed goals, commercial fishing activities are enhanced by longer open seasons. In instances where minimum escapement goals are not met, sport and subsistence fishing activities may also be curtailed. The criteria used to determine the significance of effects under each alternative on salmon

stocks was whether or not salmon escapement needs would reasonably expected to be met. If the alternative was reasonably not expected to jeopardize the capacity of the salmon stocks to produce long term sustainable yields it was deemed insignificant. If the alternative was reasonably expected to jeopardize the capacity of the salmon stocks to produce long term sustainable yields it was deemed significantly adverse. Where insufficient information exists to make such conclusions the alternative's effects are unknown.

The IPHC is responsible for the conservation of the Pacific halibut resource. The IPHC uses a policy of harvest management based on constant exploitation rates. The constant exploitation rate is applied annually to the estimated exploitable biomass to determine a constant exploitation yield (CEY). The CEY is adjusted for removals that occur outside the directed hook-and-line harvest (incidental catch in the groundfish fisheries, wastage in halibut fisheries, sport harvest, and personal use) to determine the directed hook-and-line quota. Incidental catch of halibut in the groundfish fisheries results in a decline in the standing stock biomass, a lowering of the reproductive potential of the stock, and reduced short and long term yields to the directed hook-and-line fisheries. To compensate the halibut stock for these removals over the short term, halibut mortality in the groundfish fisheries is deducted on a pound for pound basis each year from the directed hook-and-line quota. Halibut incidentally taken in the groundfish fisheries are of smaller average size than those taken in the directed fishery and results in further impacts on the long term reproductive potential of the halibut stock. This impact, on average, is estimated to reduce the reproductive potential of the halibut stock by 1.7 pounds for each 1 pound of halibut mortality in the groundfish fisheries. These impacts are discussed by Sullivan *et. al.*(1994). The criteria used to determine the significance of effects under each alternative on the halibut stock is whether incidental catch of halibut in the groundfish fisheries would be reasonably expected to lower the total CEY of the halibut stock below the long term estimated yield of 80 million pounds.

The alternative was rated insignificant if it was not reasonably expected to decrease the total CEY of the halibut stock below the long term estimated yield of 80 million pounds. If the alternative was reasonably expected to lower the total CEY of the halibut stock below the long term estimated yield of 80 million pounds, it was rated significantly adverse. Where insufficient information exists to make such conclusions, the alternative's effects are rated unknown.

Pacific herring are managed by the State of Alaska on a sustained yield principal. Pacific herring are surveyed each year and the Guideline Harvest Levels (GHLs) are based on an exploitation rate of 20% of the projected spawning biomass. These GHLs may be adjusted inseason based on additional survey information to insure long term sustainable yields. The Alaska Department of Fish and Game (ADF&G) has established minimum spawning biomass thresholds for herring stocks which must be met before a commercial fishery may occur. The criteria used to determine the significance of effects on herring stocks under each alternative was whether minimum spawning biomass threshold levels would reasonably expected to be met. If the alternative was reasonably not expected to jeopardize the capacity of the herring stocks to reach minimum spawning biomass threshold levels, it was deemed insignificant. If the alternative was reasonably expected to jeopardize the capacity of the herring stocks to reach minimum spawning biomass threshold levels, it was deemed significantly adverse. Where insufficient information exists to make such conclusions, the alternative's effects are unknown.

Alaska king crab and Tanner crab stocks in the BSAI are protected by area trawl closures and PSC limitations. MSSTs have been established for these crab species stocks to help prevent overfishing. The criteria used to determine the significance of effects under each alternative on crab stocks was whether MSST levels would be reasonably expected to occur. If the alternative was reasonably not expected to jeopardize the capacity of the crab stocks to maintain MSST levels, it was deemed insignificant. If the alternative was reasonably expected to jeopardize the capacity of the crab stocks to reach maintain MSST

levels, it was deemed significantly negative. Where insufficient information exists to make such conclusions, the alternative's effects are unknown.

The annual halibut PSC limits in the directed fisheries of the GOA and the annual and seasonal apportionments of all PSC limits to gear types and targets in the BSAI and GOA are of critical importance in both minimizing the incidental catch of prohibited species and maximizing the optimum yield from the groundfish resources. National Standard 9 directs that when a regional council prepares an FMP they shall, to the extent practicable, minimize bycatch and to the extent bycatch cannot be avoided, minimize the mortality of such bycatch. Since the enactment of the MSA in 1976, the Council has recommended and NMFS has implemented over 30 FMP amendments designed to help minimize the incidental catch and mortality of prohibited species. Levels of incidental catch of prohibited species in each fishery in 2003 were used to estimate the effects TAC levels set for each fishery on incidental catch levels of prohibited species under each alternative. It was assumed for each fishery that an increase or decrease in TAC would result in a proportional increase or decrease in incidental catch. Increases were not assumed to exceed PSC limitations where applicable. Table 3-2 summarizes the criteria used to estimate the significance of effects on prohibited species.

Table 3-2 Summary of the criteria used to estimate the significance of effects of the alternatives on prohibited species

Intensity of Effect	*Significant Adverse*	*Significant Beneficial*	*Insignificant*	*Unknown*
Fishing Mortality	Reasonably expected to jeopardize the capacity of the stock to maintain reference point population levels*	NA	Reasonably not expected to jeopardize the capacity of the stock to maintain reference point population levels	Insufficient information available

* population reference points: Pacific salmon - minimum escapement goals; Pacific halibut - estimated long term CEY level; Pacific herring - minimum spawning biomass threshold; crab - minimum stock size threshold. NA = not applicable.

Summary of the effects of Alternative 1 on prohibited species. Alternative 1 is the no action alternative under which the Observer Program would expire at the end of 2007. This alternative could have potentially significant adverse effects on prohibited species if independent monitoring by observers ceased as many fisheries would be able to proceed largely unmonitored. NMFS would lose critical tools necessary to properly manage the groundfish fisheries off Alaska for both inseason management and stock assessment purposes.

Summary of the effects of Alternative 2 (preferred alternative) on prohibited species. Monitoring levels under Alternative 2 (rollover of the existing program) are considered the baseline with respect to the other alternatives. Under Alternative 2, there would be no practical changes to the Observer Program, and there would be no additional effects beyond those analyzed in previous NEPA documents.

Summary of the effects of Alternatives 3-5 on prohibited species. Alternatives 3-5 propose restructuring the observer deployment and funding mechanism of the current observer program and extending the ability to deploy observers to various fleets that do not currently have coverage requirements (vessels under 60', and halibut vessels). In general, harvest information collected by observers, together with information from other sources, is used by NMFS' in-season managers to assess PSC harvest. Where harvest information is not timely or accurate, fisheries are occasionally closed after PSC levels have been reached, resulting in overharvest of PSC species. The more observer information available to managers

on a near real-time basis, the more closely the closures will approximate the intended PSC levels set by the Council.

To the extent that changes to the deployment of observers will provide managers with better estimates of incidental and directed take of prohibited species, more flexibility in deploying observers, and harvest rates will remain below PSC limits, effects on mortality levels of each prohibited species group are expected to be insignificant. They are not reasonably expected to jeopardize the capacity of the stock to maintain reference point population levels.

3.3.5 Effects on marine mammals

Under the Marine Mammal Protection Act, commercial fisheries are classified according to current and historical data on the level of interaction each fishery has with marine mammals. Fisheries that interact with a strategic stock at a level of take which has a potentially significant impact on that stock are placed in Category I. Fisheries that interact with a strategic stock and whose level of take has an insignificant impact on that stock, or interacts with a non-strategic stock at a level of take which has a significant impact on that stock, are placed in Category II. A fishery that interacts only with non-strategic stocks and whose level of take has an insignificant impact on the stocks is placed in Category III.

Species listed under the Endangered Species Act (ESA) that may be present in the relevant management areas are listed in Table 3-5 in Section 3.3.7. Marine mammals not listed under the ESA that may be present in the BSAI and GOA management area include cetaceans, [minke whale (*Balaenoptera acutorostrata*), killer whale (*Orcinus orca*), Dall's porpoise *(Phocoenoides dalli*), harbor porpoise (*Phocoena phocoena*), Pacific white-sided dolphin (*Lagenorhynchus obliquidens*), and the beaked whales (e.g., *Berardius bairdii* and *Mesoplodon spp*.)] as well as pinnipeds [Pacific harbor seal (*Phoca vitulina*), northern fur seal (*Callorhinus ursinus*), Pacific walrus (*Odobenus rosmarus*), spotted seal (*Phoca largha*), bearded seal (*Erignathus barbatus*), ringed seal (*Phoca hispida*) and ribbon seal (*Phoca fasciata*)], and the sea otter (*Enhydra lutris*)].

Take of the above listed marine mammals in trawl fisheries has been monitored through the Observer Program. Steller sea lion, harbor seal, northern elephant seal, and Dall's porpoise were taken incidentally in the GOA groundfish trawl fisheries according to records dating back to 1990 (Hill et al 1997). Steller sea lion, northern fur seal, harbor seal, spotted seal, bearded seal, ribbon seal, ringed seal, northern elephant seal, Dall's porpoise, harbor porpoise, Pacific white-sided dolphin, killer whale, sea otter, and walrus were taken incidentally in the BSAI groundfish trawl fisheries according to records dating back to 1990 (Hill et al 1997.)

For ESA-listed marine mammals, Steller sea lions are the only species listed that were determined to potentially be adversely affected by the groundfish fisheries in the Biological Opinion (BiOp) prepared on the FMPs (NMFS 2000). Steller sea lion protection measures are implemented as part of the harvest specifications so no adverse effects on the ESA listed mammals are expected beyond those previously analyzed. Informal ESA consultation for the interim and final specifications was completed on November 26, 2002.

Marine mammals were considered in groups that include: Steller sea lions, ESA listed great whales, other cetaceans, northern fur seals, harbor seals, other pinnipeds, and sea otters. Direct and indirect interactions between marine mammals and groundfish harvest occur due to overlap in the size and species of groundfish harvested in the fisheries that are also important marine mammal prey, and due to temporal and spatial overlap in marine mammal foraging and commercial fishing activities.

Impacts of proposed harvest levels are analyzed by addressing four core questions modified from Lowry (1982):

1. Does the proposed action result in increases in direct interactions with marine mammals (incidental take and entanglement in marine debris)?

2. Does the proposed action remove prey species at levels that could compromise foraging success of marine mammals (harvest of prey species)?

3. Does the proposed action result in temporal or spatial concentration of fishing effort in areas used for foraging by marine mammals (spatial and temporal concentration of removals with some likelihood of localized depletion)?

4. Does the proposed action modify marine mammal foraging behavior to the extent that population level impacts could occur (disturbance)?

The reference point for determining significant impacts to marine mammals is predicting whether the proposed harvest levels will impact the current population trajectory of any marine mammal species. Criteria for determining significance and significance ratings for each question are summarized below.

Direct Effects - Incidental Take/Entanglement in Marine Debris. Annual levels of incidental mortality and serious injury are estimated by comparing the ratio of observed incidental take of dead animals to observed groundfish catch (stratified by area and gear type). Incidental bycatch frequencies also reflect locations where fishing effort is highest. In the Aleutian Islands and GOA, incidental takes are often within Steller sea lion critical habitat. In the Bering Sea, takes are farther off shore and along the continental shelf. Otherwise there seems to be no apparent "hot spot" of incidental catch disproportionate with fishing effort. Changes to the Observer Program design and funding mechanism are not anticipated to have significant effects on the annual levels of incidental mortality of marine mammals.

Indirect Effects - Spatial and Temporal Concentration of Fishery. Spatial and temporal concentration effects by these fisheries have recently been analyzed and modified to comply with ESA considerations for Steller sea lions. The criteria for insignificant effect determination is based on the assumption of the Steller sea lion protection measures analysis and section 7 biological opinion that the fishery, as modified by SSL protection measures, mitigates the impacts. That determination applies to all marine mammal species in these management areas.

Indirect Effects - Disturbance Effects. Vessel traffic, gear moving through the water column, or underwater sound production may all represent perturbations, which could affect marine mammal foraging behavior. Foraging could potentially be affected not only by interactions between vessel and species, but also by changes in fish schooling behavior, distributions, or densities in response to harvesting activities. In other words, disturbance to the prey base may be as relevant a consideration as disturbance to the predator itself. For the purposes of this analysis, it is recognized that some level of prey disturbance may occur as a result of fishing.

There has been a recent change in ESA status of the northern sea otter. The southwest Alaska Distinct Population Segment (DPS or 'stock') of northern sea otter has been proposed by the U.S. Fish and Wildlife Service (USFWS) for listing under the ESA. The USFWS has observed a steady decline in abundance of this stock. The reasons for the decline are unknown, but population studies suggest that adult mortality appears to be a major source. The USFWS published a proposed rule on February 11, 2004 (69 FR 6600) to list this sea otter stock as threatened under the ESA. The agency published the final rule to list the stock as threatened on August 9, 2005 (70 FR 46366). The listing took effect thirty days

later on September 8. The USFWS signed a recovery outline, which provides a framework for the recovery planning process, on October 4, 2005. Alaska groundfish fisheries currently are not known to adversely interact with or impact this sea otter stock through either spatial or temporal overlap with sea otter distribution or through the harvest of fish or shellfish species that are important to the sea otter diet.[30] Table 3-3 outlines the criteria used to estimate significance of effects on marine mammals in the GOA and BSAI.

Table 3-3 Criteria used to estimate the significance of effects on marine mammals in the GOA and BSAI

Intensity of Effect	*Significant Adverse*	*Significant Beneficial*	*Insignificant*	*Unknown*
Incidental take/ entanglement in marine debris	Take rate increases by ≥25%	NA	Level of take below that which would have an effect on population trajectories	Insufficient information available on take rates
Spatial/temporal concentration of fishery	More temporal and spatial concentration in key areas	Much less temporal and spatial concentration of fishery in key areas	Spatial concentration of fishery as modified by SSL protection measures	Insufficient information as to what constitutes a key area
Disturbance	More disturbance	NA	Similar level of disturbance as that which was occurring in 2001	Insufficient information as to what constitutes disturbance

NA = not applicable

Summary of the effects of Alternative 1 on marine mammals. Alternative 1 is the no action alternative under which the Observer Program would expire at the end of 2007. This alternative could have potentially significant adverse effects on marine mammals if independent monitoring by observers ceased as many fisheries would be able to proceed largely unmonitored. NMFS would lose critical tools necessary to properly manage the groundfish fisheries off Alaska.

Summary of the effects of Alternative 2 (preferred alternative) on marine mammals. Monitoring levels under Alternative 2 (rollover of the existing program) are considered to represent the baseline with respect to the other alternatives. Under Alternative 2, there would be no changes to the current funding and deployment mechanism of the existing observer program until the Council took further action. This alternative would propose no additional effects outside those analyzed in previous NEPA documents.

Summary of the effects of Alternatives 3-5 on marine mammals. Under Alternatives 3-5, managers of marine mammal resources will have better information on direct and indirect interactions with groundfish fisheries and increased flexibility to meet management objectives. The effects of these alternatives on marine mammals and their habitat are considered insignificant. These alternatives are not expected to alter current rates of interaction beyond those already evaluated in the Final PSEIS (NMFS, 2004). Significant incentives for compliance with marine mammal protection management measures would remain in place. Spatial and temporal concentration effects by these fisheries, vessel traffic, gear moving through the water column, or underwater sound production which could affect marine mammal foraging behavior, will not be affected by any of the restructuring alternatives.

[30]One sea otter was reportedly taken in a trawl in 1997 in the BSAI, but no takes have been reported in the Alaska groundfish fisheries since then, according to the latest sea otter stock assessment (Angliss and Lodge, 2003).

3.3.6 Effects on seabirds

Given the sparse level of information, it is not likely that the fishery effects on most individual bird species are discernable. For reasons explained in the PSEIS, the following species or species groups are considered: northern fulmar, short-tailed albatross, spectacled eider, Steller's eiders, albatrosses and shearwaters, piscivorus seabird species, and all other seabird species not already listed. The fishery effects that may impact seabirds are direct effects of incidental take (in gear and vessel strikes), and indirect effects on prey (forage fish) abundance and availability, benthic habitat, and processing waste and offal. ESA consultation between NMFS and the USFWS is ongoing for the short-tailed albatross, spectacled eider, and Steller's eider.

Direct Effects - Incidental take. The effects of incidental take of seabirds (from fishing gear and vessel strikes) are described in Section 3.7.1 of the PSEIS. Birds are taken incidentally in hook-and-line, trawl, and pot gear, although the vast majority occurs in the hook-and-line fisheries and is comprised primarily of the following species or species groups: fulmars, gulls, shearwaters, and albatrosses. Therefore, this analysis focuses primarily on the hook-and-line fisheries and those species.

As noted in Section 4.1.3.3 of the PSEIS, several factors are likely to affect the risk of incidental catch of seabirds. It is reasonable to assume that risk goes up or down, partly as a consequence of fishing effort (measured as total number of hooks) each year. But, if seabird avoidance measures used to prevent birds from accessing baited hooks are effective, then effort levels would probably be a less critical factor in the probability of a bird getting hooked. Seabird bycatch avoidance measures for each alternative (including the preferred alternative) in Section 4.10.6.6 of the PSEIS.

Indirect Effects - Prey (forage fish) abundance and availability. A description of the effects of prey abundance and availability on seabirds is in Section 3.7.1 of the PSEIS. Detailed conclusions or predictions cannot be made. However, the present understanding is fisheries management measures affecting abundance and availability of forage fish or other prey species could affect seabird populations.

Indirect Effects - Benthic habitat. The indirect fishery effect on benthic habitat as utilized by seabirds are described in Section 4.3.3.1 of the Final PSEIS. The seabird species most likely to be impacted by any indirect gear effects on the benthos would be diving sea ducks such as eiders and scooters as well as cormorants and guillemots. Bottom trawl gear has the greatest potential to indirectly affect seabirds via their habitat. Thus, the remainder of this analysis will be limited to the impacts of bottom trawl gear on foraging habitat.

Indirect Effects - Processing waste and offal. The volume of offal and processing wastes probably changes approximately in proportion to the total catch in the fishery. Whereas some bird populations may benefit from the food supply provided by offal and processing waste, the material also acts as an attractant that may lead to increased incidental take of some seabird species. This impact would need to be considered in the balance of the beneficial and detrimental impacts of the disposal actions.

Criteria used to determine significance of effects on seabirds. Significance of impacts is determined by considering the context in which the action will occur and the intensity of the action. When complete information is not available to reach a strong conclusion regarding impacts, the rating of 'unknown' is used. Table 3-4 outlines the qualitative significance criteria or thresholds that are used for determining if an effect has the potential to create a significant impact on seabirds.

Table 3-4 Criteria used to estimate significance of effect on seabirds in the BSAI and GOA

Intensity of Effects	*Significant Adverse*	*Significant Beneficial*	*Insignificant*	*Unknown*
Incidental take	Take number and/or rate increases substantially and impacts at the population or colony level	Take number and/or rate decreases substantially and impacts at the population or colony level	Take number and/or rate is the same	Take number and/or rate is not known
Prey (forage fish) availability	Prey availability is substantially reduced and causes impacts at the population or colony level	Prey availability is substantially increased and causes impacts at the population or colony level	Prey availability is the same	Changes to prey availability are not known
Benthic habitat	Impact to benthic habitat is substantially increased and impacts at the population level or within critical habitat	Impact to benthic habitat is substantially decreased and impacts at the population level or within critical habitat	Impact to benthic habitat is the same	Impact to benthic habitat is not known
Processing waste and offal	Availability of processing wastes is substantially decreased and impacts at the population or colony level	Availability of processing wastes is substantially increased and impacts at the population or colony level	Availability of processing wastes is the same	Changes in availability of processing wastes is not known

Summary of the effects of Alternative 1 on seabirds. Alternative 1 is the no action alternative under which the Observer Program would expire at the end of 2007. This alternative could have potentially significant adverse effects on seabirds if independent monitoring by observers ceased as many fisheries would be able to proceed largely unmonitored. NMFS would lose critical tools necessary to properly manage the groundfish fisheries off Alaska.

Summary of the effects of Alternative 2 (preferred alternative) on seabirds. Monitoring levels under Alternative 2 (rollover of the existing program) are considered to represent the baseline with respect to the other alternatives. Under Alternative 2, there would be no changes to the current funding and deployment mechanism of the existing observer program until the Council took further action. This alternative would propose no additional effects outside those analyzed in previous NEPA documents.

Summary of the effects of Alternatives 3 - 5 on seabirds. Alternatives 3 - 5 are anticipated to result in better observer data related to direct and indirect interactions with groundfish fisheries and increased flexibility to meet management objectives. The effects of these alternatives on seabirds are considered insignificant. The changes to the Observer Program under Alternatives 3 - 5 are not expected to affect current rates of interaction. Changes in the indirect effects of fisheries on prey (forage fish) abundance and availability, benthic habitat as utilized by seabirds, and processing of waste and offal, all of which could affect seabirds, are not expected by these alternatives.

3.3.7 Effects on endangered or threatened species

The Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq*; ESA), provides for the conservation of endangered and threatened species of fish, wildlife, and plants. The program is administered jointly by NMFS for most marine mammal species, marine and anadromous fish species, and marine plant species and by the USFWS for bird species, and terrestrial and freshwater wildlife and plant species. In addition to listing species under the ESA, the critical habitat of a newly listed species must be designated concurrent with its listing to the "maximum extent prudent and determinable" [16 U.S.C. § 1533(b)(1)(A)]. The ESA defines critical habitat as those specific areas that are essential to the conservation of a listed species and that may be in need of special consideration. Federal agencies are prohibited from undertaking actions that destroy or adversely modify designated critical habitat.

Federal agencies have an affirmative mandate to conserve listed species (Rohlf 1989), thus Federal actions, activities, or authorizations (hereafter referred to as Federal action) must be in compliance with the provisions of the ESA. Section 7 of the Act provides a mechanism for consultation by the Federal action agency with the appropriate expert agency (NMFS or USFWS). Informal consultations, resulting in letters of concurrence, are conducted for Federal actions that have no adverse affects on the listed species. Formal consultations, resulting in biological opinions, are conducted for Federal actions that may have an adverse affect on the listed species. Through the biological opinion, a determination is made as to whether the proposed action poses "jeopardy" or "no jeopardy" of extinction to the listed species.

If the determination is that the action proposed will cause jeopardy, reasonable and prudent alternatives may be suggested which, if implemented, would modify the action to no longer pose the jeopardy of extinction to the listed species. These reasonable and prudent alternatives must be incorporated into the Federal action if it is to proceed. A biological opinion with the conclusion of no jeopardy will contain an incidental take statement if the likelihood exists of any take[31] occurring during promulgations of the action. The incidental take statement is appended to a biological opinion and provides for the amount of take that is expected to occur from normal promulgation of the action. An incidental take statement is not the equivalent of a permit to take. Further, if incidental take is expected, then reasonable and prudent measures are specified that are necessary or appropriate to minimize the impact of the take (50 CFR 402.14(i)). A biological opinion with the conclusion of no jeopardy may contain a series of conservation recommendations intended to further reduce the negative impacts to the listed species. These management measures are advisory to the action agency (50 CFR 402.14(j)).

Though all Federal fishery actions have been through Section 7 consultations, it is periodically necessary to re-initiate Section 7 consultations. NMFS typically views any subsequent action (such as consideration of a new fishery management plan amendment or a new regulatory action) as a point to determine whether a formal re-initiation is necessary. The regulations state: "Re-initiation of formal consultation is required and shall be requested by the Federal agency or by the Service, where discretionary Federal involvement or control over the action has been retained or is authorized by law and: (a) if the amount or extent of taking specified in the incidental take statement is exceeded; (b) if new information reveals effects of the action that may affect listed species or critical habitat in a manner or to an extent not previously considered; (c) if the identified action is subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in the biological opinion; or (d) if a new species is listed or critical habitat designated that may be affected by the identified action." (50 CFR 402.16).

[31]The term "take" under the ESA means "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or attempt to engage in any such conduct" [16 U.S.C. § 1538(a)(1)(B)].

Note that NMFS has recently started an ESA Section 7 reconsultation on the groundfish FMPs. NMFS has convened a consultation team comprised of representatives from the NMFS Protected Resources and Sustainable Fisheries Divisions, NOAA General Counsel, the Alaska Fisheries Science Center, and Council staff. The consultation team has initiated the preparation of a consultation package which will consist of a series of documents, one of which is a Biological Assessment that summarizes information on the proposed action (the groundfish FMPs). The Biological Assessment is nearing completion and when finished will be submitted by Sustainable Fisheries to Protected Resources; when accepted by Protected Resources, the consultation will formally begin. The Council's Steller Sea Lion Mitigation Committee has convened to participate in the consultation process.

ESA Listed Marine Mammals. A Biological Opinion was written on Alternative 4 (the preferred alternative) for the Steller Sea Lion Protection Measures SEIS (NMFS 2001). The 2001 Biological Opinion concluded that the suite of management measures associated with Alternative 4 would not likely jeopardize the continued existence of the western or eastern populations of Steller sea lions, nor would it adversely modify the designated critical habitat of either population. It is important to point out that the 2001 Biological Opinion does not consider whether Alternative 4 helps the Steller sea lion population size recover to a specified level so that the species could be de-listed, but rather asks if Alternative 4 will jeopardize the Steller sea lion's chances of survival or recovery in the wild. While the Biological Opinion concludes that Alternative 4 does not jeopardize the continued survival and recovery of Steller sea lions, it identifies four reasonable and prudent measures as necessary and appropriate to minimize impacts of the fisheries to Steller sea lions under Alternative 4. The measures are: (1) monitoring the take of Steller sea lions incidental to the BSAI and GOA groundfish fisheries; (2) monitoring all groundfish landings; (3) monitoring the location of all groundfish catch to record whether the catch was taken inside critical habitat; and (4) monitoring vessels fishing for groundfish inside areas closed to pollock, Pacific cod, and Atka mackerel to see if they are illegally fishing for those species. Informal consultation for all ESA listed marine mammal species was completed November 26, 2002.

ESA Listed Pacific Salmon. Although none of the Alaskan salmon stocks are listed as threatened or endangered under ESA, there are 27 stocks of Pacific salmon and steelhead that are so listed in the Pacific Northwest. Of the 27 listed stocks, the following evolutionary significant units (ESUs) may range into Alaska waters: Snake river fall Chinook, Snake River spring/summer Chinook, Puget Sound Chinook, Upper Columbia river spring Chinook, Upper Willamette River Chinook, Lower Columbia river Chinook, Sacramento River winter Chinook, Central Valley spring Chinook, California Coast Chinook, Central Valley fall and late fall Chinook, Southern Oregon/Northern California Coho, Oregon Coast Coho (proposed threatened), Lower Columbia River Coho, Puget Sound/Strait of Georgia Coho (Species of Concern), Upper Columbia river steelhead, Middle Columbia river steelhead, Lower Columbia river steelhead, and Snake river Basin steelhead. Of these ESUs, only the Lower Columbia Chinook and Upper Willamette Chinook ESUs are likely to be taken in Alaskan groundfish fisheries, based on coded-wire tag studies.

NOAA Fisheries initiated formal consultations for these ESUs in 1999. A Biological Opinion was issued on December 22, 1999, and contained a determination that the Alaska groundfish fisheries are not likely to jeopardize the continued existence of Pacific salmon and steelhead. No critical habitat has been designated for these species within Alaska waters. The opinion was accompanied by an Incidental Take Statement (ITS) that states that the catch of listed fish will be limited specifically by the measures proposed to limit the total bycatch of Chinook salmon. Bycatch should be minimized to the extent possible and in any case should not exceed 55,000 Chinook salmon per year in the BSAI groundfish fisheries or 40,000 Chinook salmon per year in the GOA fisheries. In 2000, a Biological Opinion was issued on the BSAI Groundfish FMP (NMFS 2000), which reaffirmed the finding of the previous opinion, and also the accompanying Incidental Take Statement.

An ESA consultation for Chinook salmon in the BSAI was initiated in December 2004 following the 2004 fishery having exceeded the ITS as described above. The consultation upheld the ITS and concluded that the fishery is not likely to further impact ESA-listed salmon at present, however the consultation noted the continued need to monitor Chinook bycatch in the BSAI trawl fisheries as well as actions taken by the Council and industry to minimize this bycatch. The ITS again was exceeded in 2005, and the Alaska Region is continuing the ESA consultation with the Northwest Region.

NOAA Fisheries has conducted a coded wire tag study on surrogate stocks of ESA-listed salmon for the Upper Willamette and Lower Columbia rivers nearly annually since 1984. For all the years data have been collected, no more than 1 tagged fish in a year was taken in the BSAI groundfish fisheries. No other ESU surrogate CWT fish stocks have been recovered in the BSAI groundfish fisheries.

ESA Listed Seabirds. The Biological Opinion on the effects of the groundfish fisheries on listed seabird species expired December 31, 2000. Two Section 7 consultations on the effects of the Alaska groundfish fisheries on the endangered short-tailed albatross and the threatened Steller's eider were reinitiated in 2000. The first was an FMP-level consultation on the effects of the BSAI and GOA FMPs in their entirety on the listed species (and any designated critical habitat) under the jurisdiction of the USFWS. The second consultation was on the effects of Council's TAC setting process for the BSAI and GOA groundfish fisheries. The biological opinions concluded that implementation of the groundfish fishery FMPs and the actions related to the TAC-setting process are not likely to jeopardize the continued existence of these species.

An ITS accompanies the TAC-setting BiOp. This ITS authorizes the incidental take of four short-tailed albatross over a two year period in the Alaskan hook-and-line groundfish fisheries, and an incidental take of two short-tailed albatross in the Alaskan trawl groundfish fisheries over the time period the biological opinion remains in effect (about five years). These incidental take limits are in addition to the take limit established in 1998 for the Pacific halibut hook-and-line fishery off Alaska, two short-tailed albatrosses in a two year period. If the level of anticipated take is exceeded in any of these fisheries, NMFS must immediately reinitiate a consultation with the USFWS to review the need for possible modification to the fishery. The ITS also includes specific Reasonable and Prudent Measures NMFS must take to minimize the potential for take of these species.

Effects of Alternatives 1-5: Section 7 consultations have been done for all of the ESA listed species occurring in the BSAI and GOA groundfish management areas. The purpose of the proposed Federal action is the extension and/or improvement of an observer monitoring program, which would contribute to the assessment of potential interactions between the Federal groundfish fisheries and ESA-listed species. Thus, the proposed action is not anticipated to have any significant negative effect on ESA listed species, with the exception of the long-term effects under Alternative 1.

Table 3-5 Species listed as endangered or threatened under the ESA and occurring in the GOA and/or BSAI groundfish management areas

Common Name	*Scientific Name*	*ESA Status*
North Pacific Right Whale	*Eubalaena japonicus*	Endangered
Bowhead Whale [1]	*Balaena mysticetus*	Endangered
Sei Whale	*Balaenoptera borealis*	Endangered
Blue Whale	*Balaenoptera musculus*	Endangered
Fin Whale	*Balaenoptera physalus*	Endangered
Humpback Whale	*Megaptera novaeangliae*	Endangered
Sperm Whale	*Physeter macrocephalus*	Endangered
Snake River Sockeye Salmon	*Onchorynchus nerka*	Endangered
Short-tailed Albatross	*Phoebastria albatrus*	Endangered
Steller Sea Lion	*Eumetopias jubatus*	Endangered and Threatened [2]
Snake River Fall Chinook Salmon	*Onchorynchus tshawytscha*	Threatened
Snake River Spring/Summer Chinook Salmon	*Onchorynchus tshawytscha*	Threatened
Puget Sound Chinook Salmon	*Onchorynchus tshawytscha*	Threatened
Lower Columbia River Chinook Salmon	*Onchorynchus tshawytscha*	Threatened
Upper Willamette River Chinook Salmon	*Onchorynchus tshawytscha*	Threatened
Upper Columbia River Spring Chinook Salmon	*Onchorynchus tshawytscha*	Endangered
Upper Columbia River Steelhead	*Onchorynchus mykiss*	Endangered
Snake River Basin Steelhead	*Onchorynchus mykiss*	Threatened
Lower Columbia River Steelhead	*Onchorynchus mykiss*	Threatened
Upper Willamette River Steelhead	*Onchorynchus mykiss*	Threatened
Middle Columbia River Steelhead	*Onchorynchus mykiss*	Threatened
Spectacled Eider	*Somateria fishcheri*	Threatened
Steller's Eider	*Polysticta stelleri*	Threatened
Northern Sea Otter	*Enhydra lutris*	Candidate

[1] The bowhead whale is present in the Bering Sea area only.

[2] Steller sea lion are listed as endangered west of Cape Suckling and threatened east of Cape Suckling.

3.3.8 Ecosystem considerations

Section 4.9 of the 2006 TAC Specifications EA analyzed the effects of these fisheries on the ecosystem. Different ecosystem indicators were separated into categories. The indicators provide information about three key ecosystem attributes: (1) predator/prey relationships, (2) energy flow and removal, and (3)

species, functional, and genetic diversity. The impact on each attribute is evaluated with respect to two or more indicators.

Ecosystem characteristics of the BSAI and GOA have been described annually since 1995 in the "Ecosystem Considerations" section of the annual "Stock Assessment and Fishery Evaluation" (SAFE) reports. An overview of North Pacific ecosystem issues was provided in Section 3.10 of the PSEIS, and an evaluation of the impacts of the preferred FMP alternative bookends was provided in Section 4.9.10 of the PSEIS.

The 2006 TAC Specifications EA predicted that fisheries within the BSAI and GOA management areas would have an insignificant impact on the three key ecosystem attributes described above. This determination was used as a reference point, and the alternatives under this action were compared against this reference point.

Alternative 1 would eliminate the regulatory structure of the observer program. Alternative 1 could have potentially significant adverse ecosystem effects if independent monitoring by observers ceased, as many fisheries would be able to proceed without independent monitoring by NMFS. NMFS would lose critical tools necessary to properly manage the groundfish fisheries off Alaska, both for inseason management and stock assessment purposes. Alternative 2 (Council preferred alternative) would result in no change to the observer program and no effects to the ecosystem would occur as a result of this alternative. Alternatives 3 - 5 are intended to improve the utility of observer data by improving the ability of NMFS to deploy observers when and where necessary to fill data gaps. Thus, Alternatives 2 - 5 are not expected to have any significant negative impacts on the ecosystem.

3.3.9 Habitat impacts

The marine waters and benthic substrates in the management areas comprise the habitat of all marine species. Additionally the adjacent marine waters outside the EEZ, adjacent State waters inside the EEZ, shoreline, freshwater inflows, and atmosphere above the waters, constitutes habitat for prey species, other life stages, and species that move in and out of, or interact with, the fisheries' target species, marine mammals, seabirds, and the ESA listed species.

This analysis focuses on the effects of monitoring fishing at the 2006 TAC levels on benthic habitat important to commercial fish species and their prey. The analysis also provides the information necessary for an EFH assessment, which is required by the MSA for any action that may adversely affect EFH. Issues of concern with respect to EFH effects are the potential for damage or removal of fragile biota that are used by fish as habitat, the potential reduction of habitat complexity, which depends on the structural components of the living and nonliving substrate, and potential reduction in benthic diversity from long-lasting changes to the species mix.

The following criteria are used to rate each alternative as to whether it may have significant effects:

1. Removal of or damage to Habitat Areas of Particular Concern (HAPC) biota by fishing gear
2. Modification of nonliving substrate, and/or damage to small epifauna and infauna by fishing gear
3. Change in benthic biodiversity

The reference point against which the criteria are applied is the current size and quality of marine benthic habitat and other EFH.

Table 3-6 Habitat indicators of ecosystem function used in significance determination on benthic habitat

Indicator	*Observation*	*Interpretation*
Groundfish bottom trawling effort in GOA	Bottom trawl time in 2001 was similar to 1998-2000 and lower than 1990-1997	Less trawling on bottom
Groundfish bottom trawling effort in EBS	Bottom trawl time in 2001 was similar to 1999 and lower than 1991-1997	Less trawling on bottom relative to 1991-1997
Groundfish bottom trawling effort in AI	About the same in 2001 compared with 2000, generally decreasing trend since 1990	Less trawling on bottom
Area closed to trawling BSAI and GOA	More closed in 2000-2002 compared with 1999	Less trawling on bottom in certain areas though may concentrate trawling in other areas.
HAPC biota bycatch in GOA groundfish fisheries	Estimated at 32t for GOA in 2000	About constant in GOA 1997-2000
HAPC biota bycatch in EBS/AI groundfish fisheries	Estimated at 560t for BSAI in 2000	Lower in BSAI during 2000 relative to 1997-1998

Impacts on EFH. Conducting fisheries in the GOA and BSAI has the potential for benthic disturbances that could result in regional adverse effects on EFH, regardless of the monitoring system employed. Mitigation measures to minimize effects on EFH have been undertaken through ongoing fishery management measures whose principal goals are to protect and rebuild groundfish stocks, but that have also resulted in a benefit to habitat for all managed species. Alternative 1 could have some level of adverse impact on EFH if independent monitoring by observers ceased after 2007. None of the proposed action alternatives (Alternatives 2 – 5) are anticipated to have additional impacts on EFH beyond those identified in previous analyses discussed above, as none of the alternatives affect how, where, and when fishing is conducted. None of the proposed alternatives are expected to have a significant effect on EFH.

3.4 Context and intensity as required by NEPA

To determine the significance of impacts of the actions analyzed in this EA, NMFS is required by NEPA and 50 CFR 1508.27 to consider both the *context* and the *intensity* of the action.

Context: The setting of the proposed action is the groundfish fisheries of the BSAI and GOA. Any effects of the action are limited to these areas. The effects on society within these areas are on individuals directly and indirectly participating in the groundfish fisheries and on those who use the ocean resources. The purpose of the action is to restructure the Observer Program to improve data quality and utility, as well as mitigate disproportionate costs of observer services across various fleets. As a result of collecting more statistically reliable observer data, management of the groundfish fisheries may be improved and this action may have impacts on society as a whole or regionally.

Intensity: Listings of considerations to determine intensity of the impacts are in 50 CFR § 1508.27(b) and in the NOAA Administrative Order 216-6, Section 6. Each consideration is addressed below in the order it appears in the regulations.

1. **Adverse or beneficial impact determinations for marine resources, including sustainability of target and nontarget species, damage to ocean or coastal habitat or EFH, effects on biodiversity and ecosystems, and marine mammals.** Please see Section 3.1 and 3.2 for a discussion of these issues. Under Alternative 1, NMFS would no longer have critical tools necessary to manage the groundfish fisheries off Alaska, both for inseason management and stock assessment purposes. Extension of the existing program under Alternative 2 is not expected to have an impact on marine resources compared to the status quo. The alternatives to restructure the funding and deployment mechanism of the Observer Program (Alternatives 3 – 5) are not anticipated to have adverse impacts on marine resources. To the extent that more statistically reliable data is collected because NMFS is able to direct observer coverage based on science, management, and data needs, Alternatives 3 – 5 could result in a beneficial impact on marine resources. The level of impact of the alternatives will likely vary based on the scope of the fisheries that are included in each alternative.

2. No **public health and safety impacts** were identified in any of the proposed alternatives.

3. This action takes place in the **geographic area** of the GOA and the BSAI. No effects on the unique characteristics of this area are anticipated to occur with any action alternative considered because fishing practices and locations are not affected.

4. The effect of this action on the human environment is not **controversial** in the sense that it will not adversely affect the biology of the groundfish or halibut stocks or the TACs established for these species. However, the action may be socially and economically controversial to the current and future participants in the fishery in that differences of opinion exist between components of the fishing industry, observer providers, and observers on issues of cost equity, perceived inequities of observer deployment, potential biases, funding, observer wages, and the need for action.

5. There are no known **risks to the human environment** associated with eliminating the current pay-as-you-go funding mechanism to a system based on fees and/or Federal subsidies, in which NMFS controls observer deployment (Alternatives 3 – 5). Alternative 1 would eliminate the regulatory structure of the observer program, and thus could pose risks to the human environment if independent monitoring by observers ceased, as many fisheries would be able to proceed without independent monitoring by NMFS. Under Alternative 1, NMFS would lose critical tools necessary to properly manage the groundfish fisheries off Alaska, both for inseason management and stock assessment purposes. Alternative 2 would result in no change to the observer program until the Council took further action. Alternatives 3 - 5 are intended to improve the utility of observer data by improving the ability of NMFS to deploy observers when and where necessary to fill data gaps. Because the action alternatives under consideration address the observer program design and do not change the catch quotas or fishing practices, it is anticipated that there will be no risk to the human environment under Alternatives 2 - 5.

6. This action may represent a decision in principle about **future consideration** of changes to the Observer Program and guide future actions with regard to modifying the Observer Program for other fleets, if any, that are not included in the preferred alternative. Section 1.1 discusses the original rationale for limiting the proposed action primarily to the GOA fisheries, as initially, the feasibility of a significant restructuring to the current Observer Program design appeared more likely if it was limited to the GOA. The intent was to focus the action on those fisheries in which the coverage, data, and disproportionate cost concerns were most acute. However, the problems the action is trying to address are likely present in the BSAI fisheries to a lesser extent, and an alternative was included which includes all Federal groundfish and halibut fisheries in both the

GOA and the BSAI. If the final preferred alternative does not include some portion or all of the BSAI fisheries, this action may still guide actions to include those fisheries in the future, upon review of its implementation.

While the preferred alternative would not achieve some of the objectives outlined in the problem statement, it may be the only viable alternative until cost questions are resolved and NMFS obtains statutory authority to collect differential fees to pay for observer coverage. Alternative 2 would continue to provide the North Pacific groundfish fisheries with the benefits of the observer program. The benefits of observer coverage to the government, industry, and public are substantial.

7. The proposed action is not expected to have any significant individual or **cumulative effect** on the environment. Alternative 2 would result in no change to the existing observer program until the Council took further action. The restructuring alternatives under consideration (Alternative 3 - 5) propose to modify the Observer Program design by changing the funding mechanism to a fee-based and/or Federally subsidized system, as well as allowing NMFS direct control over the deployment of observers. To the extent that Federal managers would receive better data under the proposed program by which to manage the groundfish and halibut fisheries and other marine resources, there may be a beneficial impact to the marine environment under these alternatives.

8. There are no known effects on districts, sites, highways, structures, or objects listed or eligible for listing in the **National Register of Historic Places**, nor would the action cause loss or destruction of any significant scientific, cultural, or historical resources. This consideration is not applicable to this action.

9. NEPA requires NMFS to determine the degree to which an action may affect **threatened or endangered species** under the ESA. There are no known interactions between implementation of the action alternatives under consideration and any ESA-listed species in addition to those previously identified in other analyses. This consideration is discussed in Section 3.3.7.

10. This action poses no known violation of Federal, State, or local laws or requirements for the **protection of the environment.** However, statutory authority is likely necessary to implement any of the restructuring alternatives (Alternatives 3 – 5). This issue is discussed in Section 2.8.

11. **No introduction or spread of non-indigenous species** is expected as a result of this action. This consideration is not applicable to this action.

3.5 Cumulative effects

Cumulative effects are those combined effects on the quality of the human environment that result from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions, regardless of what Federal or non-Federal agency or person undertakes such other actions (40 CFR 1508.7, 1508.25(a), and 1508.25(c)). Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time. The concept behind cumulative effects analysis is to capture the total effect of many actions over time that would be missed by evaluating each action individually.

To avoid the piecemeal assessment of environmental impacts, cumulative effects were included in the 1978 Council on Environmental Quality (CEQ) regulations, which led to the development of the CEQs cumulative effects handbook (CEQ 1997) and Federal agency guidelines based on that handbook (e.g.,

EPA 1999). Although predictions of direct effects of individual proposed actions tend to be more certain, cumulative effects may have important consequences over the long-term. The goal of identifying potential cumulative effects is to provide for informed decisions that consider the total effects (direct, indirect, and cumulative) of alternative management actions.

No significant cumulative effects on the groundfish and halibut resource as a result of this action are expected, as none of the alternatives change the groundfish or halibut quotas or general manner, timing, or location in which the fisheries operate. The restructuring alternatives under consideration (Alternatives 3 – 5) were proposed to mitigate the problems with the existing interim Observer Program related to the quality of observer data and disproportionate costs realized by the fishing industry. The existing program is driven by inflexible coverage levels established in regulation, which make it difficult for NMFS to be responsive to current and future management needs in individual fisheries. Because NMFS cannot effectively deploy observers when and where they are needed to respond to science and management needs or data gaps, there are potential sources of bias that could jeopardize the statistical reliability of observer data. Alternatives 3 – 5 would potentially improve the Observer Program to the extent that better, more reliable data would be collected by which to manage the identified fisheries. The current program also results in disproportionately high observer costs for some sectors of the fisheries. Under Alternatives 3 – 5, the program would be funded by a combination of a broad-based fee (based on ex-vessel value and/or daily observer costs) and potential Federal subsidies.

However, while the disadvantages of the current program have been identified, the extension of the existing program (Alternative 2, Council preferred alternative) is likely the only feasible alternative in the short-term, due to 1) significant cost uncertainties associated with the potential application of the FLSA and SCA, and 2) the lack of statutory authority to implement a fee-based system as proposed in Alternatives 3 - 5. Thus, while Alternative 2 does not meet all of the objectives outlined in the problem statement, it is the only alternative that appears to meet the short-term need of maintaining an observer program for the Federal groundfish fisheries of the North Pacific beyond 2007.

3.6 Benefits of observer coverage

The benefits of observer coverage to the government, industry, and public are substantial. Through observer coverage, NMFS obtains accurate information upon which to base management and conservation decisions, which may increase economic opportunities for industry. The public receives unbiased information about the exploitation of a public resource that would otherwise occur outside the pubic view. **The benefits of observer coverage outlined in the following sections are relevant to Alternatives 2 – 5.** Alternative 1 (no action) is the only alternative proposed that could potentially result in the expiration of the current observer program, and loss of these benefits, if no subsequent action was taken to extend the program beyond 2007.

3.6.1 General benefits from observer coverage

Commercial fisheries have been managed for over 100 years through landings and catch reports obtained in fishing ports and submitted by fishermen. The question then arises as to whether it is necessary to deploy observers at sea. However, at-sea observers provide data that are unobtainable by sampling or reported landings. The following sections describe these data, which are primarily used to support inseason monitoring and management of the fisheries, stock assessments, and research.

Estimates of takes of protected species

Marine mammals and sea birds are protected by a variety of international treaties and domestic statutes aimed at minimizing potential negative interaction with fisheries and other activities. Chief among these statutes are the Marine Mammal Protection Act and the Endangered Species Act. Observers are necessary to collect data on marine mammal and seabird interactions with the fishing fleet, to insure that protected species are not adversely impacted by fishing activity.

Prohibited species catch

Many groundfish fisheries in the North Pacific are limited by bycatch of crab, salmon, halibut, and herring as much if not more so than by the harvest of target species. Because prohibited species are required to be discarded at sea in most fisheries (as opposed to AFA CVs that are required to deliver or, if there is an observer on that vessel, allow the observer so sample all PSC), observers are currently the only reliable method through which prohibited species catch data can be collected in most North Pacific fisheries. Without observers, the catch of prohibited species could not be managed in an effective manner.

Estimates of discards of fishery resources

Catches brought aboard fishing vessels are mainly sorted for marketable species and sizes, with the unwanted or non-marketable portion of the catch discarded at sea. Discards occur because prohibited or low-valued species are caught along with the marketable species sought. In some fisheries, large catches of undersized commercial species also occur and result in substantial quantities of the species catch being discarded. Accurate stock assessments require that all harvests due to the fishery - either as landings or discards - be measured. Measuring the effects of fishing activities on the ecosystem also requires information on catches of all species, even if they are totally discarded. Observer sampling provides the most reliable method of acquiring data on the quantity and species composition of discards, as well as information on the specific reasons why species are discarded (i.e., too small, no market for the species, fish damaged, etc). With these data, it is possible to more completely understand the effects of fishing and to estimate the potential biological and economic benefits of changes in conservation and management measures (i.e., minimum legal sizes, trip quotas for individual species, retention requirements, etc.).

Biological sampling of the catch

Observers aboard fishing vessels also collect spatially explicit biological samples of the catch. Size and age samples and other observations taken at sea (e.g., sexual maturity) are often not obtainable by sampling dockside landings or if so, samples may be biased towards legal sizes or valuable species. Size and age samples of discards permit the estimation of discard size age composition, which often differs considerably from that in the landings. .

Because observer sampling occurs throughout the year, the program affords an opportunity to collect samples of fish gonads and other parts to study seasonal cycles of sexual maturity and growth that may be difficult during annual research survey cruises that occur at only one time during the year.

Design and monitoring of conservation gear

Reduction in discards of groundfish and catch of protected species has been attempted using a variety of methods, including the development of more selective fishing gear. The development and deployment of such gear requires testing (i.e., to ensure the gear can be safely and efficiently used) and validation (i.e., to

ensure this gear is having the intended effect). Observer data can provide important information about the use and effectiveness of fishing gear.

Monitoring of experimental fisheries

Experimental fisheries have frequently occurred in the North Pacific when industry has sought to test fishing gear under controlled conditions, or develop fisheries that conflict with current regulations. Observer data gathered during experimental fisheries provides important information on the effectiveness of the gear or fishing strategy being tested.

Gear performance and characteristics

To support research, scientific observers that are deployed aboard commercial vessels can be requested to make detailed measurements of various attributes of the fishing gear, including how it is rigged and deployed. These measurements can be important for two reasons. First, by noting variables of mesh size, number of hooks, gangion length, duration of trawl tow, etc., in relation to the catch attributes (quantity, species composition, size distribution of catch) it is possible to conduct statistical analyses of the factors that result in high (or low) rates of discard, species mix, changes in catch rate, etc. Second, gear performance observations, when collected over time, can be used to better calibrate catch-per-unit-effort abundance measures. For example, if the average size of nets, duration of tow, ground-cable length, etc., increases over time, these may have a direct effect on catch per day fished by the fleet (even for same sized vessels). Given sufficient information, these factors can be included in research assessment analyses to provide a more complete and accurate picture of fishing intensity and effectiveness.

Communication with fishermen

Observer programs provide a channel for two-way communication between fishermen and fishery scientists and managers. The program is an important link between NMFS and fishermen. Ideas, complaints, and information communicated between observers, captain, and crew is valuable for all parties.

3.6.2 Benefits from improved observer data under Alternatives 3 - 5

If the alternatives to restructure the deployment and funding mechanism of the current observer program were viable, additional benefits would be expected from Alternatives 3 – 5. Under the proposed restructuring alternatives, the greatest increase in improvement in the collection of observer data would be expected in the Tier 3 and Tier 4 fisheries that currently have 30% observer coverage and no observer coverage, respectively.

Reducing sources of bias

Under the existing observer program, vessels required to carry observers 30% of their fishing days choose when and where to carry observers provided that they meet the minimum coverage requirement of 30% of fishing days per quarter and at least one observed fishing trip for each target fishery. Many vessel owners prefer to carry their required coverage later rather than earlier during each quarter for several reasons. First, when vessels carry observers later in the quarter or fishing season they may have a better idea of how many coverage days will actually be needed to meet the regulatory requirement than vessels carrying observers during the start of a fishing season. Therefore, vessels carrying observers later in each quarter or season are better able to avoid exceeding their coverage requirement. Second, some vessel owners may prefer to carry observers later in each quarter so that they can first earn revenues required to pay for observer coverage and other expenses.

The preference for coverage later during each quarter is tempered to some extent by observer providers who have observers under contract and must keep their observers deployed in order to minimize unpaid downtime. Consequently, there is a constant give and take between observer providers and vessel owners in the existing 30% coverage fleet over when and where to carry observer coverage. However, these sorts of coverage decisions are generally driven by the observer provider's desire for efficiency and the vessel owner's desire for predictability, with little or no regard given to scientific or management objectives. This is because NMFS does not decide when and where observers are deployed in the 30% coverage fleet.

Because catch and bycatch rates fluctuate by season and area, biased decisions about when and where to deploy observers in the 30% coverage fleet has the potential to greatly affect the quality and reliability of observer data.

Under Alternatives 3 - 5, NMFS would take a lead role in deciding when and where to deploy observers and how much coverage is necessary for each Tier 3 fishery. NMFS would also have the ability to better 'match' observers' skills and experience to the deployment of observers in all fisheries, whether they are less than 100% covered (Tiers 3 and 4) or at least 100% covered (Tiers 1 and 2). For the first time, fishery managers will be able to address these and other known sources of bias, to the benefit of the resulting data.

Recent examinations of the North Pacific Groundfish Observer Program have focused on operational aspects of the program and have dealt with such issues as sampling protocols, reducing bias, estimate expansion, and the statistical properties of estimates (e.g. Jensen et al. 2000, Dorn et al. 1997, Volstad et al. 1997, Pennington 1996, and Pennington and Volstad 1994). These and other studies suggest that sources of bias can be reduced and the statistical reliability of observer data improved through improvements in the manner in which observers are deployed. In particular, changing the current system in which 30% coverage vessels can chose when and where to take observers to a new system in which NMFS is responsible for distributing observers among vessels in a more statistically sound manner.

Targeting coverage to address data needs

A second benefit to a restructured program for Tier 3 and 4 fisheries is the ability of NMFS to target coverage to address specific data needs. Under Alternatives 3 - 5, fishery managers would have the flexibility to adjust coverage as necessary to fill data gaps and address specific conservation or management issues for the fisheries included in the preferred alternative. For example, if questions arise about catch or bycatch by vessels operating in a specific area or time of year, NMFS would have the ability to direct observers onto specific vessels or into specific areas to address those questions. In addition, because NMFS would have greater control over the deployment of specific observers, observers could be directed and trained to engage in more specialized data collection or research than is possible today. These types of specialized projects could include more intensive data collection on specific species or species groups, data collection on gear performance and gear interactions, and more intensive data collection on interactions with marine mammals and other protected species.

Chapter 4 Regulatory Impact Review: Economic Effects of the Alternatives

4.1 Introduction

This Regulatory Impact Review (RIR) evaluates an FMP and regulatory amendment to either continue the existing observer program, or establish a new system for procuring and deploying observers in the groundfish and halibut fisheries operating in the North Pacific. Five alternatives are analyzed. **Alternative 1**, the no action alternative, would allow the program to sunset at its current expiration date of December 31, 2007. **Alternative 2**, the status quo rollover alternative, would extend the existing program unchanged. **Alternatives 3 through 5** would replace the current pay-as-you-go system, in which vessels contract directly with observer providers to meet observer coverage requirements specified in regulation, for those segments of the fleet that are covered under the alternative.

The new program, in which NMFS would contract directly for observer coverage and would be responsible for determining when and where observers are deployed, would be supported by broad-based user fees assessed on vessels and processors in the new program and/or Federal subsidy funds. Vessels in the new program would no longer be responsible for obtaining their own observer coverage, but would have their observers provided by NMFS. **Alternative 3** would include the GOA groundfish fisheries and all (GOA and BSAI) halibut fisheries in the new program; all other fisheries would continue in the existing pay-as-you-go program. **Alternative 4** would include all groundfish and halibut fisheries with less than 100% coverage requirements in the BSAI and GOA in the new program; all other fisheries would continue in the existing pay-as-you-go program. Finally, **Alternative 5** would replace the current pay-as-you-go system in entirety, for all vessels and processors operating in the North Pacific. Groundfish and halibut fisheries with less than 100% coverage requirements in the BSAI and/or GOA would be in the new program; all other fisheries with 100% or more coverage requirements would pay a daily observer fee.

4.1.1 What is a regulatory impact review?

The requirements for all regulatory actions specified in E.O. 12866 are summarized in the following statement from the order:

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

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

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

4.1.2 Statutory authority

NMFS manages the Federal groundfish fisheries of the GOA and BSAI under separate FMPs. The North Pacific Fishery Management Council prepared the FMPs pursuant to the MSA. Regulations implementing the FMPs appear at 50 CFR part 679. General regulations that pertain to Federal fisheries appear at subpart H of 50 CFR part 600. While groundfish are managed under the FMPs and the authority of the MSA, halibut is managed by the IPHC as provided by the Convention Between the U.S. and Canada for the Preservation of the Halibut Fishery of the Northern Pacific Ocean and the Bering Sea (Convention) and the North Pacific Halibut Act of 1982 (Halibut Act). However, the Halibut Act and the Convention have been interpreted to assign responsibility to the Council on halibut management issues. Thus, the Council is authorized to amend the Federal regulations governing both halibut and groundfish in the U.S. EEZ under existing law. The proposed action is, therefore, both a Gulf groundfish FMP amendment, and potentially a BSAI groundfish FMP amendment, depending on the scope of the program in the preferred alternative. In addition, this action would represent a regulatory amendment for groundfish, and potentially halibut, depending on the alternative selected.

4.1.3 Purpose of the action and Council preferred alternative

During the development of the 2002 regulations to extend the interim Observer Program, the Council and NMFS recognized that a more comprehensive restructuring of the program was necessary to solve many of the problems inherent in the current "pay-as-you-go" approach. At its October 2002 meeting, the Council tasked its OAC to develop a problem statement and alternatives for restructuring the Observer Program, to be presented at the February Council meeting. In order to facilitate further progress by the committee, NMFS developed a discussion paper which included a general discussion of issues and alternatives related to the restructuring of the Observer Program. The OAC met January 23-24, 2003, with the primary purpose of reviewing this paper, drafting a problem statement, and providing recommendations to the Council. At its February 2003 meeting, the Council reviewed the discussion paper and the draft OAC report and approved the following problem statement for restructuring the Observer Program:

> *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. 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.

At its February 2006 meeting, the Council approved an addition to the problem statement as follows:

While the Council continues to recognize the issues in the problem statement above, existing obstacles prevent a comprehensive analysis of potential costs. Immediate Council action on a restructured program is not possible until information is forthcoming that includes clarification of cost issues that arise from Fair Labor Standards Act and Service Contract Act requirements and statutory authority for a comprehensive cost recovery program. During the interim period, the Council must take action to prevent the expiration of the existing program on December 31, 2007.

Also at its February 2006 meeting, the Council identified Alternative 2 as its preliminary preferred alternative, recognizing that while Alternative 2 does not meet the majority of the issues identified in the problem statement, it is the only alternative that likely meets the short-term need of preventing the expiration of the observer program until several external issues are resolved. These issues are summarized below. Additional detail is provided in Section 4.4.3.

One significant ongoing issue affecting the development of the alternatives and analysis is related to observer compensation and the applicability of the overtime pay provisions in the Fair Labor Standards Act (FLSA). In February 2005, the NMFS Alaska Region and the North Pacific Groundfish Observer Program (Observer Program) sent a memo to NMFS Headquarters requesting concurrence with its determination that North Pacific groundfish observers should be classified as professionals, under the FLSA.[32] Such a determination would make observers exempt from the overtime pay provisions of the FLSA.

On November 29, 2005, NMFS Headquarters indicated in two letters that the agency has examined the issue and continues to believe that observers should be classified as technicians under the FLSA, and therefore should be entitled to overtime pay.[33] First, NMFS Headquarters responded to industry inquiries about whether observers could be classified as professionals, exempt under the FLSA. NMFS responded that observers should be classified as technicians, and should therefore be eligible for overtime pay:

The classification of observers under our authority (i.e., federal employees, federally contracted employees, and third-party contractors using federal funds) as "professionals" would require a determination that they meet all FLSA criteria for a learned professional exemption found at 29 CFR 541.300 – 541.301. We have recently re-examined the duties, qualification, and compensation of our observers, and compared this information to the governing requirements of FLSA and the Service Contract Act 41

[32] Memo from James Balsiger and Douglas DeMaster to William Hogarth, February 4, 2005. See Appendix II.

[33] Letter from William Hogarth to Arni Thomson, November 29, 2005, and letter from William Hogarth to Alfred Robinson, Wage and Hour Division, Department of Labor, November 29, 2005.

USC 351, et seq.). We concluded that observers under our authority do not meet the requirements for a professional exemption under the FLSA.[34]

Second, NMFS Headquarters drafted a letter to the Wage and Hour Division of the Department of Labor (DOL) requesting an interpretation of the applicability of the Service Contract Act (SCA) and FLSA to fisheries observers employed by NMFS and by observer service providers that are either under contract with or given permits by NMFS.[35] The letter requested guidance on computing hours worked and the associated rules governing compensation of fishery observers, and the applicability of the SCA and FLSA on land, in the territorial sea of the EEZ, and in international waters. The letter detailed many circumstances unique to working at sea on fishing boats, in which the applicable laws are less than clear. At the February 2006 Council meeting, NMFS indicated to the Council that it did not anticipate receiving a response from the DOL in time for final action on a restructuring alternative in early 2006, and indicated that responses to the most difficult questions may not be definitive in any event. Without additional information on the applicability of the FLSA provisions, the classification of working versus non-working hours, and verification of hours worked, NMFS and analysts are unable to provide a comprehensive assessment of observer costs under a new service delivery model.

In addition, NOAA General Counsel, Alaska Region (GCAK) has made a preliminary determination that the Research Plan authority provided in the MSA (Section 313) to assess a fee for observer coverage cannot 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 action alternatives except Alternative 2 (extension of the current program) are likely to require statutory authorization; unless it is determined that different fees can be assessed against different fisheries or sectors.

Given the events above, NMFS submitted a letter to the Council (January 22, 2006) prior to the February Council meeting, recommending that the Council extend the existing program until a number of critical cost-related issues and statutory barriers are resolved.[36] NMFS recommended that the Council adopt Alternative 2 to maintain the current program based on the fact that: 1) Congressional authority necessary to implement any of the fee-based alternatives has not yet occurred, 2) it is not possible to estimate costs associated with the fee-based alternatives until overtime pay issues are clarified by the Department of Labor or in statute; and 3) the current observer program expires on December 31, 2007.

The OAC met in late January 2006, to provide recommendations on the analysis and review the NMFS letter described above. The committee ultimately recommended that the Council select Alternative 2 as its preferred alternative for this analysis, given the need for continuing the program in the short-term, and the lack of control over the Congressional authority and cost issues. The Council reviewed both NMFS' recommendation and the OAC report in February 2006.

At its February 2006 meeting, the Council discussed the NMFS and OAC recommendations. Because it appeared reasonable to delay any action on restructuring the Observer Program (Alternatives 3 – 5) until the issues described above were resolved, the Council also discussed whether to initiate subsequent action and analytical documents that would include only current Alternatives 1 and 2.

For various reasons related to Congressional inaction in granting authority to the Council to undertake such a restructuring of the observer program and cost uncertainties described in Chapter 1, NMFS, the

[34] Letter from William, T. Hogarth, Ph.D to Arni Thomson, November 29, 2005 (See Appendix II).

[35] Letter from William T. Hogarth, Ph.D. to Alfred B. Robinson, Jr. Deputy Administrator, Wage and Hour Division, U.S. Department of Labor, November 29, 2005 (See Appendix II).

[36] Letter from Robert D. Mecum, Acting Administrator, Alaska Region to Stephanie Madsen, Chair, North Pacific Fishery Management Council, January 22, 2006. See Appendix II.

Council, and the OAC agreed that adoption of a recommendation for a restructured program, as proposed in Alternatives 3 – 5, is not prudent at this time. Some members of the Council were concerned that, with a scale down amendment package (i.e., limited only to Alternatives 1 and 2), a decision to adopt Alternative 2 could be taken out of context, and not reflect their efforts and reasoning for adopting an extension to the current program, despite it's problems and shortcomings. Based on these discussions and with concurrence from NMFS, the Council chose not to initiate a subsequent analysis to extend the Observer Program beyond 2007, but rather include analysis of restructuring alternatives at this time. By including these alternatives, the public could better understand how the Council arrived at its decision. **While the restructuring alternatives remain in this document primarily to provide context and supplemental information relative to the Council's action, the public should only consider, and provide comment on, the "no action" alternative (Alternative 1), and the "status quo" alternative (Alternative 2) to extend the Observer Program beyond 2007, as this represents the decision point at this time.**

In February 2006, the Council approved a motion describing its intent to initiate a new amendment with restructuring alternatives 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. The Council also requested that subsequent amendments proposed to restructure the Observer Program should include an option for the Federal funding of observers. Thus, the analysis of the restructuring alternatives to-date is intended as a starting point in a future amendment and is included here to provide context in the decision making process.

Until these issues are resolved, Council action on a restructured program is not possible. Labor issues may only be resolved by the Department of Labor, or potentially in court as a result of litigation. This process is not controlled by the Council or NMFS, and it is not possible to predict a timeframe for resolution of this issue. For this reason, as well as lack of statutory authority to collect fees at the time of Council action, the Council determined it would not be prudent to include a new sunset date as part of Alternative 2. **In June 2006, the Council selected Alternative 2 as its final preferred alternative, noting that the February 2006 motion outlines the intent to consider a new amendment to change the observer program service delivery model at such time that conditions allow (see previous paragraph above).**

On January 12, 2007, the President signed the Magnuson-Stevens Fishery Conservation and Management Reauthorization Act (Pub. Law No. 109-479). The reauthorized Magnuson-Stevens Act includes language that would appear to allow the Council to adopt a fee collection program as considered in the analysis. However, the exact nature of the fee program authorized by the Magnuson-Stevens Act must be determined, the Council must consider a new amendment to restructure the current Observer Program, and NMFS must undergo rulemaking to implement a new Observer Program. Therefore, implementing a fee collection and restructured Observer Program prior to the December 31, 2007, expiration date would be difficult. Additionally, the observer cost issues described above remain unresolved. For these reasons, Alternative 2 remains the only viable alternative in the short term.

The Council's preferred alternative (Alternative 2) would result in an extension of the existing Observer Program, by simply removing the expiration date in Federal regulations. This alternative would not achieve some of the objectives outlined in the problem statement, such as improvements to data quality and the reduction of disproportionate observer costs born by many small vessel operators. It also would not advance the data quality objectives contained in the preferred alternative of the Programmatic Supplemental Environmental Impact Statement prepared to evaluate the Alaska groundfish fisheries (NMFS 2004). However, while Alternative 2 would not achieve many of the objectives of the

problem statement, it is likely the only alternative that would achieve the primary objective of the problem statement to authorize and maintain a groundfish Observer Program beyond the current expiration date of December 31, 2007.

4.1.4 Description of the alternatives

The alternatives and program elements analyzed in this document are described in detail in Chapter 2. **Alternative 1** is the no action alternative. **Alternative 2** (preferred alternative) would extend the existing program by removing the sunset date in current regulations, and is the *de facto* status quo alternative. The three restructuring alternatives (**Alternatives 3 – 5**) are distinguished primarily in terms of scope (i.e. which vessels and processors would be included in the program) and by the structure of the fee collection program. The five alternatives considered are as follows:

Alternative 1. **No action alternative.** Under this alternative, the current interim "pay-as-you-go" groundfish observer program would continue through 2007. Regulations authorizing the current program expire at the end of 2007, meaning the observer program would cease to exist after December 31, 2007.

Alternative 2. **Rollover alternative: Extension of the existing program.** (**preferred alternative**). Under this alternative, the 2007 sunset date for the existing program would be removed and the program would be extended indefinitely, with no changes to the overall service delivery model

Alternative 3. **GOA-based restructuring alternative. Restructured program for GOA groundfish and all halibut fisheries; rollover existing program in BSAI.** A new ex-vessel value fee program would be established to fund observer coverage for GOA groundfish vessels, GOA-based processors, and halibut vessels operating throughout Alaska. Regulations that divide the fleet into 0%, 30%, and 100% coverage categories would no longer apply to vessels and processors in the GOA. Fishermen and processors would no longer be responsible for obtaining their own observer coverage. NMFS would determine when and where to deploy observers based on data collection and monitoring needs, and would contract directly for observers, using fee proceeds and/or direct Federal funding. Vessels in the GOA would be required to carry an observer when one is provided by NMFS. Under this alternative, the current "pay-as-you-go" system would be unchanged for all groundfish vessels and processors that operate in the BSAI. Vessels and processors that operate in both management areas would obtain their observer coverage and pay fees through whichever program applies to the management area in which they are operating (i.e., GOA rules while operating in GOA, BSAI rules while operating in the BSAI).

Alternative 4. **Coverage-based restructuring alternative. Restructured program for all fisheries with coverage less than 100% (Tiers 3 and 4).** This alternative differs from Alternative 3 in that the program would be defined by coverage categories, rather than geographic area. All vessels and processors assigned to Tiers 3 and 4 (i.e., that require less than 100% coverage) would participate in the new program throughout Alaska and pay an ex-vessel value based fee. In general, this alternative would apply to all halibut vessels, all groundfish catcher vessels <125' LOA, and all non-AFA shoreside processors. All vessels and processors assigned to Tiers 1 and 2 (100% or greater coverage) would continue to operate under the current "pay-as-you-go" system throughout Alaska.

Alternative 5. Comprehensive restructuring alternative. Restructured program for all groundfish and halibut fisheries off Alaska. This alternative would establish a new fee-based groundfish observer program in which NMFS directly contracts with observer providers for all GOA and BSAI groundfish and halibut vessels. Under this alternative, vessels with 100% or greater coverage requirements would pay a daily observer fee and vessels with coverage requirements less than 100% would pay an ex-vessel value based fee.

The following table provides a detailed summary and comparison of the action alternatives, in order to more clearly delineate among the existing program and the three alternatives proposed that would represent a fundamental change to the current service delivery model. Note that in June 2006, the Council chose Alternative 2 as its final preferred alternative (PA), for various reasons related to cost uncertainty and statutory authority, described in the previous section.

Table 4-1 Comparison of the action alternatives (Alternatives 2 – 5)

Program Elements	*Alternative 2 (PA)*	*Alternative 3*	*Alternative 4*	*Alternative 5*
Program Scope: Which vessels and processors are included? (Note: 'no' under Alt. 3 and 4 means the fleet is not included in the new program, but would continue under the status quo)				
Halibut vessels	no	yes	yes	yes
GOA groundfish CVs < 60'	no	yes	yes	yes
GOA groundfish CVs ≥60'	yes	yes	yes	yes
GOA groundfish processors	yes	yes	yes	yes
GOA trawl & hook-and-line CPs	yes	yes	no	yes
BSAI groundfish vessels <60'	no	no	yes	yes
BSAI CVs <125' and pot vessels	yes	no	yes	yes
BSAI CVs ≥ 125'	yes	no	no	yes
BSAI trawl and hook-and-line CPs	yes	no	no	yes
BSAI groundfish processors (non-AFA)	yes	no	yes	yes
AFA inshore processors	yes	no	no	yes
CDQ vessels	yes	no	Tier 3 and 4 vessels only	yes
Determination of coverage levels				
Coverage levels	0%, 30% and 100% coverage levels established in regulation	Vessels and processors assigned into tiers based on criteria in each fishery. In Tiers 1 and 2, 200% and 100% coverage, respectively, would be mandatory. In Tiers 3 and 4, coverage levels would be determined by NMFS to maximize the utility of observer data and deploy observers in the most effective manner. Vessel operators would not be required to achieve a certain coverage level, but instead, would be required to carry an observer when one is provided by NMFS.		
Initial coverage levels for Tier 3 and 4 fisheries	Established in regulation	To be determined later based on separate, analysis. Individual vessel operators would not be responsible for achieving mandatory minimum coverage levels but would only be required to carry an observer when one is provided and when requested to do so by NMFS. The coverage levels for vessels and processors participating in fisheries with mandatory coverage requirements of 100% or greater would not change (e.g., AFA and CPs fishing CDQ).		
Funding sources				
Type of fee	Vessel or processor contracts directly for coverage	Ex-vessel value fee program for all participants		Tier 1 and Tier 2 fisheries would pay a daily observer fee. Tier 3 and Tier 4 fisheries would pay an ex-vessel value fee
Fee collection	Vessel billed directly by observer provider	Vessel fees would be collected by processor at the time of landing and submitted to NMFS on a quarterly basis		Tier 1 and 2 vessels would be billed directly by NMFS on a quarterly basis.
Fee percentage	N/A	Uniform "baseline" fee for all participants established in regulation		
Actual or standard ex-vessel prices	N/A	NMFS recommends using standard prices. Actual prices may be a viable option for shoreside landings but not CPs.		
Supplemental funding	N/A	Supplemental fees or IFQ cost recovery fees could be used to support increased coverage for fishery-specific rationalization programs		

Program Elements	*Alternative 2 (PA)*	*Alternative 3*	*Alternative 4*	*Alternative 5*
Initial fee percentage	N/A	Low or high endpoint options based on the status quo observer costs and coverage levels		
Process for adjusting fee percentages	N/A	Notice and comment rulemaking		
Start-up funding	none	Federal subsidy appropriations (grant or loan)		
Direct Federal funding	none	Federal subsidies to supplement or replace fee revenues		
Restrictions on the use of fee proceeds	N/A	Option for using fee proceeds to pay for electronic monitoring technologies. Potential application of technological monitoring is subject of Appendix I.		
Technological and equipment requirements				
Electronic fishing logbooks	N/A	Voluntary use of electronic logbooks encouraged by NMFS through financial incentives if available		
Contracting process and inseason deployments				
Inseason deployment	Determined by vessel and observer provider	Determined by NMFS based on inseason or annual coverage priorities.		
Contracting process	Vessel contracts directly with provider for coverage	NMFS contracts with one or more observer providers to obtain coverage for the vessel and processor sectors included in each alternative. Vessels and processors not included under the alternative continue to contract directly with observer providers for coverage.		

4.2 Description of the fishery

The different classes of groundfish fishing and processing operations, as well as the Pacific halibut fishing sectors, and the CDQ Groups that may be affected by the alternatives are described in detail in Section 3.9 (Social and Economic Conditions) of the Final PSEIS (NMFS, 2004). Refer to Section 3.9.2 of the Final PSEIS for extremely detailed fishing and processing sector profiles. In addition to affecting the CDQ and non-CDQ groundfish and halibut fishing industry participants, the alternatives and options considered in this document could affect the current and future observer providers and observers.

Table 4-2 and Table 4-3 show the number of vessels and processors that participated in GOA and BSAI groundfish and halibut fisheries, from 2000-2003, for each vessel class and permit type (groundfish, halibut, or both), respectively. Table 4-4 and Table 4-5 summarize information about the numbers of groundfish and halibut fishing operations affected by the alternatives in the GOA and BSAI, respectively. As noted above, all of the restructuring alternatives would directly affect observer provider companies and observers that operate in fisheries covered by the restructuring alternatives.

Table 4-2 Participation in GOA groundfish and halibut fisheries by vessel/processor class and year, 2000-2003

Sector	Permit Type	Vessel Class	Year				2000-2003 Average
			2000	2001	2002	2003	
CP	Groundfish	Hook-and-line CP <125	13	10	10	8	10
		Hook-and-line CP ≥125	8	8	11	14	10
		Pot CP <125	1	1	2	1	1
		Pot CP ≥125	3	1	2		2
		Trawl CP <125	4	6	4	7	5
		Trawl CP ≥125	14	12	12	14	13
	Halibut	Hook-and-line CP <125	150	128	135	157	143
		Hook-and-line CP ≥125			1	1	1
CV	Groundfish & Halibut	AFA Diversified Trawl	4	3	3	3	3
		AFA Trawl 60-124	1	1	1	1	1
		Fixed Gear <32	37	37	31	38	36
		Fixed Gear 33-59	475	423	380	377	414
		Hook-and-line ≥60	59	56	59	56	58
		Non-AFA Trawl <60	22	22	21	19	21
		Non-AFA Trawl ≥60	14	13	14	14	14
		Pot ≥60	31	24	22	21	25
	Groundfish only	AFA Diversified Trawl	17	19	18	18	18
		AFA Trawl ≥125	2		2	2	2
		AFA Trawl 60-124	8	12	6	7	8
		Fixed Gear <32	63	48	30	43	46
		Fixed Gear 33-59	213	179	161	176	182
		Hook-and-line ≥60	11	7	8	9	9
		Non-AFA Trawl <60	24	23	24	23	24
		Non-AFA Trawl ≥60	20	22	18	17	19
		Pot ≥60	72	23	21	21	34
	Halibut only	Fixed Gear <32	341	299	297	302	310
		Fixed Gear 33-59	489	484	472	439	471
		Hook-and-line ≥60	10	14	10	13	12
		Pot ≥60	1	7	7	7	6
Processors	All	AFA inshore	5	5	5	5	5
		Aleutian Islands	5	5	3	3	4
		Kodiak	15	14	12	10	13
		Southcentral	13	11	11	9	11
		Southeast	10	11	10	9	10
		Floater	8	1	3	2	4
		Mothership		1	1	1	1
		Other Bering Sea		1			0
Total			**2,163**	**1,931**	**1,827**	**1,847**	**1,946**

Source: NMFS Alaska Region BLEND data and ADF&G fish ticket data.
Note: Jig gear is included in fixed gear numbers.

Table 4-3 Participation in BSAI groundfish and halibut fisheries by vessel/processor class and year, 2000-2003

Sector	Permit Type	Vessel Class	Year				2000-2003 Average
			2000	2001	2002	2003	
CP	Groundfish	AFA CP ≥125	15	16	17	17	16
		Hook-and-line CP <125	13	13	10	10	12
		Hook-and-line CP ≥125	27	30	30	29	29
		Pot CP <125		2	2	2	2
		Pot CP ≥125	8	5	3	1	4
		Trawl CP <125	8	7	7	7	7
		Trawl CP ≥125	15	15	15	15	15
	Halibut	Hook-and-line CP <125	5	6	8	8	7
		Hook-and-line CP ≥125		1	1	2	1
CV	Groundfish & Halibut	AFA Diversified Trawl		3	3	3	2
		AFA Trawl 60-124	1	1	1	1	1
		Fixed Gear <32	13	15	9	12	12
		Fixed Gear 33-59	47	58	48	50	51
		Hook-and-line ≥60	33	32	30	28	31
		Non-AFA Trawl <60	4	2	2	5	3
		Non-AFA Trawl ≥60	4	1	3	2	3
		Pot ≥60	14	13	14	14	14
	Groundfish only	AFA Diversified Trawl	23	25	26	26	25
		AFA Trawl ≥125	30	29	28	28	29
		AFA Trawl 60-124	44	45	41	41	43
		Fixed Gear <32	9	9	6	7	8
		Fixed Gear 33-59	9	16	16	13	14
		Hook-and-line ≥60	1		1		1
		Non-AFA Trawl <60		6	8	12	7
		Non-AFA Trawl ≥60	7	4	6	6	6
		Pot ≥60	97	63	45	60	66
	Halibut only	Fixed Gear <32	262	244	243	243	248
		Fixed Gear 33-59	8	11	15	11	11
		Hook-and-line ≥60	4	6	4	6	5
		Pot ≥60	1	3	4	6	4
Processors	All	AFA inshore	6	6	6	6	6
		Aleutian Islands	7	7	7	6	7
		Kodiak	9	8	10	6	8
		Southcentral	3	4	4	4	4
		Southeast	1	2	1	2	2
		Floater	7	3	2	3	4
		Mothership	3	3	3	4	3
		Other Bering Sea	3	2	2	2	2
Total			**741**	**716**	**681**	**698**	**713**

Source: NMFS Alaska Region BLEND data and ADF&G fish ticket data.
Note: Jig gear is included in fixed gear numbers.

Table 4-4 Estimated number of entities in the GOA in 2003 that would be affected by each of the alternatives

Sector	*Permit Type*	*Vessel Class*	*Alt. 1 (no action)*	*Alt. 2 (rollover – preferred alt)*	*Alt. 3 (GOA-based)*	*Alt. 4 (Tiers 3-4)*	*Alt. 5 (comprehensive)*
CP	Groundfish	Hook-and-line CP <125	8	8	8	0	8
		Hook-and-line CP ≥125	14	14	14	0	14
		Pot CP <125	1	1	1	1	1
		Trawl CP <125	7	7	7	0	7
		Trawl CP ≥125	14	14	14	0	14
	Halibut	Hook-and-line CP <125	0	0	157	157	157
		Hook-and-line CP ≥125	0	0	1	1	1
CV	Groundfish & Halibut	AFA Diversified Trawl	3	3	3	3	3
		AFA Trawl 60-124	1	1	1	1	1
		Fixed Gear <32	38	38	38	38	38
		Fixed Gear 33-59	377	377	377	377	377
		Hook-and-line ≥60	56	56	56	56	56
		Non-AFA Trawl <60	19	19	19	19	19
		Non-AFA Trawl ≥60	14	14	14	14	14
		Pot ≥60	21	21	21	21	21
	Groundfish only	AFA Diversified Trawl	18	18	18	18	18
		AFA Trawl ≥125	2	2	2	2	2
		AFA Trawl 60-124	7	7	7	7	7
		Fixed Gear <32	43	43	43	43	43
		Fixed Gear 33-59	176	176	176	176	176
		Hook-and-line ≥60	9	9	9	9	9
		Non-AFA Trawl <60	23	23	23	23	23
		Non-AFA Trawl ≥60	17	17	17	17	17
		Pot ≥60	21	21	21	21	21
	Halibut only	Fixed Gear <32	0	0	302	302	302
		Fixed Gear 33-59	0	0	439	439	439
		Hook-and-line ≥60	0	0	13	13	13
		Pot ≥60	0	0	7	7	7
Processors	All	AFA inshore	5	5	5	5	5
		Aleutian Islands	3	3	3	3	3
		Floater	2	2	2	2	2
		Kodiak	10	10	10	10	10
		Mothership	1	1	1	1	1
		Southcentral	9	9	9	9	9
		Southeast	9	9	9	9	9
GOA Total			**928**	**928**	**1847**	**1804**	**1847**

Source: NMFS Alaska Region BLEND data and ADF&G fish ticket data.
Note: Jig gear is included in fixed gear numbers.

Table 4-5 Estimated number of entities in the BSAI in 2003 that would be affected by each of the alternatives

Sector	Permit Type	Vessel Class	Alt. 1 (no action)	Alt. 2 (rollover – preferred alt)	Alt. 3 (GOA-based)	Alt. 4 (Tiers 3-4)	Alt. 5 (comprehensive)
CP	Groundfish	AFA CP ≥125	17	17	0	0	17
		Hook-and-line CP <125	11	11	0	0	11
		Hook-and-line CP ≥125	29	29	0	0	29
		Pot CP <125	2	2	0	2	2
		Pot CP ≥125	1	1	0	1	1
		Trawl CP <125	7	7	0	0	7
		Trawl CP ≥125	15	15	0	0	15
	Halibut	Hook-and-line CP <125	0	0	0	8	8
		Hook-and-line CP ≥125	0	0	0	2	2
CV	Groundfish & Halibut	AFA Diversified Trawl	3	3	0	3	3
		AFA Trawl 60-124	1	1	0	1	1
		Fixed Gear <32	12	12	0	12	12
		Fixed Gear 33-59	50	50	0	50	50
		Hook-and-line ≥60	28	28	0	28	28
		Non-AFA Trawl <60	5	5	0	5	5
		Non-AFA Trawl ≥60	2	2	0	2	2
		Pot ≥60	14	14	0	14	14
	Groundfish only	AFA Diversified Trawl	26	26	0	26	26
		AFA Trawl ≥125	28	28	0	0	28
		AFA Trawl 60-124	41	41	0	41	41
		Fixed Gear <32	7	7	0	7	7
		Fixed Gear 33-59	13	13	0	13	13
		Non-AFA Trawl <60	12	12	0	12	12
		Non-AFA Trawl ≥60	6	6	0	6	6
		Pot ≥60	60	60	0	60	60
	Halibut only	Fixed Gear <32	0	0	243	243	243
		Fixed Gear 33-59	0	0	11	11	11
		Hook-and-line ≥60	0	0	6	6	6
		Pot ≥60	0	0	6	6	6
Processors	All	AFA inshore	6	6	0	0	6
		Aleutian Islands	6	6	0	6	6
		Floater	3	3	0	1	3
		Kodiak	6	6	0	6	6
		Mothership	4	4	0	1	4
		Other Bering Sea	2	2	0	2	2
		Southcentral	4	4	0	4	4
		Southeast	2	2	0	2	2
Total			**423**	**423**	**266**	**581**	**699**

Source: NMFS Alaska Region BLEND data and ADF&G fish ticket data.
Note: Jig gear is included in fixed gear numbers.

The following sections provide a short summary of each type of vessel and processor listed in Table 4-2 through Table 4-5 that may be affected by the alternatives. These sections also specifically outline which vessels are affected by each of the restructuring alternatives (Alternatives 3 – 5). Whether a vessel is affected by Alternatives 3 – 5 depends on where the vessel fishes and into which coverage tier level it is placed, thus, the statements below regarding whether a sector is affected by an alternative are based on the proposed tier classifications for each sector (see Table 4-6). The issue of tier levels is described in detail in Sections 4.2.6 through 4.2.11. Note that the determination of tier classifications is only relevant to Alternatives 3 – 5.

4.2.1 Catcher processors (CPs)

Catcher processors carry the equipment and personnel they need to process the fish that they themselves catch. In some cases, CPs also process fish harvested and transferred to them at sea by CVs. There are many types of CPs. The largest CPs are the AFA pollock CPs that operate exclusively in the BSAI, because sideboard limitations contained in the AFA prohibit such vessels from fishing for groundfish in the GOA. **AFA CPs would only be affected by Alternative 5.** The remaining types of CPs that may be affected by some or all of the restructuring alternatives are summarized below.

Non-AFA trawl CPs. These vessels are generally limited to headed and gutted (H&G) products or kirimi and operate primarily in the BSAI, although some also fish in the GOA. In general, trawl H&G CPs focus their efforts on flatfish, Pacific cod, and Atka mackerel. Non-AFA trawl CPs are generally smaller than AFA CPs and operate for longer periods than the surimi and fillet CP vessels that focus on pollock. A fishing rotation in this sector might include Atka mackerel in January; rock sole in February; rock sole, Pacific cod, and flatfish in March; rex sole in April; yellowfin sole and turbot in May; yellowfin sole in June; rockfish in July; and yellowfin sole and some Atka mackerel from August to December. The target fisheries of this sector are usually limited by bycatch regulations or market constraints; only rarely is this sector able to catch the entire TAC of the target species available. **Non-AFA trawl CPs that fish in the GOA would be affected by Alternatives 3 and 5. Non-AFA trawl CPs that limit their operations to the BSAI would be affected by Alternative 5.**

Pot CPs. These vessels have been used primarily in the crab fisheries of the North Pacific, but increasingly are participating in the Pacific cod fisheries. Vessels in the pot CP sector predominantly use pot gear to harvest BSAI and GOA groundfish resources. They produce whole or headed and gutted groundfish products, some of which may be frozen in brine, rather than blast frozen. Vessels average about 135' LOA and are equipped with deck cranes for moving pots. Most pot vessel owners use their pot gear for harvesting groundfish. However, some owners change gear and participate in hook-and-line fisheries, and there is some crossover between gear categories. Pot CPs ≥125' are subject to somewhat different observer requirements than other large CPs; all pot vessels ≥60' are only required to have coverage on 30% of their pots pulled for that calendar quarter, as opposed to the 100% of the fishing days coverage required on other vessels over 125'. **All pot CPs would be affected by Alternatives 4 and 5, and those fishing for groundfish in the GOA would also be affected by Alternative 3.**

Hook-and-line (longline) CPs. These vessels, also known as freezer longliners, use hook-and-line gear to harvest groundfish. Most hook-and-line CPs are limited to headed and gutted products, and in general are smaller than trawl H&G CPs. The hook-and-line CP sector evolved because regulations applying to this gear type provided more fishing days than were available to other gear types. Hook-and-line CP vessels are able to produce relatively high-value products that compensate for the relatively low catch rates associated with hook-and-line gear. These vessels average just over 130' LOA. On average from 2000 through 2003, there were 42 vessels operating in this sector in the BSAI. These vessels target Pacific cod, with sablefish and certain species of flatfish (especially Greenland turbot) as important secondary target

species. Many vessels reported harvesting all four groundfish species groups each year from 1991 through 1999. Most harvesting activity has occurred in the BSAI, but a few hook-and-line CP vessels operate in both the BSAI and GOA. **Hook-and-line CPs operating in the GOA would be affected by Alternatives 3 and 5. Hook-and-line CPs operating exclusively in the BSAI would be affected by Alternative 5.**

4.2.2 Motherships

Motherships are defined as vessels that process, but do not harvest, fish. The three motherships currently eligible to participate in the BSAI pollock fishery range in length from 305' to 688' LOA. Motherships contract with a fleet of CVs that deliver raw fish to them. As of 2005, 19 CVs were permitted to make BSAI pollock deliveries to these motherships. Substantial harvesting and processing power exists in this sector, but it is not as great as either the inshore or CP sectors. Motherships are dependent on BSAI pollock for most of their income, though small amounts of income are also derived from the Pacific cod and flatfish fisheries. In 1999, over 99% of the total groundfish delivered to motherships was pollock from the BSAI. About $30 million worth of surimi, $6 million of roe, and $3 million of meal and other products were produced from that fish. These figures exclude any additional income generated from the whiting fishery off the Oregon and Washington coasts in the summer.[37] Only one of the three motherships participated in the GOA during 1999, and GOA participation in previous years was also sporadic. This is likely due to the inshore/offshore and AFA sideboard restrictions, which allocate 100% of the GOA pollock to the inshore processing component**. To the extent that these motherships process groundfish harvested in the GOA, they would be affected by Alternatives 3 and 5. Motherships operating exclusively in the BSAI would be affected by Alternative 5.**

4.2.3 Groundfish catcher vessels (CVs)

Catcher vessels harvest fish, but are not themselves equipped to process it. They deliver their product at sea to a mothership, or on occasion CP, or to an inshore processor (either onshore or floating). There are a wide variety of CVs, distinguished in this section by product and gear type.

AFA trawl CVs. Vessels harvesting BSAI pollock deliver their catch to shoreside processing plants in western Alaska, large floating (mothership) processors, and to the offshore CP fleet. Referred to as CVs, these vessels comprise a relatively homogenous group, most of which are long-time, consistent participants in a variety of BSAI fisheries, including pollock, Pacific cod, and crab, as well as GOA fisheries for pollock and cod. There are 107 eligible trawl vessels in this sector, and they range from under 60' to 193', though most of the vessels fishing BSAI pollock are from 70'-130'. Ninety AFA CVs are equal to or greater than 60 ft, requiring either 30% or 100% observer coverage. The AFA established, through minimum recent landings criteria, the list of trawl CVs eligible to participate in the BSAI pollock fisheries. There is significant, and recently increasing, ownership of this fleet (about a third) by onshore processing plants. This trend may have implications for the design and efficacy of a restructured observer program. **AFA CVs ≥125' would be affected as follows: those that fish in the GOA would be affected by Alternatives 3 and 5; those that fish in the BSAI would be affected by Alternative 5. AFA CVs <125' would be affected as follows: those that fish in the GOA would be affected by Alternatives 3, 4, and 5; those that fish in the BSAI would be affected by Alternatives 4 and 5.**

Non-AFA trawl CVs ≥60' LOA. Includes all CVs greater than or equal to 60' LOA that used trawl gear for the majority of their catch, but are not qualified to fish for pollock under the AFA. They are ineligible to participate in Alaska commercial salmon fisheries with seine gear, because they are longer than 58'. Vessels must have harvested a minimum of 5 mt of groundfish in a year to be considered part of this

[37] In 1996, whiting accounted for about 12% of mothership total revenue.

class. The revenue from five mt of Pacific cod at $0.20 per pound is about $2,200. Non-AFA trawl CVs greater than or equal to 60' also tend to concentrate their efforts on groundfish, obtaining more than 80% of ex-vessel revenue from groundfish harvests. All non-AFA CVs fishing in recent years are <125' LOA, and most concentrate their fishing in the GOA. Only 3 non-AFA trawl CVs over 60' LOA fish for groundfish in the BSAI on a regular basis. **Generally, all non-AFA trawl CVs would be affected by Alternatives 3 - 5. If a non-AFA trawl CV only fished in the BSAI, it would be affected only by Alternatives 4 and 5.**

*Pot CV*s. These vessels rely on pot gear for participation in both crab and groundfish fisheries. All vessels included in this class are qualified to participate in the crab fisheries under the Crab License Limitation Program. Some of these vessels use hook-and-line gear in groundfish fisheries. Vessels in this class are typically equipped with one or two large deck cranes for moving and stacking crab pots, and a steel-framed pot launcher. These vessels have an average length of about 100', an average rating of about 175 gross tons, and an average horsepower rating of about 800. Historically, the pot fishery in Alaska waters produced crab. Several factors, including diminished king and Tanner crab stocks, led crabbers to begin to harvest Pacific cod with pots in the 1990s. The feasibility of fishing BSAI Pacific cod with pots was also greatly enhanced with the implementation of Amendment 24 to the BSAI FMP, which allocated the target fishery between trawl and fixed gear vessels.[38] **All pot CVs that fish in the GOA would be affected by Alternatives 3 - 5. All pot vessels that fish in the BSAI would be affected by Alternatives 4 and 5.**

Hook-and-line CV ≥60'. A large majority of the hook-and-line CVs in this class operate solely with hook-and-line fixed gear, focusing on halibut and relatively high-value groundfish such as sablefish and rockfish. Both fisheries generate high revenue per ton, and these vessels often enter other high-value fisheries, such as the albacore fisheries on the high seas. The reliance of these vessels on groundfish fisheries sets them apart from smaller fixed gear CVs permitted to operate in Alaska salmon fisheries with multiple gear types. Overall, this fleet is quite diverse. Excluding vessels that principally participate in the halibut or salmon fishery, most vessels are between 60' and 80' long with an average length of about 70'. The larger vessels in this class can operate in the Bering Sea during most weather conditions, while smaller vessels can have trouble operating during adverse weather. **All hook-and-line CVs ≥60' LOA that fish in the GOA would be affected by Alternatives 3 - 5. CVs ≥60' that fish in the BSAI would be affected by Alternatives 4 and 5.**

CVs <60' LOA (all gear types). This CV class primarily uses trawl and hook-and-line gear, although a few vessels also use pot and jig gear. This group of vessels is allowed to participate in the State of Alaska commercial seine fisheries for salmon (assuming they are 58' or less LOA). Alaska's limited entry program for salmon fisheries established a 58-foot length limit for seine vessels entering these fisheries after 1976. Many groundfish CVs <60 ft in length were built to be salmon purse seine vessels, while others were designed to function as both trawlers and seiners. Within this class, vessels using trawl gear tend to have larger engines, more electronics, larger fish holds, and the necessary deck gear and nets to operate in the trawl fisheries. Similar-sized fixed gear vessels that participate in commercial salmon fisheries with purse seine gear have not made the necessary investment to participate in the trawl fisheries. There are far more vessels in this class using fixed gear than trawl gear. The feasibility of fishing BSAI Pacific cod with CVs <60' LOA was enhanced with the implementation of BSAI Amendment 64 in 2000, in which this sector received a direct allocation of BSAI Pacific cod. This

[38] Amendment 64 (Sept. 2000) and Amendment 77 (Jan. 2004) to the BSAI FMP further allocated the fixed gear BSAI Pacific cod fishery between the hook-and-line and pot sectors of the fixed gear fleets. Am. 77, among other actions, establishes separate BSAI Pacific cod allocations for the pot CP and pot CV sectors. Most recently, the Council approved Am. 85 in April 2006, to revise the BSAI Pacific cod allocations to the trawl, fixed, and jig gear sectors. This amendment has not yet been implemented.

allocation was extended in 2004 with the implementation of BSAI Amendment 77, and was recently increased by the Council's action under BSAI Amendment 85. **All CVs <60' that fish in the GOA would be affected by Alternatives 3 - 5. CVs <60' that fish in the BSAI would be affected by Alternatives 4 and 5.**

An additional large group of CVs is less than or equal to 32' LOA. A length of 32 ft is the maximum for the Bristol Bay salmon drift gillnet fishery, and vessels in this fishery typically are built to this size limit. Similar size restrictions do not apply to other salmon management areas in the State. The vessels may use a mix of hook-and-line, jig, and pot gear to harvest groundfish before or after the salmon season, or hook-and-line gear to harvest halibut. Most of these vessels participate in groundfish fisheries to augment their earnings from Alaska salmon fisheries. These vessels obtain most of their groundfish revenues from harvests of Pacific cod, sablefish, and rockfish.

Halibut vessels. Only hook-and-line gear can be used in the directed halibut fishery. Participation in this fishery is controlled by the regulations for the halibut IFQ program and the halibut CDQ program. The IFQ program allows very limited participation in the halibut fishery by freezer longline vessels. Halibut CVs principally deliver their catch to inshore processors. However, a small part of the halibut catch is sold directly to restaurants, retail outlets, or to final consumers. Many of the vessels in this category operate solely with hook-and-line fixed gear, focusing on halibut and relatively high-value groundfish such as sablefish and rockfish. These two groundfish fisheries and the halibut fishery generate high revenue per ton, and these vessels often enter other high-value fisheries, such as the albacore fisheries on the high seas. The reliance of these vessels on the halibut and groundfish fisheries sets them apart from smaller fixed gear CVs permitted to operate in Alaska salmon fisheries with multiple gear types. Overall, this fleet is relatively diverse. Approximately 90% of halibut vessels are <60' and 70% also participate in at least one groundfish fishery. **Halibut vessels would be affected by Alternatives 3 - 5.**

4.2.4 Shoreside processors

AFA inshore processors. There are six shoreside and two floating processors eligible to participate in the inshore sector of the BSAI pollock fishery. Three AFA shoreside processors are located in Dutch Harbor/Unalaska. The communities of Akutan, Sand Point, and King Cove are each home to one AFA shoreside processor. The shoreside processors produce primarily surimi, fillets, roe, meal, and a minced product from pollock. Other products such as oil are also produced by these plants, but they account for relatively minor amounts of the overall production and revenue. These plants process a variety of species, including other groundfish, halibut, and crab, but have historically processed very little salmon. In total, the inshore processors can take BSAI pollock deliveries from a maximum of 97 CVs, as of June 2000, according to the regulations implemented by the AFA. The two floating processors in the inshore sector are required to operate in a single BSAI location each year, and they usually anchor in Beaver Inlet in Unalaska. However, one floating processor has relocated to Akutan. The two floating inshore processors have historically produced primarily fillets, roe, meal, and minced products. **Those AFA inshore processors that receive groundfish harvested in the GOA would be affected by Alternatives 3 and 5, and those that only process groundfish harvested in the BSAI would be affected by Alternative 5**.

Non-AFA inshore processors. Non-AFA inshore plants include shore-based plants that process Alaska groundfish and several floating processors that moor near shore in protected bays and harbors. This group includes plants engaged in primary processing of groundfish, and does not include plants engaged in secondary manufacturing, such as converting surimi into analog products, such as imitation crab, or further processing of other groundfish products into ready-to-cook products. **Those shoreside processors that process groundfish harvested in the GOA would be affected by Alternatives 3 - 5, and all non-AFA inshore processors could potentially be affected by Alternatives 4 and 5.** Four groups of non-AFA inshore processors are described below. The groupings are primarily based on the regional location of the facilities: (1) Alaska Peninsula and Aleutian Islands, (2) Kodiak Island, (3) Southcentral Alaska, and (4) Southeast Alaska. Information provided in the narratives below includes all inshore processors for each area collectively, and does not differentiate between size classes or coverage levels.

Alaska Peninsula and Aleutian Islands inshore plants. In 2005, ten Alaska Peninsula and Aleutian Islands plants participated in the groundfish fisheries. In 2005, these plants processed 664,596 mt round weight, of which 609,510 mt (92%) was pollock and 48,442 mt (7%) was Pacific cod. In 2005, 48,509 mt (7%) came from the Western GOA and 616,087 mt (93%) came from the BSAI.

Kodiak Island inshore plants. Most Kodiak plants process all major groundfish species groups every year, although generally fewer plants process pollock than process other species. In 2005, all of the plants processed sablefish and 6 of the 8 processed pollock, Pacific cod, flatfish, and rockfish. The plants processed a total of 97,239 mt round weight of groundfish in 2005, 49% of which was pollock and 25% of which was Pacific cod. All of the plants receive fish from the Central GOA regulatory area which in 2005 accounted for 97% of the total processed weight. Some of the plants also receive fish from the Western GOA (0.2%) and Eastern GOA (3%) regulatory areas.

Southcentral Alaska inshore plants. This group includes plants that border the marine waters of the GOA (east of Kodiak Island), Cook Inlet, and Prince William Sound. In 2005, there were 11 plants in southcentral Alaska processing groundfish. Most plants reported processing Pacific cod, rockfish, and sablefish in 2005. The plants processed a total of 6,079 mt round weight of groundfish, 79% of which was sablefish. Virtually all of the plants receive fish from the Central GOA reporting area every year. Many also receive fish from the Eastern GOA regulatory area. None of the processors took deliveries from CVs operating in the BSAI.

Southeast Alaska inshore plants. In 2005, there were 13 plants in southeast Alaska processing groundfish. Most plants reported processing sablefish and rockfish in 2005. The plants processed a total of 5,201 mt round weight of groundfish, 89% of which was sablefish. Most of the groundfish was from the Eastern GOA reporting area (99%).

Shoreside processors that process between 500 mt and 1000 mt of groundfish in a calendar month currently are required to have observers 30% of the days that they receive or process groundfish. Shoreside processors that process 1000 mt or more of groundfish in a calendar month are required to have observers 100% of the days that they receive or process groundfish. Other regulations provide special coverage requirements for CDQ and AFA species.

4.2.5 Observer provider companies

Five observer provider companies are currently permitted and active in the North Pacific, reduced from six in 2000. These companies are: Alaskan Observers, Inc. (AOI); NWO, Inc. (NWO); Saltwater Observers, Inc. (SWI); TechSea International (TSI); and MRAG Americas, Inc. (MRAG). Of these, three are based in the Seattle area, one is based in Anchorage, and one is based in Florida, with a satellite office in Anchorage. The principal activity of most of these companies is providing observers for the North Pacific Groundfish Observer Program, and most of them also provide observers for other observer programs within or outside of Alaska, or are involved in other business activities. There are substantial differences among the observer providers in terms of both the proportion of their income generated by providing observers for the groundfish fishery and the proportion of the total groundfish observer deployment days they provide. All of the observer provider companies are considered small entities under the Regulatory Flexibility Act (the definition and implications of which are presented in the IRFA, below).

4.2.6 Observer coverage levels under the alternatives

One of the issues of primary interest to industry and the public is the issue of coverage levels. Under the existing program (Alternatives 1 and 2), four basic coverage levels are established in regulation: 200% coverage, 100% coverage, 30% coverage, and zero coverage. Vessels and processors fall into one of these four categories based on various criteria, including vessel size, processing mode, target fishery, and participation in special programs such as the CDQ fishery. Under the restructuring alternatives (Alternatives 3 – 5), these four basic coverage levels would be replaced by four coverage tiers:

- **Tier 1 fisheries (200% coverage).** These are fisheries in which two observers must be present so that observers are available to sample every haul. It should be emphasized that the term 200% coverage does not mean that two observers are working simultaneously to "double-cover" each haul. Rather, two observers are available to work in 12 hour shifts so that a vessel or processor that is operating 24 hours per day always has an observer on duty to sample hauls whenever they occur. Most Tier 1 vessels and processors operate 24 hours per day during the fishing season, and it would be impossible for a single observer to monitor all fishing activity. Tier 1 fisheries are generally those in which observers are directly involved in the accounting of individual vessel catch or bycatch quotas, as well as collecting scientific data and samples.

- **Tier 2 fisheries (100% coverage).** These are fisheries in which one observer is deployed on each vessel and processor. In contrast to Tier 1, it is recognized that the observer will likely be unable to sample all hauls or deliveries, due to workload constraints, and will, therefore, follow random sampling procedures so that the vessel or processor will not know in advance which hauls or deliveries will be sampled. Under certain circumstances, vessels that would otherwise qualify for Tier 1 coverage could operate with a single observer in Tier 2, if they are operating under restricted hours, or under an alternative monitoring plan approved by NMFS.

- **Tier 3 fisheries (regular coverage generally less than 100%).** *(This tier replaces the 30% coverage requirement under the status quo program).* These are fisheries in which NMFS is dependent on observer coverage for inseason management, but in which 100%coverage on every vessel is unnecessary, because observer data is aggregated across a larger fleet. Vessels participating in Tier 3 fisheries can expect to receive coverage on a regular basis and will be required to carry observers when requested to do so by NMFS. However, the actual coverage that each vessel receives will depend on the coverage priorities established by NMFS and the sampling plan developed for the individual fishery in which the vessel is participating. The actual

coverage a particular vessel or processor receives could range from zero to 100%, but on a fleet-wide basis, coverage levels are more likely to average closer to 30%.

- **Tier 4 fisheries (previously unobserved fisheries).** These are fisheries in which NMFS has not previously deployed observers and, therefore, fisheries in which NMFS has not been able to depend on observer data for inseason management. Acquisition of observer data for these segments of the fishery is an important aspect of the program restructuring proposals. Coverage levels in Tier 4 fisheries are expected to be low and infrequent at the outset of the program, until NMFS and the fishing industry gain experience with the issues involved with deploying observers on smaller vessels. At the outset of the program, NMFS anticipates that limited coverage in Tier 4 fisheries would be used primarily for special data needs and research, rather than inseason management. Halibut vessels, jig vessels, and groundfish vessels <60' are proposed to be in Tier 4. In these fisheries, NMFS could deploy observers on vessels when necessary to collect needed baseline data or to respond to specific data needs, but would not deploy observers on a regular basis to collect inseason management data. Vessels participating in Tier 4 fisheries would be required to carry observers when requested to do so by NMFS. But, because coverage is expected to be lower than in Tier 3 fisheries, vessels in Tier 4 may not be expected to follow the same procedures (e.g., check-in, check-out, discussed above in Chapter 2) as the vessels in Tier 3 that receive more regular coverage.

Under this new four tier structure, the coverage levels would remain unchanged from the status quo for most vessels and processors that currently have 100% or 200% coverage requirements. While existing regulations specifying the type and level of coverage in Tier 1 and Tier 2 fisheries may require some adjustment and consolidation under the restructured program, none of the alternatives under consideration (other than the no action alternative) would completely repeal the coverage requirements for vessels in Tier 1 and Tier 2 fisheries. The biggest change in coverage would occur for vessels that currently have 30% coverage requirements, or no coverage requirements. Under the four tier structure, most current 30% vessels would be in Tier 3 and can expect regular coverage at a level less than 100%. Most vessels that currently have no coverage requirements would be in Tier 4 and would be required to carry an observer when requested by NMFS, but can expect such coverage to be a relatively infrequent occurrence, especially in the initial years of the program. A summary of the proposed tier classifications is provided in Table 4-6.

Table 4-6 Proposed tier levels for vessels and processors under Alternatives 3 - 5

Vessel/processor/fishery	*Current coverage requirements*	*Proposed tier classification*
AFA CPs	200% coverage	Tier 1
CDQ CPs	200% coverage	Tier 1
AFA motherships	200% coverage	Tier 1
AFA inshore processors	1 observer for each 12 hour period (i.e. 2 observers if plant operates more than 12 hours/day)	Tier 1
Non-AFA trawl CP vessels ≥125' in the BSAI	100% coverage[1]	Tier 2
CPs fishing for Atka mackerel in the Aleutian Islands Subarea	200% coverage	Tier 1
Non-AFA trawl CP vessels <125' in the BSAI	30% coverage[2]	Tier 2
Non-AFA trawl CP vessels ≥125' in the GOA	100% coverage	Tier 2
CVs >60' and pot CPs fishing CDQ	100% coverage	Tier 2
Non-AFA Trawl H&G vessels <125' in the GOA	30% coverage	Tier 2
Non-AFA inshore processors	0%, 30%, or 100% based on processing volume	Tier 3
Trawl CVs ≥125' (Including CDQ and AFA)	100% coverage	Tier 2[3]
Trawl CVs 60'-125' (Including CDQ and AFA)	30% coverage	Tier 3
Hook-and-line CPs ≥125'	100% coverage	Tier 2
Hook-and-line CPs 60'-125'	30% coverage	Tier 2
Hook-and-line CVs 60'-125'	30% coverage	Tier 3
Hook-and-line CVs ≥125'	100% coverage	Tier 3
Pot vessels ≥60'	30% coverage	Tier 3
Halibut vessels	no coverage	Tier 4
Jig vessels (all sizes)	no coverage or 30% depending on vessel length	Tier 4
Groundfish vessels <60'	no coverage	Tier 4

[1]The final rule for BSAI Am. 79 was published on April 6, 2006 (71 FR 17362). This rule requires at least two level 2 observers each day a non-AFA trawl CP ≥125' is harvesting or processing groundfish in the BSAI. NMFS may authorize the vessel to carry only one lead level 2 under an alternative processing plan. This rule will be effective January 20, 2008.
[2]Note: 200% coverage is proposed under BSAI Amendment 80. Final Council action was taken in June 2006.
[3]While trawl CVs ≥125' are currently proposed to be in Tier 2 (100% coverage requirement), NMFS notes that assignment to Tier 3 may be possible in the future combined with a video monitoring requirement.

4.2.7 Description of and basis for Tier 1 coverage

Under existing regulations, three management initiatives (CDQ, AFA, Steller sea lion protection) impose 200% coverage on some or all vessels and processors participating in the respective management programs. Under the proposed new tier structure, all of these vessels and processors would be included in Tier 1. No changes in coverage requirements for 200% coverage vessels or processors are proposed under the new tier structure. The following groups of vessels and processors would continue to be subject to 200% coverage:

- **CDQ Program -** Trawl and hook-and-line CPs fishing in the CDQ program.
- **AFA pollock fishery -** AFA CPs in all fisheries, AFA motherships, and AFA inshore processors when processing AFA pollock.
- **Aleutian Islands Atka mackerel fishery -** Under existing Steller sea lion protection measures, all CPs fishing for Atka mackerel in the Aleutian Islands subarea must carry two observers at all times, if participating in the registration program that allows fishing in Steller sea lion critical habitat.

Note also that BSAI Amendment 79, which establishes a groundfish retention standard[39] for all non-AFA trawl CPs ≥125' fishing and processing groundfish (excluding directed pollock) in the BSAI, also requires that all regulated vessels are to use NMFS-certified scales to determine total catch and either maintain 200% observer coverage, or use one observer and an alternative scale use verification plan approved by NMFS. The 200% coverage requirement was established because NMFS determined that effective enforcement of the program required that an observer be available to determine the total catch weight of each haul by monitoring the flow scales and ensuring that all groundfish harvested by the vessel is weighed. The groundfish retention standard would not supersede the 100% retention standard for pollock and Pacific cod under existing regulations.

BSAI Amendment 79 will be effective January 20, 2008. Until such time that Amendment 79 establishes new coverage requirements for this sector, BSAI non-AFA trawl CPs ≥125' are proposed to be in Tier 2 (100% coverage requirement) under the observer program restructuring alternatives in this analysis.

During the development of each of the three management programs in the bulleted list above, 200% coverage was determined to be necessary for a variety of reasons. The following is a summary of the NMFS and the Council's stated rationale for 200% coverage in each program in which it is currently required.

200% coverage in the CDQ program

In developing regulations to implement the CDQ program, NMFS interpreted the Council's original motion regarding the CDQ Program, along with other periodic consultations with the Council prior to implementation, to represent the following fisheries management objectives.

- Allocate a percentage of all BSAI groundfish species and prohibited species to the CDQ Program to provide eligible western Alaska communities the opportunity to participate in all BSAI groundfish fisheries to support fisheries-related economic development and employment in these communities.

[39]The final rule for BSAI Am. 79 establishes the following annual retention requirements: 2008 (65%); 2009 (75%); 2010 (80%); 2011 and each year thereafter (85%). See 71 FR 17362, 4/6/06.

- NMFS must manage the CDQ fisheries so that the overall catch is limited to the percentage allocated to the CDQ Program. No catch of CDQ or PSC species from the groundfish CDQ fisheries will be allowed to accrue against the non-CDQ TAC amounts or PSC limits.

- All quota categories will be managed with the same level of accounting. No distinction will be made between target species and incidental catch, or between retained and discarded catch.

- Groundfish incidental catch in the halibut CDQ fisheries should accrue against the CDQ groups' groundfish CDQ allocations.

The original CDQ Program design stipulated that all groundfish CDQ and PSQ harvested by vessels participating in the groundfish CDQ Program must be accounted for in the allocations made to CDQ groups. This was the premise for the original catch accounting structure for the multispecies CDQ Program, as developed in 1998. While, for the most part, none of the groundfish or PSQ catch made in the groundfish CDQ fisheries accrues to the non-CDQ TACs or PSC limits, there are exceptions to this original design, including those made for squid, pollock, and "other species."

Squid was removed from being an allocated CDQ reserve in 1999, subsequent to the increase of the pollock CDQ allocation from 7.5% to 10% of the annual pollock TAC under the AFA. Squid caught in the CDQ fisheries accrues towards the annual squid TAC. The AFA also brought changes to how pollock caught in fisheries other than the directed pollock fishery should be accounted for in both CDQ and non-CDQ fisheries. Pollock caught in CDQ fisheries other than the directed CDQ pollock fishery accrues towards the annual pollock incidental catch allowance (ICA), as does pollock caught in other non-CDQ, non-pollock fisheries. Pollock accruing towards the pollock ICA does not account toward either the pollock CDQ reserve or towards individual groups' pollock CDQ allocations.

The "other species" category is another exception. This CDQ reserve is no longer allocated to individual CDQ groups, based on a 2003 Council recommendation intended to alleviate a potential constraint on CDQ target fisheries. Instead, "other species" catch in the CDQ fisheries accrues towards the annual other species CDQ reserve. If the entire annual amount of "other species" available in this reserve is caught, additional other species catch in the CDQ fisheries accrues towards the non-CDQ other species TAC. NMFS has assumed the management of other species catch in the CDQ fisheries, in conjunction with the management of other species catch in the BSAI groundfish fisheries as a whole.

Based on these objectives, NMFS developed a management program in which the majority of CDQ fishing activities are monitored by observers. All groundfish catch on vessels equal to or greater than 60 ft LOA, and all groundfish CDQ deliveries to shoreside processors must be monitored by a certified groundfish observer. Observers monitoring CDQ fisheries must meet certain performance standards beyond those required for basic certification. This includes prior experience as an observer, meeting or exceeding certain performance ratings, and completion of "Level 2" observer training. Observer data provides:

- estimates of total catch weight for all groundfish CDQ species (not just retained catch)
- an independent source of information about groundfish CDQ catch, rather than vessel operator estimates
- catch data that is available to vessel operators, NMFS, and CDQ groups in a timely manner

Vessels fishing for groundfish CDQ must have the required number of appropriately trained and rated (Level 2) observers to participate in the groundfish CDQ fishery, as detailed in Table 4-7. Each CDQ set

or haul must be available to be sampled. CDQ deliveries to shoreside processors must be monitored by a Level 2 Observer. The effect of these requirements is that all trawl and hook-and-line CPs are required to have 200% observer coverage.

While this analysis does not currently propose any changes to CDQ coverage requirements, the Council and NMFS may wish to consider whether some of the existing requirements can be consolidated upon implementation of a new program restructuring (under Alternatives 3 - 5) that includes some or all of the CDQ fisheries.

Table 4-7 CDQ program coverage requirements

Vessel or Processor Category	*CDQ Observer Requirements*
CV <60 ft, any gear	none
CV ≥60 ft trawl gear	1 Level 2 observer
CV ≥60 ft, nontrawl gear, Option 1[1]	1 Level 2 observer
CV ≥60 ft, nontrawl gear, Option 2[2]	1 lead Level 2 observer
CP, trawl and motherships-*directed fishing for pollock*	1 lead Level 2 observer and 1 regular observer
CP, trawl and motherships-*not directed fishing for pollock*	1 lead Level 2 and 1 Level 2 observer
CP, hook-and-line gear	1 lead Level 2 and 1 Level 2 observer
CP, pot gear	1 lead Level 2 observer
Shoreside processor[3], deliveries from vessels using trawl gear	1 Level 2 observer for each CDQ delivery
Shoreside processor, deliveries from vessels <60' using nontrawl gear and groundfish CDQ fishing	1 Level 2 observer for each CDQ delivery
Shoreside processor, deliveries from vessels <60' using nontrawl gear and halibut CDQ fishing	no observer required for delivery
Shoreside processor, deliveries from vessels using nontrawl gear, Option 1[1]	1 Level 2 observer per CDQ delivery. May use vessel observer under certain conditions.[4]
Shoreside processor, deliveries from vessels using nontrawl gear, Option 2[2]	no CDQ observer required for delivery

[1]Option 1 refers to the CDQ catch accounting option that requires the vessel operator to retain all groundfish CDQ and salmon PSC and deliver it to a processor where it is sorted by species, weighed, and reported to NMFS. Under this option, CDQ catch accounting data is based on the processor's reports for groundfish CDQ and salmon PSC and on the observer data for halibut PSC, if applicable.

[2]Option 2 refers to the CDQ catch accounting option under which the CDQ group chooses to use data collected by the vessel Level 2 observer to estimate the catch of all groundfish CDQ and PSC. Under this option, catch may be discarded at sea and the processor's reports of landed catch weight are not used as the basis for CDQ catch accounting.

[3]Includes stationary floating processors.

[4]Instead of having a separate observer for the shoreplant, the vessel observer may monitor sorting and weighing of CDQ delivery as long as working hour limitations for the vessel observer are not exceeded.

200% coverage in the AFA pollock fishery

In the AFA pollock fishery, all AFA CPs and motherships are required to maintain 200% coverage, and all inshore processors are required to maintain at least one observer for every 12 hour period in which the plant receives or processes groundfish. For AFA inshore processors, the effect is that they must maintain 200% coverage during every day in which they operate more than 12 consecutive hours. Under the AFA, CVs are not required to maintain any additional coverage beyond that which is required of all CVs for each length category in regulation.

The 200% coverage requirement for all AFA CPs is set out at paragraph 211(b)(6) of the AFA which states:

> *(6) OBSERVERS AND SCALES.—The catcher processors eligible under paragraphs (1) through (20) of section 208(e) shall—*
>
> *(A) have two observers onboard at all times while groundfish is being harvested, processed, or received from another vessel in any fishery under the authority of the North Pacific Council; and*
>
> *(B) weigh its catch on a scale onboard approved by the National Marine Fisheries Service while harvesting groundfish in fisheries under the authority of the North Pacific Council.*

The AFA does not address observer and scale requirements for AFA motherships and inshore processors, however, in developing regulations to implement the AFA, NMFS determined that similar requirements were necessary for motherships and inshore processors. The 200% coverage requirement was determined to be necessary in order to accommodate the formation of cooperatives in the mothership and inshore processing sector, as authorized by the AFA. The primary purpose of establishing cooperatives in the AFA pollock fishery was to rationalize the fishery, by allowing each individual vessel owner prepared to join a co-op to secure their own pollock quota allocation that could be fished or leased to other fishermen. The successful implementation of the cooperative program in the mothership and inshore sectors required that NMFS monitor each individual landing by every vessel, in every cooperative so that the numbers used by NMFS to manage the fishery would match the numbers used by each cooperative to manage their collective harvests. This level of monitoring requires 200% coverage and certified scales at each location where pollock is landed and processed, meaning all AFA CPs, motherships, and inshore processors.

In addition, NMFS is responsible for monitoring sideboard limits on the amount of groundfish and PSC that may be harvested by AFA vessels. Therefore, the AFA-related 200% coverage requirement extends to all groundfish harvested and processed by AFA CPs and motherships, not just pollock, with one exception. Because unlisted AFA CPs are not subject to the sideboard restrictions, the 200% coverage requirement only applies while they are engaged in directed fishing for pollock. The AFA CP fleet is divided into two categories of vessels: listed CPs are those listed by name in the AFA, and unlisted CPs are those that are not listed by name in the AFA, but that qualify based on having harvested more than 2,000 mt of pollock in 1997. Only one unlisted AFA CP has been permitted by NMFS. Table 4-8 provides a summary of AFA observer coverage requirements.

Table 4-8 Observer requirements for AFA CPs, motherships, inshore processors, and CVs

Vessel or processor type	*Coverage requirement*
AFA listed CP	Two NMFS-certified observers, at least one of which must be certified as a lead level 2 observer, for each day that the vessel is used to harvest, process, or take deliveries of groundfish. More than two observers are required if the observer workload restriction would otherwise preclude sampling every haul.[1]
AFA unlisted CP	Two NMFS-certified observers for each day that the vessel is used to engage in directed fishing for pollock in the BSAI, or takes deliveries of pollock harvested in the BSAI. At least one observer must be certified as a lead level 2 observer. When an unlisted AFA catcher processor is not engaged in directed fishing for BSAI pollock and is not receiving deliveries of pollock harvested in the BSAI, the general observer requirements for non-AFA CPs of the same size class apply.
AFA mothership	Two NMFS-certified observers, at least one of which must be certified as a lead level 2 observer, for each day that the vessel is used to harvest, process, or take deliveries of groundfish. More than two observers are required if the observer workload restriction would otherwise preclude sampling every haul.[1]
AFA inshore processor	One observer for each consecutive 12-hour period of each calendar day during which the processor takes delivery of, or processes, groundfish harvested by a vessel engaged in a directed pollock fishery in the BSAI. An AFA inshore processor that takes delivery of or processes pollock harvested in the BSAI directed pollock fishery for more than 12 consecutive hours in a calendar day is required to provide two NMFS-certified observers for each such day.
AFA CVs	No additional coverage requirements beyond those that apply to all CVs, based on vessel length.

[1]The time required for the observer to complete sampling, data recording, and data communication duties may not exceed 12 consecutive hours in each 24-hour period, and the observer may not sample more than 9 hours in each 24-hour period.

Aleutian Islands Atka mackerel fishery

The 200% observer coverage requirements for the Aleutian Islands Atka mackerel fishery were included in the final rule that established Steller sea lion protection measures in the pollock, Pacific cod, and Atka mackerel fisheries (68 FR 204, January 2, 2003). This final rule established a "platoon" system, in which vessels wishing to fish for Atka mackerel inside Steller sea lion critical habitat are assigned in equal numbers to one of two platoons. One platoon is then permitted to begin Atka fishing in Area 542, while the other begins in Area 543. All participants are subject to strict limits on the amount of Atka mackerel that can be harvested within critical habitat in each area. Because Atka mackerel vessels may fish both inside and outside of critical habitat during a fishing trip, NMFS determined that an observer must be present to sample and estimate the amount of Atka mackerel in every haul, so that total removals from critical habitat can be accurately determined. Because CPs fishing for Atka mackerel generally operate on a 24 hour basis, this requirement meant that two observers must be present on every vessel to ensure that all hauls can be sampled.

4.2.8 Description of and basis for Tier 2 coverage

Under existing regulations, all trawl and hook-and-line vessels ≥125' fishing for groundfish in the BSAI and GOA are subject to 100% coverage requirements, unless they are subject to 200% coverage under one of the four programs described above under Tier 1. Shoreside and stationary floating processors that

process more than 1,000 mt round-weight equivalent of groundfish in a calendar month are required to have at least one observer present for each day that groundfish is received or processed during that month. These 100% coverage requirements were implemented in 1990, under Amendments 13/18 which established zero, 30%, and 100% coverage requirements for all vessels, based on vessel length and processing volume. Under Amendments 13/18, it was assumed that the larger and higher-volume operations (vessels ≥125' and processors with volume over 1000 mt/month) would be better able to afford and accommodate higher levels of coverage, and that it was more efficient to impose higher coverage requirements on those vessels and processors that were harvesting and processing larger volumes of groundfish.

In addition, CVs ≥60' of all gear types, and pot CPs, fishing in the CDQ program are required to have 100% coverage under the CDQ observer coverage requirements as displayed in Table 4-7. Finally, under BSAI Amendment 79 (effective 1/20/08), CPs subject to the new groundfish retention standard have the option of operating with 100% (rather than the required 200%) coverage if they use an alternative scale use verification plan approved by NMFS to ensure that all groundfish hauls are weighed and properly accounted.

In determining which vessel classes and fisheries to assign to the Tier 2 category, decisions must be made about which of these vessels and processors must continue to have 100% coverage for management purposes, and which could be included in the more flexible Tier 3 category under which NMFS determines the coverage for each vessel (which could range from zero to 100%).

In fisheries where the observer is actively involved in the monitoring of some form of individual vessel quota, such as is the case for vessels required to have coverage under the CDQ program and BSAI Amendment 79, the monitoring demands of each respective program require the presence of an observer. The monitoring plan for CDQ and alternate scale use verification plan for Amendment 79 cannot accommodate less than 100% coverage without jeopardizing the program objectives and enforcement of each program. **Therefore, in both these instances, 100% coverage would continue to be required and both fisheries would be assigned to Tier 2.**

For those vessels currently required to have 100% coverage that are not participating in any type of individual quota program, the decision about whether 100% coverage is required is more difficult. Four general groups of vessels and processors fall into this category:

- non-AFA trawl CPs ≥125' operating in the GOA
- hook-and-line CVs and CPs ≥125' operating in both the GOA and BSAI
- AFA CVs ≥125' operating in the BSAI and GOA, and
- shore-based processors that process more than 1000 mt round-weight equivalent of groundfish in a calendar month.

One processor sector that currently has 100% coverage requirements is proposed for inclusion in Tier 3 (non-AFA inshore processors), **and two catcher processor sectors that currently have 30% coverage requirements (hook-and-line, and non-AFA trawl CPs <125') are proposed to be included in Tier 2.** Another group of vessels (trawl catcher vessels ≥125') may be a candidate for moving to Tier 3 in the future. Refer to Table 4-6. The rationale for these three changes, as well as some discussion on catcher vessels ≥125', is provided in the following sections.

Non-AFA inshore processors

Under the existing regulations, coverage requirements for non-AFA inshore processors are based on processing volume with higher-volume processors subject to 100% observer coverage requirements.

Under the proposed new tier classification scheme, all non-AFA inshore processors would see a reduction in observer coverage requirements, by be grouped into the Tier 3, < 100% coverage category. As such, these inshore plants would be subject to observer coverage when requested to receive an observer by NMFS. This would provide NMFS with flexibility in deployment of observers to meet dynamic science and management goals. Additionally, some shoreside processors have been allowed to share observers in the past to accommodate plants' concerns with observer costs, and there have been instances where deliveries have gone unobserved. Under a restructured observer program, each plant would be paying a share of each delivery, and NMFS could deploy observers to observe deliveries as needed, thus alleviating NMFS' concerns associated with current observer deployments at plants in Kodiak.

Because plant observers at non-AFA plants are not directly involved in catch accounting, as they are at AFA plants, and do not collect information used for inseason management purposes, there is a less compelling reason to maintain 100% coverage at all higher-volume processors if such observers may be more useful when deployed elsewhere.

It should be noted here that proposed structural changes to observer coverage on catcher vessels (i.e., proposed reduction of onboard observers for some tier 3 CVs) and at non-AFA inshore processors (i.e., proposed reduction of required observer coverage at some tier 3 non-AFA shoreside plants) need to be carefully coordinated to meet catch accounting, enforcement, and biological information needs. As previously cited, advances in technology and changes to management programs could feasibly reduce observer coverage on catcher vessels, with the expressed expectation of transferring some of the catch accounting duties to the observers deployed at shoreside processors. Clearly, this could not be achieved if the plant did not have observer coverage for all such landings from unobserved CVs. This would demand a very significant level of coordination between CVs, the plants they deliver catch to, and observer deployment agents. Managers would be required to gather relatively detailed operational information to make informed decisions about observer deployments, relative to limited observer resources and the benefits of deploying observers at inshore processors or on catcher vessels. These deployment patterns would likely be modified over time as managers learn to increase information gathering efficiency and new information needs are identified.

Catcher vessels ≥125'

Hook-and-line CVs ≥125' are proposed in this document to be in Tier 3 under the restructuring alternatives; compared to the 100% coverage requirement under the status quo. Trawl CVs ≥125', including CDQ and AFA, are currently proposed to be in Tier 2 under the restructuring alternatives (see Table 2-3). The proposed tier level for trawl CVs ≥125' does not differ from the status quo coverage requirement of 100% observer coverage, but warrants some discussion, due to the ***future*** potential to classify this sector in Tier 3 (see discussion of video monitoring advances in Chapter 2). Most CVs ≥125' are AFA vessels that operate primarily in the AFA pollock and BSAI Pacific cod fisheries. Because such vessels are subject to AFA groundfish sideboards in the GOA, they have only operated to a limited extent in the GOA, since the implementation of the AFA. Therefore, the two fisheries of primary interest are the AFA pollock and BSAI Pacific cod fisheries. In both of these fisheries, CVs over and under 125' operate side-by-side and deliver to the same processors.

For these reasons, analysts contend that there is no compelling reason to subject these two components of the AFA fleet to different coverage levels. In the case of the pollock fishery, unlike the case of AFA CPs

that must weigh their catch as it is harvested, the primary location for catch accounting for CVs is the processing plant, rather than the vessel, and all pollock landings are weighed on certified scales and observed by a plant observer, albeit many hours or even several days *after* being caught. The primary task of vessel observers on AFA vessels is to collect PSC data (primarily salmon and herring) and to ensure that pollock and Pacific cod are not discarded, in violation of full retention requirements. While larger vessels tend to harvest and deliver larger volumes of pollock, the disparity between AFA CVs greater and less than 125' is not sufficient, **in and of itself**, to require higher levels of coverage on vessels ≥125'. However, note that all CVs have some ability to sort their catch at-sea, and some CVs have the capacity to do extensive sorting, because they load their fish holds via conveyer systems. This raises monitoring and enforcement concerns about pre-delivery discarding, if observers are not present. On vessels directed fishing for pollock, fishing activities are such that nearly all hauls can be observed when an observer is present. Requiring 100% coverage on these larger CVs helps to deter illegal sorting activities at sea, and this document does not propose to reduce coverage on these vessels at this time.

In the BSAI Pacific cod fishery, the operational disparity between AFA CVs greater than and less than 125' is even smaller. Many of the larger AFA CVs have been designed specifically to operate in the high-volume mid-water pollock fishery, such that they do not generally engage in bottom trawling for Pacific cod. Because it is less efficient for them, compared to smaller, more versatile CVs, the number of AFA CVs ≥125' that operate in the BSAI Pacific cod fishery is smaller than in the AFA pollock fishery. The result is less disparity in the groundfish volumes harvested by vessels greater than and less than 125' in the BSAI Pacific cod fishery.

As stated previously, trawl CVs ≥125', including CDQ and AFA, are currently proposed to be placed in Tier 2 under the restructuring alternatives. NMFS believes it may be appropriate to consider including all ***AFA CVs*** in Tier 3 in the future, only with the inclusion of a video monitoring requirement to ensure that catch is not sorted or discarded at sea. Note that video monitoring faces several unresolved implementation issues, including confidentiality and the cost of interpreting the data. A rigorous at-sea video monitoring program for the AFA inshore sector could greatly reduce the number of observers required to monitor this fleet, because species composition and PSC monitoring could, at least in theory, be accomplished at the processing facility. Because pollock fisheries tend to have relatively low bycatch and AFA CVs are required to deliver all catch, monitoring for compliance with "no-discard" regulations in the AFA inshore CV fleet may be the most appropriate place in which monitoring technologies such as video could be tested as an alternative to traditional coverage. Additional information on the current state of video monitoring technology is contained in Appendix 1.

Hook-and-line and non-AFA trawl CPs <125'

Hook-and-line CPs <125' operate primarily in the BSAI Pacific cod fishery, and to a lesser extent in the halibut/sablefish IFQ fishery and GOA Pacific cod fisheries. The hook-and-line CP fleet in the BSAI is divided between vessels under and over 125' that currently face 30% and 100% coverage requirements, respectively. In 2003, 11 hook-and-line CPs <125' and 29 hook-and-line CPs ≥125' operated in the BSAI Pacific cod fishery. However, despite the length difference, these two groups of hook-and-line CPs generally operate in an identical manner, and often harvest similar volumes of groundfish. This is because some hook-and-line CPs were built right up to the 125' size limit and have similar operational capacities as vessels greater than 125'. This is especially the case in the hook-and-line fishery where catch per unit effort is less dependent on horsepower than in the trawl fisheries. In contrast to trawl vessels, the speed at which both hook-and-line and pot vessels are able to retrieve gear and harvest fish is more dependent on the skill of the crew, than on the horsepower or length of the vessel.

In 2003, seven trawl CPs <125' operated in the GOA, and two in the BSAI. Under current regulations, these vessels are subject to 30% coverage. Many of these vessels are former CVs that were converted to

at-sea processing by adding plate freezers and converting their fish holds into freezer holds. These vessels generally target Pacific cod, flatfish, and rockfish in the GOA and BSAI. The Council took final action on BSAI Amendment 80 in June 2006. As approved, Amendment 80 would allow non-AFA trawl CPs to form cooperatives. All vessels fishing under Amendment 80 would likely be required to carry two observers at all times they are fishing in the BSAI. Additionally, similar monitoring standards are likely to be proposed for all CPs under the Central GOA rockfish pilot project. If these two actions are adopted, trawl CPs <125' likely will be placed in Tier 1, and restructuring the observer program will not affect coverage levels for these vessels. If these actions are not adopted, these vessels would likely be placed in Tier 2 (100% coverage).

NMFS currently uses both observer data and weekly processor reports (WPRs) to account for catch on CPs. When observer data are available, they are used as the record of catch. When they are not available, the WPR is used. NMFS considers the WPR to be an inferior tool for total catch accounting. Catcher processors process all of their groundfish catch offshore, and vessel operators report the product weight of groundfish catch on WPRs. To convert this production to an estimate of the round weight of fish, NMFS managers apply a published product recovery rate (PRR) to the production weights, and add an estimate of discard, which is also reported on WPRs. NMFS considers observer data to be a better measure of total catch than self-reported data for the reasons described below. These reasons apply to all CPs, regardless of gear type. While these same data quality arguments could be made for CVs and the "inshore" data reporting mechanisms, the discussion below only is intended to justify increased observer coverage on CPs that currently only carry an observer for 30% of its fishing days.

- Observers (deployed on both CVs and CPs) undergo rigorous post cruise debriefings, where their sampling methods are assessed for consistency with observer program sampling policies and observer data are reviewed for errors and accuracy. Because observers are debriefed by NMFS in a consistent manner, observer collected data, in general, help to reporting consistencies for all vessels. Problems with observer data are addressed within NMFS in an efficient manner. NMFS Enforcement may audit WPRs for errors, but these activities are costly and are undertaken far less consistently that the observer debriefing process. Additionally, recourse for misreported data on WPRs is through enforcement actions. Occurrences of misreported WPR data could take considerable time to resolve.

- All CPs are required to provide computer hardware and communications devices for use by an observer to transmit data to NMFS in a timely manner. NMFS installs software which facilitates data entry, initial screening of the data for errors, and communicates with NMFS software at the observer program. For the most part, these data are available for use by inseason managers the day after data collection. In contrast, WPRs are reported on a weekly basis. Additionally, out of 19 CPs less than 125 feet that operated in 2005, 10 forwarded their WPRs to NMFS via fax or email. WPR information received by FAX or email must be keypunched into an electronic format for use by the catch accounting system, and there could be considerable lag time before this information is available to managers.

- Observers collect information on a finer scale than is available through the WPR reporting process. For example, vessels may fish in two or three separate reporting areas and aggregate production by week and area. In contrast, observers collect haul by haul data and report locations for each haul, and species composition of sampled hauls.

- Observer data is more consistently reported. In 2005, 30 WPRs had not been received by NMFS as of November 3. In contrast, observer data are consistently available when an observer is onboard.

- As NMFS manages species on an increasingly finer scale as a result of more complicated management programs recommended by the Council, NMFS becomes more reliant on accurate speciation of catch. For example, the Council and NMFS are considering separating management of dusky and dark rockfish, which are sometimes difficult to differentiate. While many fishermen are experts at species identification, they are rarely formally trained. Observers undergo a minimum of 120 hours of training with considerable time spent on species identification. Every observer is tested on their ability to identify fish, and their identifications are verified by NMFS staff during the debriefing process, and likely improves accuracy in terms of species identification.

- Observers sample for all species and this information is expanded to represent a proxy for total catch. In contrast, only retained and processed species are counted and reported on WPRs. In most cases, operators only visually estimate discards so the WPR based discard composition and may not be accurate.

To help illustrate why NMFS considers observer collected data to be a better determination of total catch, Table 4-9 compares species weights from observers, with species weights for WPRs for hook and line CPs fishing in the BSAI in 2004 (including CDQ). In all cases except one, observer collected weights are higher than WPR reported weights. Some of these observer collected weights are reported as actual weights from NMFS certified scales. Additionally, many CPs did not report some non-target species. These vessels may not have harvested these species; however, high abundance species commonly incidentally caught in these fisheries are unreported on WPRs, but reported by observers. NMFS cannot verify the accuracy of incidentally harvested species reported on WPRs. **For the reasons described above, NMFS continues to recommend placing all hook-and-line CPs and non-AFA trawl CPs in Tier 2 (100% coverage).**

Note that Table 4-9 provides only a point estimate for observer data, because the current catch accounting system does not provide a statistical estimator. NMFS has conducted some work (Volstad, et.al, 1996) to look at statistical estimators of catch based on observer data, but current information is not available.

Based upon the WPR, the system calculates the round weight of fish from reported fish products. Product weights are converted to whole fish weights by dividing the product weight by the "standard" product recovery rate for that species/product combination. This method does not take uncertainty into account for product weight, nor variation in product recovery rates, across operations, geographic area and season (which can significantly impact fish size and condition), etc. Back-casting "round weight equivalent" measures for final product reports is an imperfect science, at best. It is inappropriate to fault industry (which is *not* required to submit "pre-processed catch weights") for deviations between these estimates. None-the-less, it is not possible to identify whether the source of error is due to misreporting or calculating round weights using standard product recovery weights. In any case, differences between estimates based on observer data and WPRs is of concern to managers and this information is provided here.

Table 4-9 Comparison of observer estimates and vessel WPR estimates of species weights in the 2004 hook-and-line CP fishery in the BSAI

	Observer Estimate Reports		*WPR Estimates*		*Estimated Difference*	
Species	*MT*	*Processors*	*MT*	*Processors*	*MT*	*Processors*
Alaska Plaice	0	8	*	*	*	*
Atka Mackerel	35	15	13	6	23	9
Arrowtooth	1,262	29	780	28	482	1
Other Flatfish	133	29	55	14	78	15
Flathead Sole	543	29	357	26	186	3
Turbot	830	28	693	24	137	4
Northern Rockfish	31	23	18	13	13	10
Other	16,768	29	12,374	29	4,394	-
Pacific Cod	91,236	29	84,345	29	6,891	-
Pollock	4,710	29	2,705	29	2,005	-
Pacific Ocean Perch	4	16	0	4	3	12
Rougheye Rockfish	36	16	10	9	26	7
Other Rockfish	118	24	62	19	55	5
Rock Sole	32	29	15	16	16	13
Sablefish	117	22	141	18	(23)	4
Squid	*	*	*	*	*	*
Shortraker Rockfish	57	21	39	13	18	8
Yellowfish Sole	549	29	457	20	92	9
Total	116,461		102,065		14,396	

Source: NMFS
Note: * indicates confidentiality restrictions prevent NMFS from reporting data from less than three vessels.

Figure 4-1 through Figure 4-4 provide the total groundfish harvests of trawl and hook-and-line CPs, by vessel length and area, and also illustrate that in terms of the total volume of groundfish, the 125' dividing line is not necessarily meaningful. Many CPs <125' handle more groundfish than their larger counterparts. In these figures, exact vessel lengths are rounded to the nearest 40' and length outliers are hidden to preserve data confidentiality.

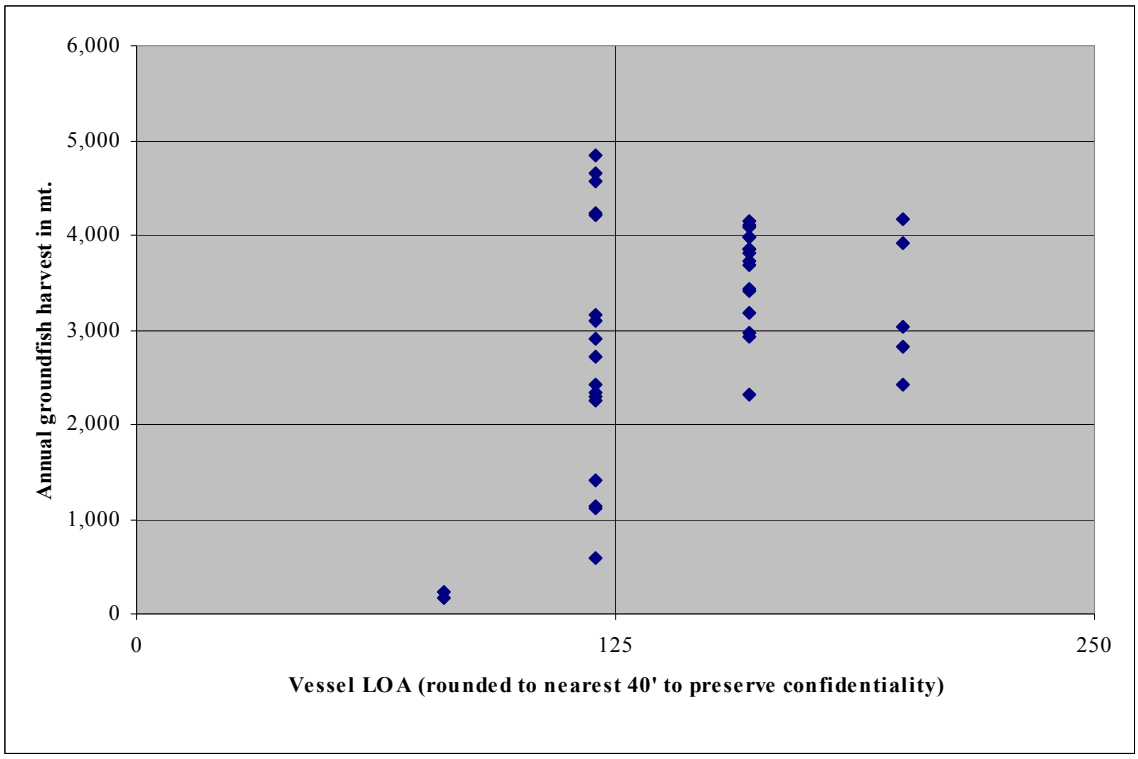

Figure 4-1 2004 groundfish catch by vessel length for hook-and-line CPs in the BSAI

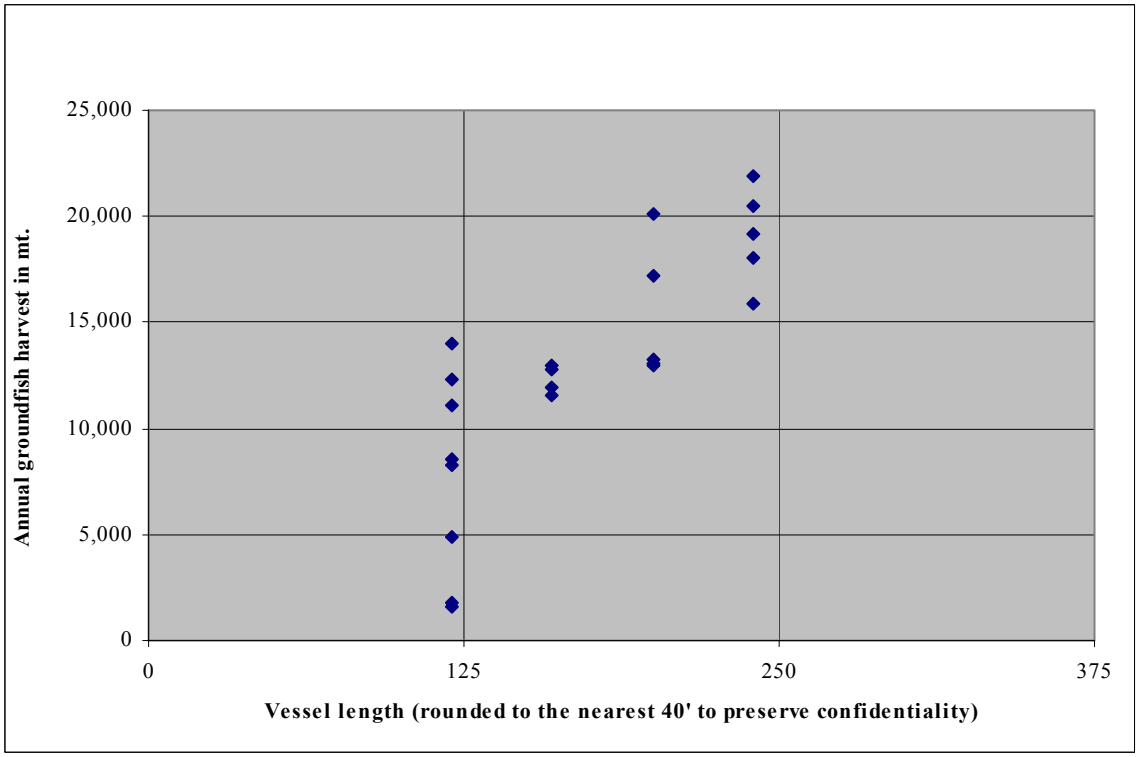

Figure 4-2 2004 groundfish catch by vessel length for non-AFA trawl CPs in the BSAI

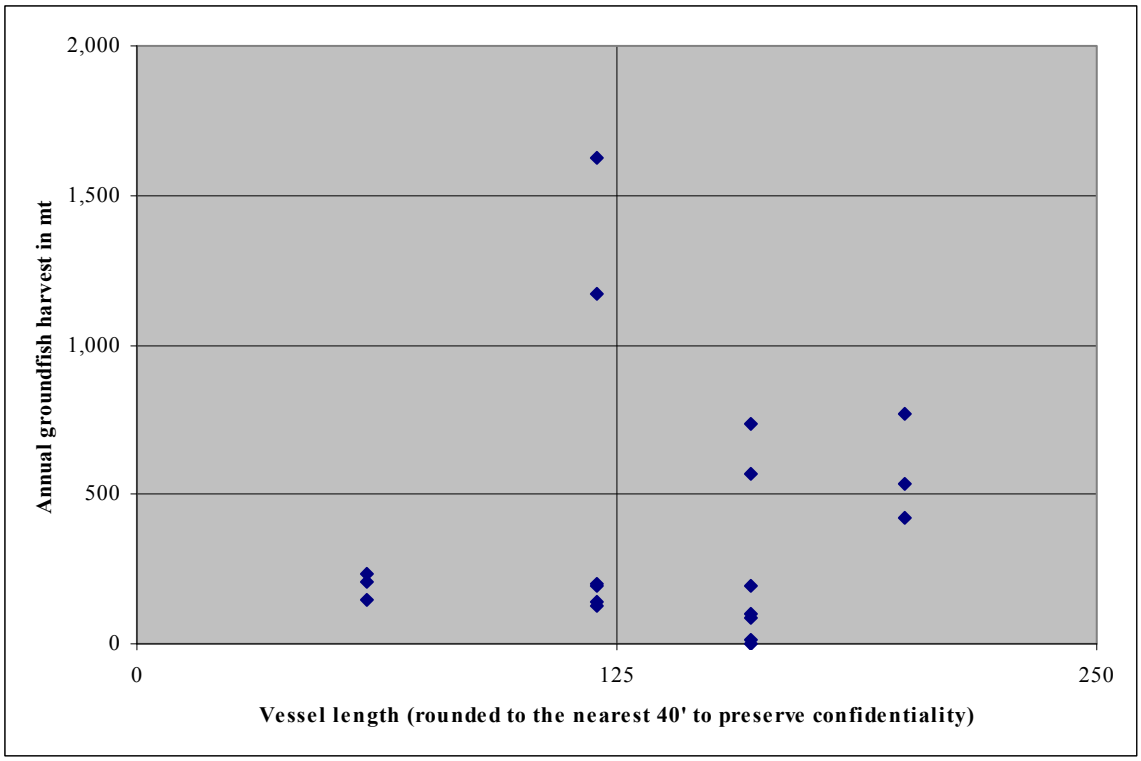

Figure 4-3 2004 groundfish catch by vessel length for hook-and-line CPs in the GOA

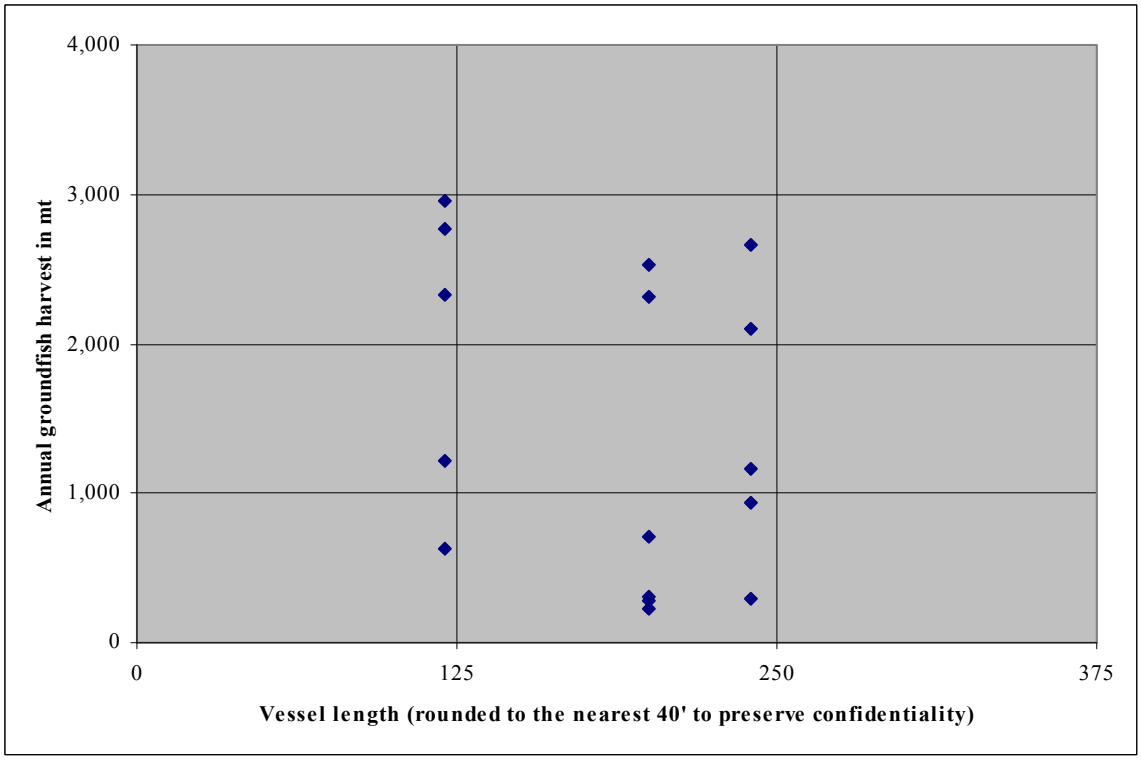

Figure 4-4 2004 groundfish catch by vessel length for trawl CPs in the GOA

In sum, recall that inclusion of a fishery/vessel class in the proposed new four-tier coverage system only applies to those fisheries that are included in a restructured alternative. In other words, the tier structure would first only apply if the Council chose Alternative 3, 4, or 5 as its final preferred alternative. In that case, the tier structure would still apply only to those fisheries that are included in the preferred alternative for a restructured program. If a fishery is not included, such vessels would remain in their existing coverage categories under the current pay-as-you-go regulations. **As stated previously, the Council selected Alternative 2 as its preferred alternative; the tier structure, therefore, does not apply to this proposed action.**

4.2.9 Description of and basis for Tier 3 coverage

Under all of the restructuring alternatives, all vessels and processors that are currently required to have 30% coverage would be included in the Tier 3 category under which they can expect to receive coverage on a regular basis and would be required to carry an observer when requested to do so by NMFS. However, for each individual vessel, the actual coverage received could range from zero to 100% depending on the coverage plan developed by NMFS for each individual fishery. Tier 3 fisheries would share several characteristics:

- *Observer data used for inseason management purposes*. The primary threshold between Tier 3 and Tier 4 fisheries is that Tier 3 fisheries are those in which observer data is necessary for inseason management of catch or bycatch quotas. Generally, these are the fisheries that currently have 30% coverage requirements. In these fisheries, observer data is used to monitor groundfish catch and discards, and PSC discards. But discard and PSC rates are aggregated across a large fleet, making 100% coverage unnecessary.

- *Vessels not operating under individual bycatch quotas.* In Tier 3 fisheries, vessels are not operating under individual bycatch quotas, meaning that bycatch data from observed vessels can be applied to unobserved vessels operating in the same time and area. Therefore, it is not necessary to obtain bycatch data from every vessel in order to generate bycatch estimates for the entire fishery.

- *If vessels are operating under individual catch quotas and monitoring is done onshore*. Even if vessels are operating under a system of individual vessel quotas, 100% coverage may not be necessary if the primary location for catch accounting is the shoreside processor rather than the vessel. AFA CVs and sablefish IFQ vessels are two examples of vessels that are operating in individual quota-based fisheries where the primary catch accounting is done onshore rather than at-sea. In both of these instances, vessels are subject to a 100% retention requirement for all species for which individual vessel quotas apply, to ensure that all fish harvested can be properly accounted for onshore.

How much coverage is necessary in Tier 3 fisheries

The question of how much coverage is necessary for conservation and management purposes is one of the most difficult questions to answer for North Pacific groundfish and halibut fisheries because observer data is used for a wide variety of conservation and management purposes. In fisheries where observers are deployed solely to collect one type of management data (such as the incidence of marine mammal or sea turtle bycatch in Atlantic and Gulf of Mexico fisheries) it may be possible to design a coverage plan for the fishery based on management decisions about the necessary level of accuracy and preciseness of the bycatch estimates. However, in the North Pacific groundfish fisheries, multiple science and management objectives overlay a complex array of different fisheries that are determined by target species, gear type,

and area. In addition, some management objectives such as bycatch management are subjective in nature in that bycatch limits are established as a matter of policy and are not driven by biological parameters. For this reason, it is beyond the scope of this analysis to determine what level of coverage is required in each Tier 3 fishery, or for Tier 3 fisheries overall. The annual process by which NMFS would make this determination is discussed in Section 4.3.

Rather than attempt to establish specific coverage levels for each Tier 3 fishery, this analysis starts with the current levels of coverage that are achieved under the status quo and assumes that if NMFS is provided with the flexibility to deploy observers when and where they are most needed, data quality could be improved over the status quo without an increase in the total amount of observer coverage days present in Tier 3 fisheries. Table 4-10 displays the current percentage of groundfish that is observed in each BSAI and GOA groundfish fishery and identifies some of the management purposes for which observer data is used. As shown in Table 4-10, in every fishery for which observers are currently deployed, data is used for a wide variety of purposes.

Table 4-10 Percentage of total catch that was observed (sampled for species composition) by gear type and fishery in 2001, 2000, and 1997

BSAI fisheries					Primary current uses of observer data									
		Percent of BLEND total catch observed			*Catch comp. and monitoring*	*Halibut PSC*	*Crab PSC*	*Salmon trawl bycatch*	*Seabird bycatch*	*Individual vessel catch monitoring*	*Stock assess-ment modeling*	*Other mgt. programs*	*Data analysis for proposed mgt. measures*	*Posting of vessel specific weekly bycatch rates*
Gear	***Target***	***2001***	***2000***	***1997***										
Hook-and-line	Pacific cod	52%	53%	66%	X	X			X	CDQ	X		X	X
	Sablefish	23%	25%	19%	X				X	CDQ	X		X	X
	Turbot	78%	65%	55%	X	X			X	CDQ	X		X	X
Pot	Pacific cod	28%	15%	24%	X						X		X	X
Trawl	Atka mackerel	72%	72%	71%	X	X	X			CDQ and SSL limits	X	VIP	X	X
	Pollock	76%	77%	63%	X	X	X	X		AFA, CDQ, SSL CH limits	X	VIP	X	X
	Pacific cod	38%	38%	65%	X	X	X	X		CDQ	X	VIP	X	X
	Flatfish[1]	65%	68%	52%	X	X	X	X		CDQ	X	VIP	X	X
	Rockfish	72%	89%	73%	X	X	X	X		CDQ	X	VIP	X	X
	Yellowfin sole	45%	49%	58%	X	X	X	X		CDQ	X	VIP	X	X
GOA fisheries														
Gear	***Target***	***Percent of BLEND total catch observed***												
Hook-and-line	Pacific cod	14%	6%	9%	X	X			X		X		X	X
	Rockfish	5%	3%	3%	X	X			X		X		X	X
	Sablefish	23%	22%	8%	X						X		X	X
Pot	Pacific cod	10%	11%	3%	X						X		X	X
Trawl	Pollock	18%	25%	32%	X	X		X			X	VIP	X	X
	Pacific cod	18%	12%	17%	X	X		X			X	VIP	X	X
	Deepwater flat	18%	28%	22%	X	X		X			X	VIP	X	X
	Flatfish[2]	19%	20%	20%	X	X		X			X	VIP	X	X
	Rockfish	39%	41%	48%	X	X		X			X	VIP	X	X
	Rex sole[3]	54%	40%	(4)	X	X		X			X	VIP	X	X

SOURCE: NMFS Alaska Region, June 2002 from BLEND and Observer databases

[1]Includes "other" flatfish, flathead sole, and rock sole
[2]Includes flathead sole target
[3]Includes arrowtooth target
[4]No comparable data in 1997

4.2.10 Description of and basis for Tier 4 coverage

The groundfish and halibut fisheries that are not in Tiers 1 through 3 would be categorized as Tier 4 fisheries under the restructuring alternatives: jig vessels, halibut vessels, and groundfish vessels <60'. These are primarily fisheries that are not currently required to carry observers under the present system. At the outset of the new program, coverage would be used primarily for special data needs and research rather than inseason management. NMFS could deploy observers on vessels when necessary to collect needed baseline data or to respond to specific data needs, but would not deploy observers on a regular basis to collect inseason management data. Tier 4 fisheries would share the following characteristics:

- *Observer data not used for inseason management.* In a variety of fisheries, observer data is not currently used for inseason management purposes and vessels are managed through the use of landings data provided by processors. Examples include the halibut IFQ fishery and the jig fishery.

- *Low volume of fish harvested.* In a variety of fisheries, the volume of groundfish harvested by each vessel is so low that coverage is more efficiently applied to vessels that harvest larger volumes. For example, it may take ten fixed gear vessels <60' to equal the daily volume of a single trawler in the 60'-125' vessel size class. Therefore, an observer operating on a fixed gear vessel <60' would only be able to sample 1/10th of the volume of groundfish as an observer operating on the larger trawl vessel. If necessary, volume thresholds could be established to ensure that only low volume vessels remain in Tier 4 and that small vessels that exceed certain catch tonnage thresholds could be assigned to Tier 3.

As NMFS and industry develop experience with deploying observers in Tier 4 fisheries that have not had coverage in the past, the dividing line between Tiers 3 and 4 will likely become less meaningful, and could be eliminated in the future.

4.2.11 Assignment of vessels to Tiers 3 and 4

In sum, the proposed classification of each fishery into the four tiers under Alternatives 3 – 5 is shown in Table 4-6 in this chapter. Note that while the tier classifications closely match the existing coverage requirements, there are a few instances where vessel and processor categories that currently have 100% coverage requirements are proposed to be included in Tier 3 rather than Tier 2. These are described in Section 4.2.8.

For purposes of analysis, this document places each fishery into one of four tiers for purposes of determining observer coverage and other requirements. However, as noted above, tier assignment recommendations are only relevant to Alternatives 3 – 5.[40] The information provided in this section was intended to assist the Council in making a decision about an appropriate dividing line between Tiers 3 and 4 under Alternatives 3 – 5. **Note, however, that the Council chose Alternative 2 as its preferred alternative at final action,** due to the inability to comprehensively estimate costs associated with the restructuring alternatives, current statutory limitations, and the need to prevent expiration of the current program at the end of 2007 (see Sections 1.2.1 and 2.8).

Tier 4 vessels, as currently described in this document, create several management and logistical challenges. These are described below:

[40]Note that while tier classification is discussed as a necessary element of all of the restructuring alternatives, it is not as relevant under Alternative 3, as all vessels operating in the GOA and all processors taking landings from the GOA (and all halibut vessels in the GOA and BSAI) would be included and pay the same ex-vessel value based fee.

Management Issues. The Council has not previously required observer coverage on vessels that are proposed to be assigned to Tier 4. However, the ability of NMFS to these vessels could be improved by deploying observers to collect catch and effort information. To account for catch, vessels with no observer coverage are currently assigned rates based on algorithms that attempt to match similar fishing behavior from observed vessels. However, vessels less than 60 feet are not able to travel to the same fishing areas as larger vessels, and their fishing behavior can be significantly different than the vessels used to calculate these catch rates. In some cases, catch rates from catcher processors and much larger vessels are used to determine catch rates for much smaller catcher vessels. Application of these rates to the smaller vessels may not be accurate, but it is the only option available without observer coverage. By placing observers on these smaller vessels and distributing observer resources to various spatial and temporal strata, managers could more accurately account for catch.

Most of the information gathered for management of halibut vessels and vessels less than 60 feet currently takes place at shoreside processors. While this may provide adequate catch accounting for target species and retained incidental catch species, discards are self reported for all vessels in these sectors. NMFS has no verifiable measure of accounting for these discards, and has no method for assessing the accuracy of its management decisions. Additionally, current self reporting requirements do not include information about vessel fishing behavior. Again, observer information from this fleet would provide information to help assess catch quantities.

Changes in market conditions may cause new or increased effort in small boat fisheries. For example, in 2004, a skate fishery emerged in the GOA. Much of the effort in this new fishery was from boats less than 60 feet. NMFS had no regulatory authority to place observers on these vessels, and the nature of the fishery was unknown. Managers were able to assess target catch on a limited basis, but had no ability to accurately account for discarded catch. Biological data collections were relegated to delivered catch. In the former case, NMFS deployed staff to collect this information.

Scientific Data Collection Issues. Observer collected data is routinely used by scientists in the stock assessment process. Biological data collected by observers at shoreside plants is one way to collect some of this information for vessels that are not observed at sea. However, this information is collected shoreside at a much larger resolution than if it was collected at sea. For example, otoliths can be collected by observers at sea and attributed an individual haul. Furthermore, haul specific information such as fishing set and retrieval positions, fishing depth, and effort are collected and entered into an electronic format. This information is otherwise not available to NMFS (paper logbooks are not required on vessels less than 60 ft.) By entering observer data into an electronic format, scientists are able to efficiently use larger data sets in the stock assessment process.

Logistical Issues. At the time the Council considered observer coverage levels in the initial years of the observer program, it determined that vessels less than 60 feet did not harvest groundfish in amounts that required independent catch verification through observer coverage. However, in many cases vessels <60' harvest groundfish amounts greater than vessels over 60 feet.

In addition, vessels <60' were perceived to present particular monitoring challenges because of their size. Prior to implementing coverage in this tier, there are a number of practical issues which would need to be addressed. These include insurance requirements, bunk space for an observer, safety, observer work space, and others. However, NMFS has deployed observers on many types and sizes of vessels extensively in other NMFS regions and these issues have largely been addressed. Additionally, a NMFS workshop was convened in 2003 which addressed observer deployment and safety issues on small boats for all regions of NMFS. A copy of the report generated from that workshop is available at:

http://www.st.nmfs.gov/st4/nop/workshops/NMFS_Small_Boats_Workshop_Summary_Report.pdf.

NMFS recognizes that this knowledge would need to be adapted to ensure workable plans for coverage in Alaska and is committed to working with industry to resolve these issues.

Cost Implications. All vessels in Tiers 3 and 4 are proposed to pay the same ex-vessel value based fee. Therefore, differences in costs for vessels in Tiers 3 and 4 would only involve indirect costs when they actually take an observer. These include costs associated with living and sampling space for an observer, housing and feeding an observer, increased insurance coverage, and potentially displacing crew members. The smaller the vessel, the more these indirect costs affect the vessel. Additionally, many of these vessels deliver catch to processors in remote areas. The costs of deploying observers to these areas can be significantly more than the cost of deploying observers to the larger ports such as Kodiak and Dutch Harbor. Managers must balance the benefits of deploying observers in these fisheries to the likely higher costs associated with these deployments. Currently, NMFS does not have sufficient information about fleet behavior to assess these tradeoffs.

Exploration of alternative break points for Tiers 3 and 4. In June 2005, the Council asked NMFS to explore alternative dividing lines between Tiers 3 and 4. Four possible approaches are as follows:

1. **Size threshold.** Establishing a different length break-point other than the 60' line that has been used since 1990 as the minimum length threshold for 30% coverage. In other words, the length dividing line between Tiers 3 and 4 could be shifted upwards or downwards.

2. **Productivity threshold.** Establishing a break-point based on productivity rather than vessel length. In other words, vessels with quarterly or annual harvests that remain below a certain threshold would be in Tier 4. Vessels above a certain productivity threshold would be in Tier 3 regardless of length.

3. **Area threshold.** Establishing a different length break-point depending on the area fished (GOA vs BSAI).

4. **Gear threshold.** Establishing different break points by gear type. For example, a lower length threshold could be established for trawlers, which have higher annual harvests than other gear types.

Figure 4-5 through Figure 4-14 display annual groundfish harvests by vessel length, with actual lengths rounded to the nearest 4' to preserve data confidentiality. An examination of the data presented in these figures suggests several trends. First, the annual groundfish catch of trawl CVs of all lengths exceeds that of hook-and-line, pot, and jig gear by many times in both the BSAI and GOA. Second, the lower size limit for trawl CVs appears to be 58'. It appears that most if not all trawlers under 60' are converted limit seiners that are at the 58' line. Based on these examinations of annual groundfish harvest by vessel length, it appears that the group of Tier 4 vessels that are most likely candidates for inclusion into Tier 3 are the 58' trawl catcher vessels. However, it should be emphasized that NMFS does not need to move

this group of vessels into Tier 3 in order to provide additional coverage on this fleet. Under the proposed tier classifications, this group of vessels could receive the same level of coverage in Tier 4 as they might in Tier 3. This depends on how NMFS chooses to distribute coverage among the various fisheries, understanding that under a set fee percentage, increased coverage on a specific fleet will result in lower coverage in other fisheries.

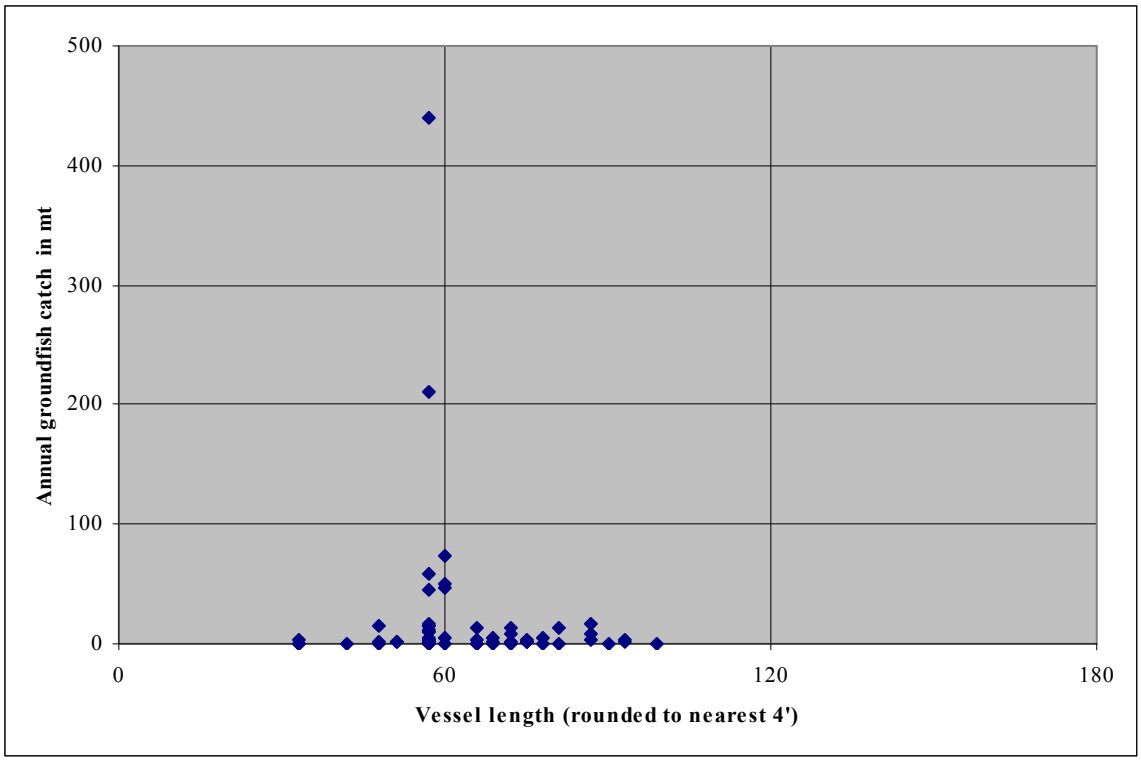

Figure 4-5 2004 groundfish catch by hook-and-line CVs in the BSAI

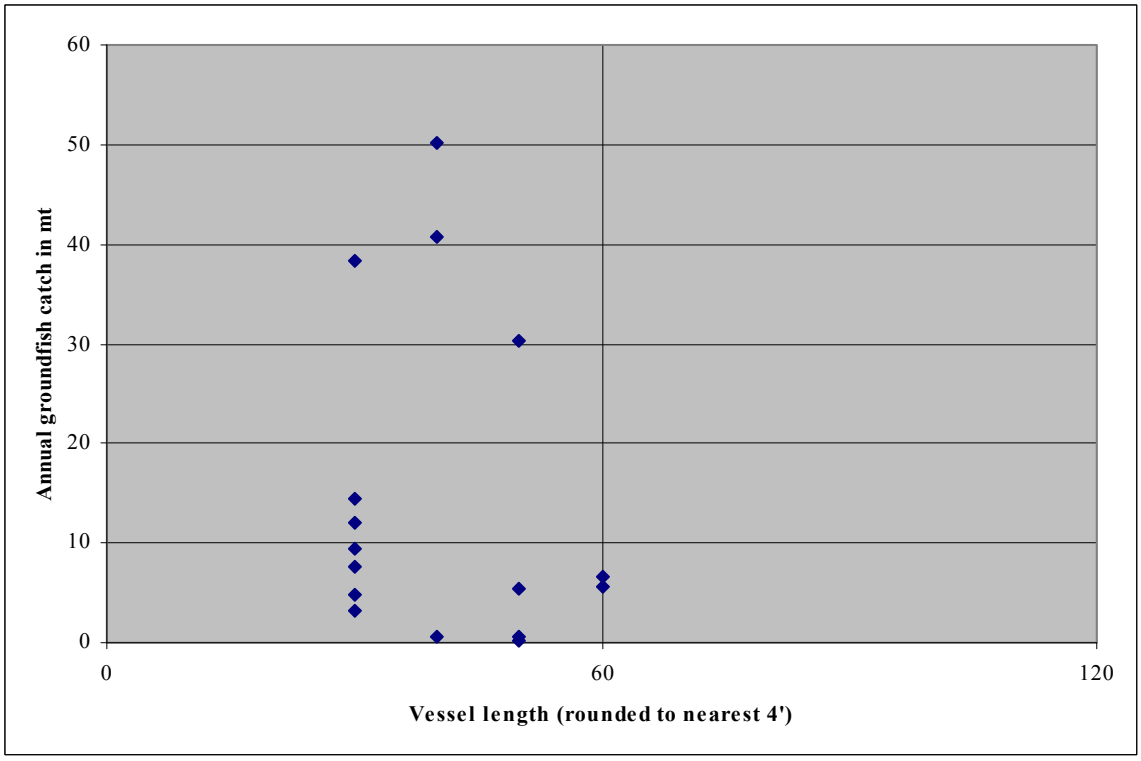

Figure 4-6 2004 groundfish catch by jig CVs in the BSAI

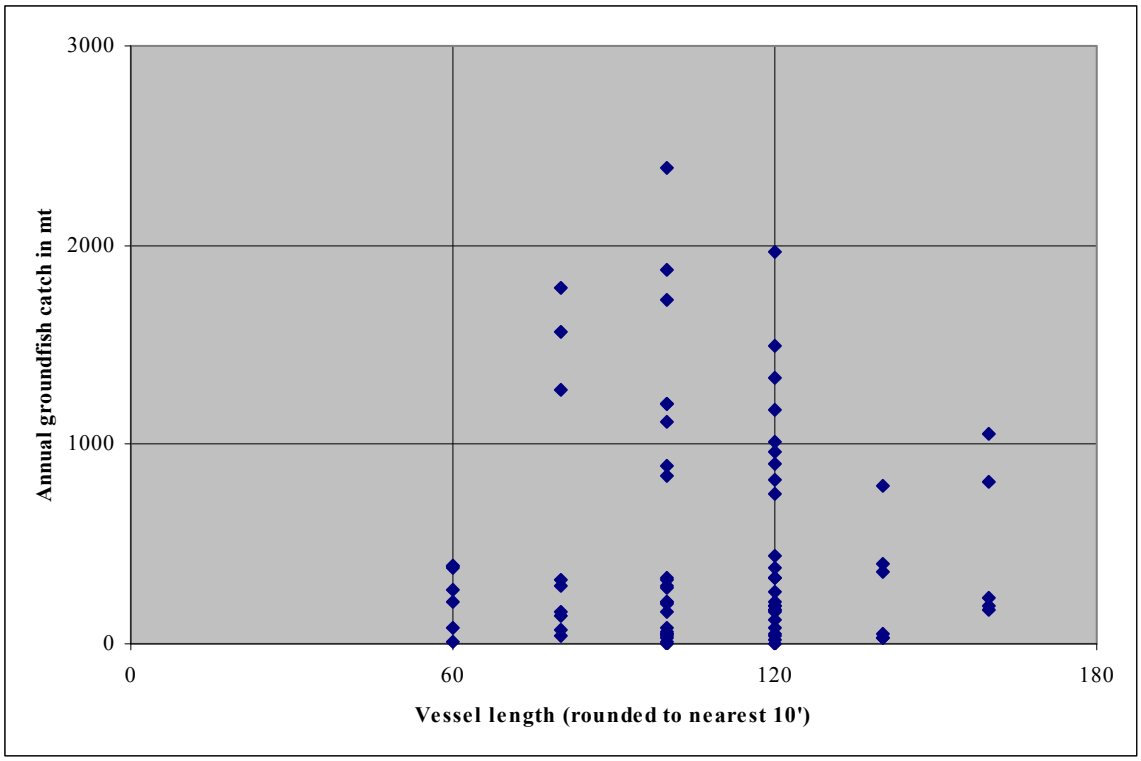

Figure 4-7 **2004 groundfish catch by vessel length for trawl CVs using bottom trawl gear in the BSAI**

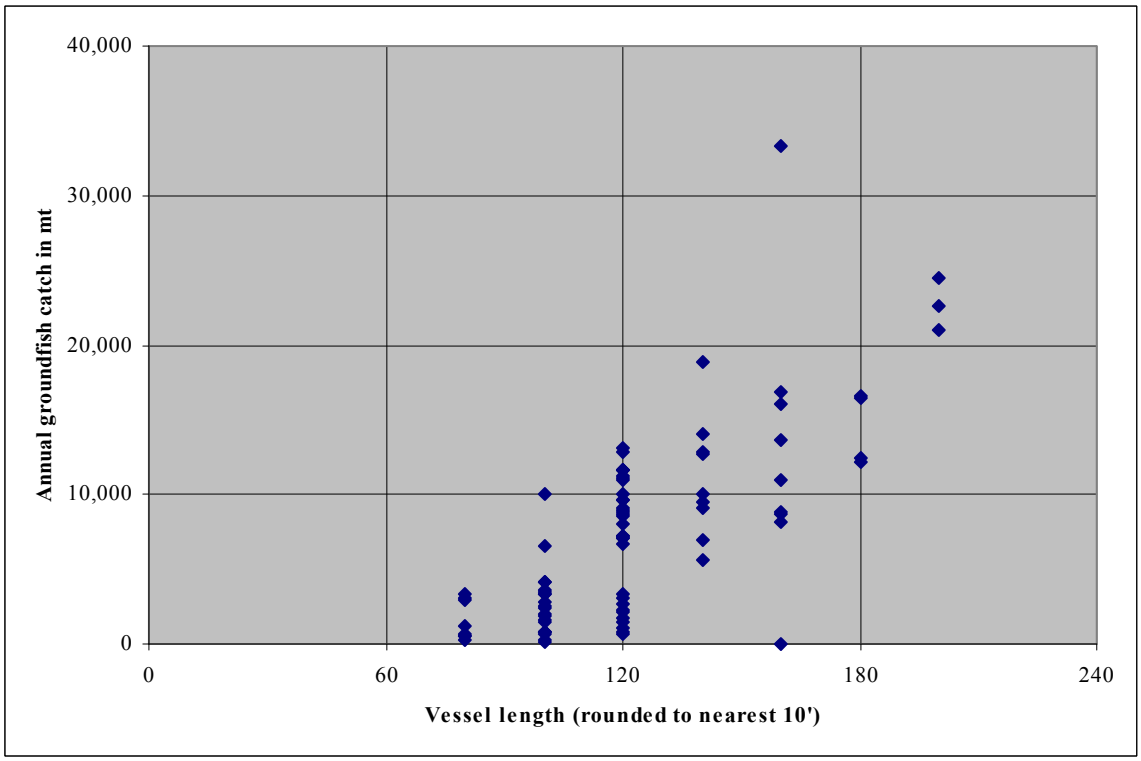

Figure 4-8 **2004 groundfish catch by vessel length by AFA trawl CVs using pelagic trawl gear in the BSAI**

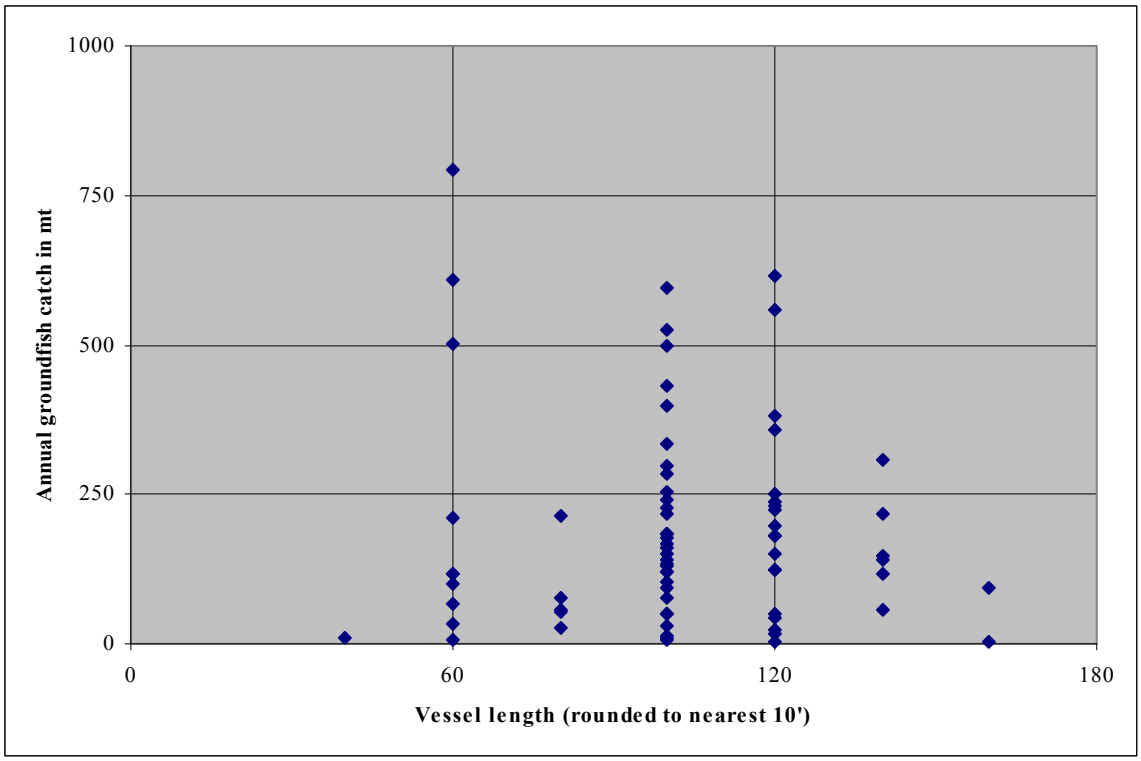

Figure 4-9 2004 groundfish catch by vessel length for pot CVs in the BSAI

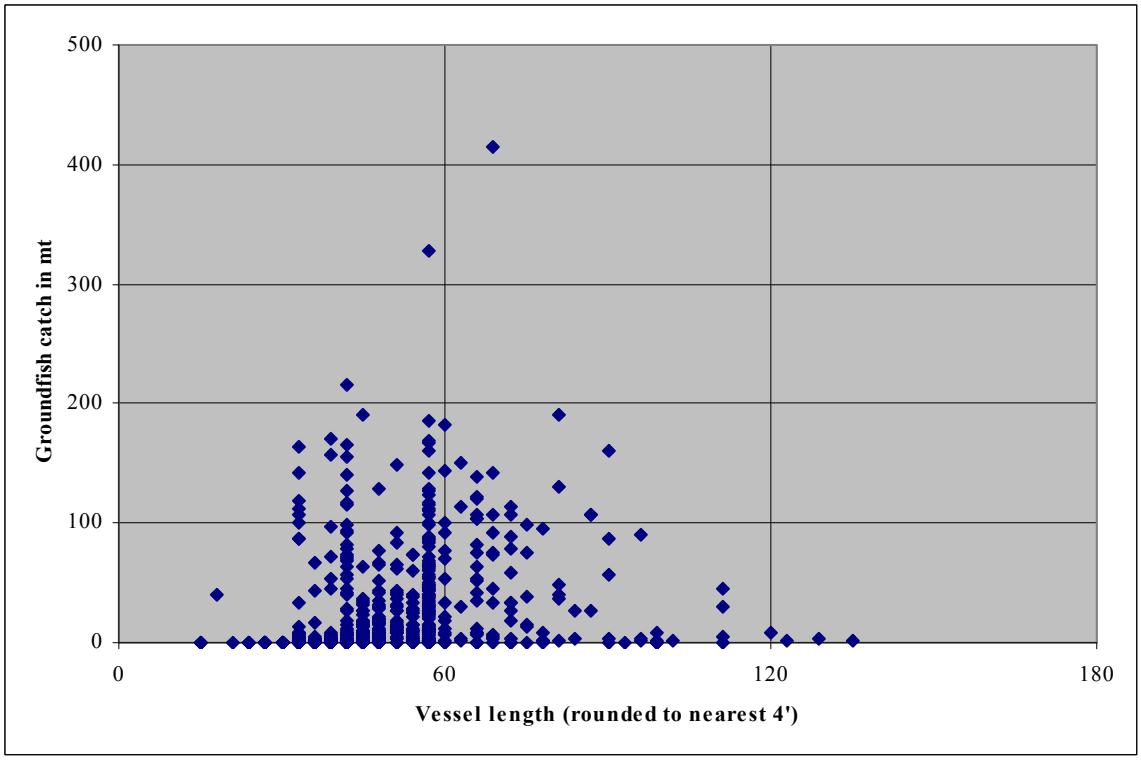

Figure 4-10 2004 groundfish catch by vessel length for hook-and-line CVs in the GOA

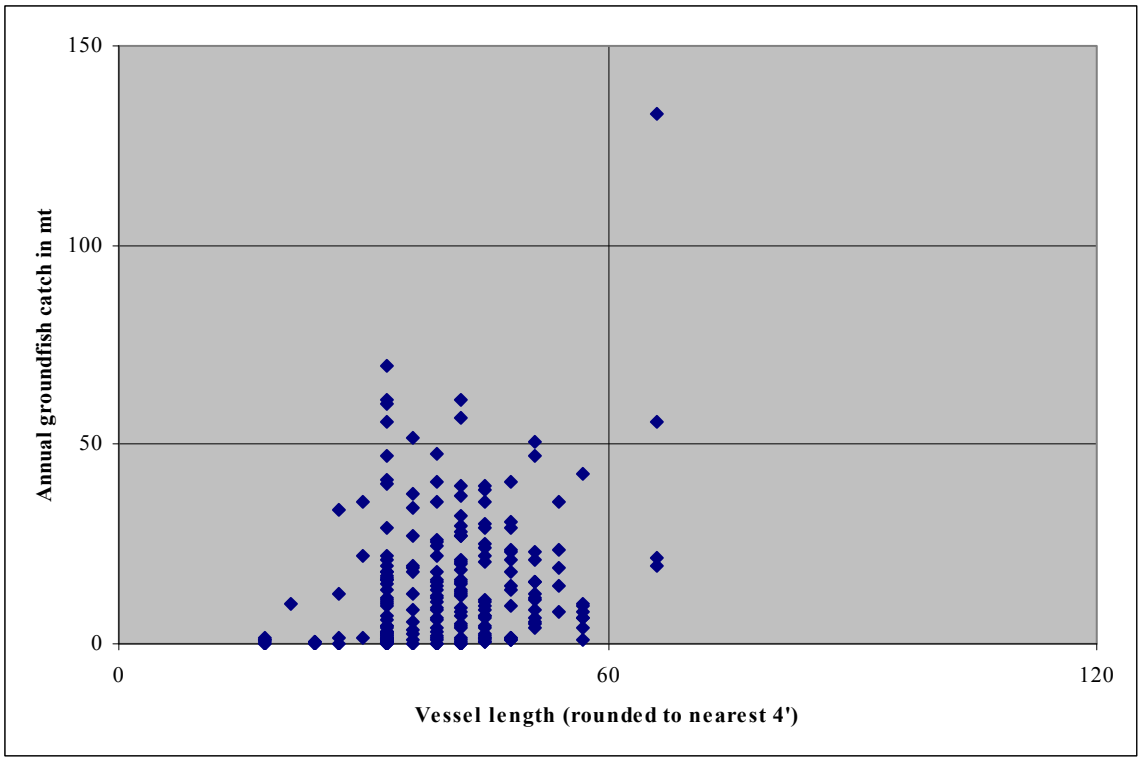

Figure 4-11 2004 groundfish catch by vessel length for jig CVs in the GOA

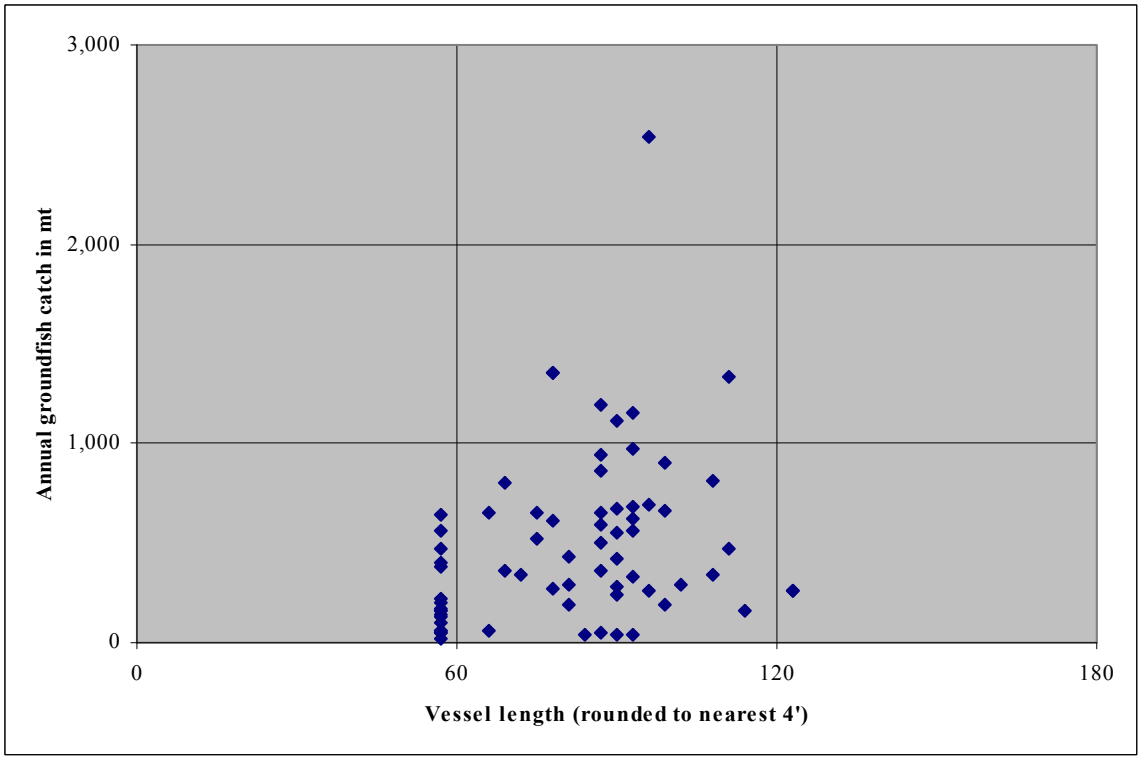

Figure 4-12 2004 groundfish catch by vessel length for trawl CVs using bottom trawl gear in the GOA

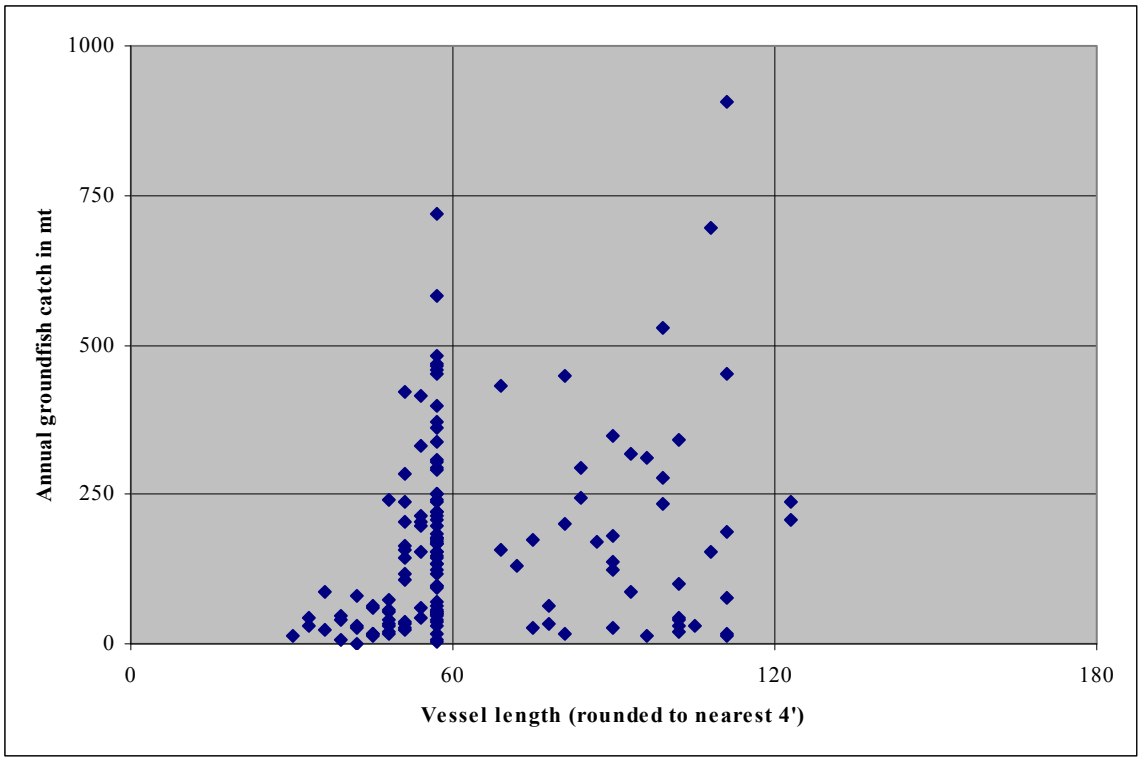

Figure 4-13 2004 groundfish catch by vessel length for pot CVs in the GOA

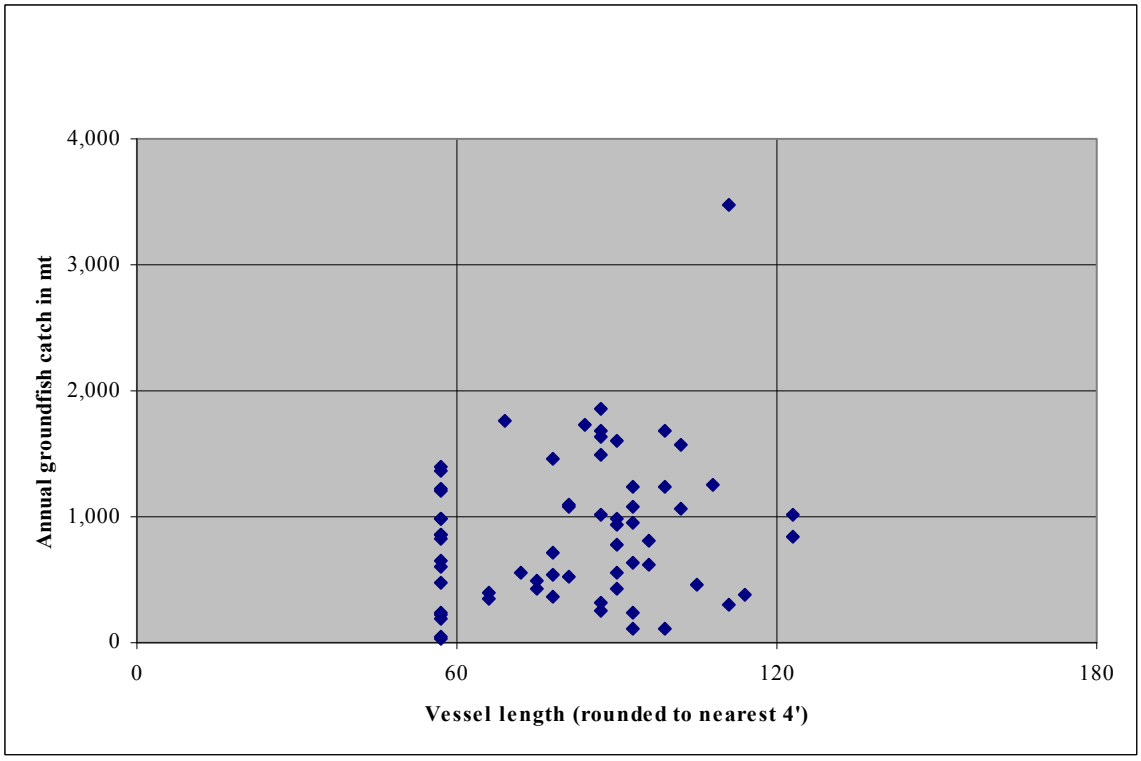

Figure 4-14 2004 groundfish catch by vessel length for trawl CVs using pelagic trawl gear in the GOA

NMFS recommendations. This document proposes maintaining a dividing line between Tiers 3 and 4 to reflect current coverage dividing lines. For the reasons described above, NMFS recommends continuing to place halibut vessels and vessels <60' length overall in Tier 4, and placing catcher vessels ≥60' that need less than 100% coverage in Tier 3.

There are several management and scientific reasons for extending observer coverage to halibut vessels and groundfish vessels less than 60 feet. However, lack of information on vessel behavior and activities, coupled with the cost and logistical issues described above make it impractical to allocate higher levels of observer coverage during the initial years of the restructured observer program. Rather, under the restructuring alternatives, NMFS intends to initially allocate lower levels of coverage to this fleet to gather additional information on fleet behavior and assess management and scientific data needs. NMFS contends that this approach would be the most efficient use of limited resources to maintain consistency during the initial years of the program. NMFS will work internally to identify and prioritize specific issues to be addressed and may consider some limited pilot studies to begin to gather information on Tier 4 vessels. However, as NMFS gains experience and gathers information on fisheries and vessels, it will reassess its scientific and management priorities. Vessels in this fleet could expect increasing levels of observer coverage in future years of the program.

4.3 Deployment of observers under the alternatives

Under Alternative 2 (and Alternative 1, until 12/31/07), observers would continue to be deployed under the existing system, in which vessels and processors contract directly with observer providers to meet coverage levels established in Federal regulation. Existing coverage requirements are provided in Table 1-2. Parties to the contract include the vessel and/or processor paying for the observer services and the observer company providing the observer. NMFS is not party to the contract, and has no control over when and where an observer is deployed.

Under Alternatives 3 – 5 and the tier system, coverage requirements would be defined in regulation for only Tiers 1 and 2. Vessels in Tiers 3 and 4 would be required by regulation to carry an observer when notified by NMFS. As fisheries evolve and data, information, and monitoring needs increase or decrease, fisheries could change tiers, by Council action and subsequent rulemaking. The impetus for these changes would likely be driven by recommendations from NMFS to meet changing information needs or by Council action to implement monitoring components for future management programs. Furthermore, the analysis informing this action describes the monitoring and information characteristics for each tier. As fisheries evolve, the Council may determine a particular fishery best fits within the description of another tier, and recommend a change to that tier.

The information NMFS would need from industry to support coverage decisions would be specified in regulation. These information needs would likely be specific to tier level. For example, the information needed to make active deployment decisions for a small catcher vessel operating in the GOA may be different than an AFA catcher processor. For catcher vessels, NMFS may need real time information on fishing locations and target species to make coverage decisions. For large catcher processors, NMFS may need advance notice of fishing plans and intended port calls so coverage can be planned and coordinated.

Proposed information needs for each tier are not specified here. However, the more specific the information provided by the industry, the more NMFS would be able to control costs. For Tiers 1 and 2, vessels would carry observers at all times, and information on fleet behavior would be needed only to support and enforce regular observer assignments. However, a wide range of observer coverage levels could be expected for Tiers 3 and 4 vessels. Vessels would not expect to carry observers at all times, and NMFS would incorporate a framework for making regular coverage decisions. Information requirements

would be designed to support and enforce this framework, and could be slightly different than requirements for Tier 1 and 2 vessels.

In June 2005, NMFS proposed to the Council a framework for deploying observers in all tiers under the restructuring alternatives. NMFS intended this proposal to generate comment and discussion from the industry. During that meeting, NMFS also proposed a meeting or series of meetings between NMFS staff, industry, and observer providers. The purpose of the meeting would be to discuss: 1) appropriate information requirements, and 2) efficient contracting modules (see Section 4.8). NMFS intends to meet with industry prior to these information requirements being finalized and would draft an observer coverage and contracting model as a basis for discussion. The information gained from this meeting would be reported to the Council and used by NMFS to implement a restructured observer program.

Observer coverage for fisheries placed in Tiers 1 and 2 would be defined in regulation. The universe of vessels and shoreside and stationary floating processors (processors) in Tiers 1 and 2 is clearly defined and easily identifiable. Vessels and processors would work with NMFS or its contractor(s) (agent) to facilitate observer deployment logistics. NMFS or its agent would deploy an observer on a particular vessel based on that observer's skill level. The vessel would be required to carry the observer assigned to that vessel, which could include NMFS staff. Processors would be required to provide room and board for assigned observers. The information NMFS would need from industry to plan for observer coverage would be defined in regulations.

4.4 Direct and indirect costs of observer coverage under the alternatives

4.4.1 Cost estimates under the status quo program (Alternatives 1[41] and 2)

Under the existing observer program, vessels required to carry observers must contract directly with NMFS-certified observer providers to obtain their coverage. Based on information provided by observer providers, and a salary range for observers that approximates the 2003 unionized salary rate, the total cost per observer day, under Alternative 2 (and temporarily Alternative 1), is estimated at $355. This includes a $315/day average rate (including Level 1 and Level 2 observers); an estimate of $25/day for airfare, possibly hotel, and other incidental expenses passed on to industry by observer providers; and $15/day for meals, a direct expense to vessels. Industry has indicated that they sometimes pay more than this for an observer. These costs vary on a case-by-case basis depending on duration of observer coverage and observer logistics. A salary increase for observers of approximately $5/day occurred in 2002, and again in 2003, under the current three-year contracts negotiated between the observers' union and each of several observer providers. The cost per observer day also increased in 2002, due to increased insurance costs for observer providers. NMFS assumes that these costs are passed on to industry by the observer providers.

Observer providers and industry have highlighted circumstances in which the average daily estimated cost of $355/day (used for this analysis) is exceeded. In some short duration fisheries that operate from remote ports, observer costs may greatly exceed the $355/day average. Some of the factors that tend to increase coverage costs may be unique to the current service delivery model, while others may continue to affect the cost of coverage under a restructured program of direct Federal contracting. Some of the factors that currently increase coverage costs for certain vessels and fisheries under the status quo include:

- *Operation out of remote ports with high transportation costs.* Observer costs generally factor in airfare to major fishing ports, such as Kodiak and Dutch Harbor, which receive regular air service

[41] Alternative 1and Alternative 2 have the same cost structure only until December 31, 2007, at which time Alternative 1 observer coverage costs go to zero.

from Anchorage. When vessel operators or processors wish to obtain coverage in more remote ports or rural locations that require chartered air service, transportation costs can greatly increase.

- *Short-term "pulse" fisheries*. When vessel operators wish to obtain coverage for short-term fisheries, the costs of coverage may increase, because observer providers do not have the time to rotate observers through a pool of 30% coverage boats. In these instances, a vessel operator may be forced to pay the entire transportation cost for the observer when those costs cannot be shared with a pool of other vessels operating in the same fishery, due to the shortness of the opening.

- *Small-scale fisheries with few participants*. The fewer the number of participants in a particular fishery where observers are deployed on vessels less than 100% of the time, the more difficult it will be for observer providers to develop cost-effective methods of rotating observers between vessels. At the extreme, a single vessel fishing alone out of a remote port will realize the highest coverage costs, because there are no other vessels with whom coverage costs can be shared.

- *Fishery disruptions, changing plans, and lack of advance planning.* Observer providers are often able to contain costs to industry by carefully managing the number of observers they have deployed at any given moment, to minimize the number of observers who are on salary in Alaska, but not deployed on vessels. This requires careful coordination between observer providers and the fishing industry so that observer providers can anticipate when and where observers will be needed. However, the nature of the fishing industry is such that vessel operators cannot always anticipate when and where they will need coverage in the future. Adverse weather, breakdowns, changing markets, and unexpected fishery closures can all force fishermen to change plans at the last minute. Fishermen who need observer coverage that they did not anticipate often find that the cost of such last-minute coverage can greatly exceed the average daily rates, because an observer must be found and at times transported from a remote location.

Anecdotal information from observer providers suggests that when the above circumstances occur, it is not uncommon to see coverage costs in the $500 to $600 per day range, and potentially as high as double the $355/day average rate used in this analysis.[42] While this is sometimes true for all vessels, these higher daily costs are most often faced by small-scale GOA fishermen who operate in short-term openings and out of more remote fishing ports. The large CP fleet operating out of the BSAI tends to operate in longer-term fisheries and generally operates out of Dutch Harbor, where observer providers are better able to avoid the logistical and travel costs that increase costs in smaller more remote fisheries.

To some extent, these examples of higher coverage costs are a feature of the current "pay-as-you-go" coverage system, in which all individual vessels with coverage requirements must obtain coverage for specified periods of time. This is because the current system provides no flexibility for observer providers to move coverage around in a more efficient manner to cover the overall fishery.

By contrast, under the system of direct Federal contracting under Alternatives 3 - 5, observer providers would have increased flexibility to manage coverage in a cost-effective manner. For example, under a future contract module, an observer provider might be responsible for providing a certain level of coverage for an entire fleet, fishing in a particular area at a particular time, but would not be required to achieve a certain level of coverage on every individual vessel. Therefore, observers could be deployed and rotated in the manner that achieves the greatest level of fleet-wide coverage, rather than to meet specific coverage level requirements for each individual vessel. Some vessels might receive high levels of coverage and others no coverage at all under a sampling plan designed to maximize coverage fleet-wide, rather than on each individual vessel.

[42]Michael Lake, Alaskan Observers, pers. comm. August 2005.

Nevertheless, the increased costs associated with small scale and short-term fisheries in remote locations cannot be entirely mitigated through a more flexible contracting model simply because the efficiencies of scale are not present as they are in the large-scale Tier 1 and Tier 2 fisheries in the BSAI. Therefore, NMFS anticipates that some contract modules (under a restructured program) to provide coverage in more remote small scale fisheries will tend to have higher daily coverage costs. However, the extent to which these coverage costs will increase cannot be estimated until contract modules are better defined and observer providers undertake the bid process.

Indirect costs to industry under Alternatives 1 and 2 include the following: (1) increased operating costs that result from the inconvenience of accommodating an observer, and (2) foregone catch, production, and revenue resulting either from the loss of a berth for crew, or from lost fishing time associated with transferring an observer onto and off of the vessel. These indirect costs are not expected to vary between any of the alternatives, except to the extent that coverage levels would vary under the alternatives.

Table 4-11 and Table 4-12 provide a summary of the 2000 - 2003 average annual coverage days, estimated observer costs, ex-vessel value of groundfish landings, and average observer costs as a percentage of ex-vessel value for each vessel or processor type and management area. These tables represent the analysts' best estimates of observer costs under the existing program at this time.

In the GOA, the estimated costs of observer coverage as a percentage of ex-vessel value generally range between 1% and 2% for catcher vessels, which harvest the majority of groundfish. Non-AFA trawl CVs had the highest average observer cost for CVs at 2.34%, over the four-year period, while pot CPs had the highest overall cost for CPs at 2.25%, for the same period. In the BSAI, the estimated costs of coverage as a percentage of ex-vessel value are higher for some vessel classes, averaging over 4% for hook-and-line, and pot CPs, and as high as 8% in 2000 for hook-and-line CVs.

Table 4-11 GOA average annual number of observer days, annual coverage cost, and percentage of groundfish ex-vessel value, 2000-2003

Sector	Vessel class	Observer days				Coverage cost (in millions)				Coverage cost as % of groundfish ex-vessel value				
		2000	2001	2002	2003	2000	2001	2002	2003	2000	2001	2002	2003	Average
CP	Hook-and-line CP <125'	337	328	364	287	$0.12	$0.12	$0.13	$0.10	0.66%	0.76%	0.76%	0.65%	**0.71%**
	Hook-and-line CP ≥125'	162	125	258	334	$0.06	$0.04	$0.09	$0.12	0.98%	1.13%	1.22%	1.16%	**1.13%**
	Pot CP	89	74	64	19	$0.03	$0.03	$0.02	$0.01	2.23%	1.59%	3.44%	4.50%	**2.25%**
	Trawl CP <125'	165	186	191	264	$0.06	$0.07	$0.07	$0.09	1.69%	1.79%	2.09%	2.32%	**1.98%**
	Trawl CP ≥125'	419	341	382	499	$0.15	$0.12	$0.14	$0.18	1.24%	1.31%	1.19%	1.48%	**1.31%**
CP Total		1,172	1,054	1,260	1,402	$0.42	$0.37	$0.45	$0.50	1.02%	1.11%	1.12%	1.19%	**1.11%**
CV	AFA Trawl ≥125'	8		13	4	$0.00		$0.00	$0.00	2.54%		2.36%	0.80%	**1.82%**
	AFA Trawl 60'-124'	740	689	572	556	$0.26	$0.24	$0.20	$0.20	1.72%	2.11%	2.40%	2.44%	**2.09%**
	Hook-and-line ≥60'	622	546	464	559	$0.22	$0.19	$0.16	$0.20	1.13%	1.24%	1.11%	0.96%	**1.10%**
	Non-AFA Trawl ≥60'	848	976	847	825	$0.30	$0.35	$0.30	$0.29	1.95%	2.27%	2.89%	2.47%	**2.34%**
	Pot ≥60'	393	172	167	165	$0.14	$0.06	$0.06	$0.06	1.28%	1.96%	1.59%	1.24%	**1.42%**
CV Total		2,612	2,382	2,063	2,109	$0.93	$0.85	$0.73	$0.75	1.51%	1.85%	1.95%	1.65%	**1.71%**
Processors	AFA inshore	158	126	97	89	$0.06	$0.04	$0.03	$0.03	1.53%	1.48%	2.31%	1.99%	**1.71%**
	Aleut/Alaska Penn/Other BS	74	0	40	0	$0.03	$0.00	$0.01	$0.00	15.37%	0.04%	2.89%	0.00%	**4.42%**
	Floater	106	3	1	2	$0.04	$0.00	$0.00	$0.00	1.26%	0.61%	0.08%	0.24%	**1.08%**
	Kodiak	1,698	1,674	1,306	1,289	$0.60	$0.59	$0.46	$0.46	0.90%	1.14%	1.10%	0.94%	**1.01%**
	Mothership		6	12	3		$0.00	$0.00	$0.00	0.00%	27.13%	18.87%	6.55%	**15.48%**
	Southcentral	226	85	61	43	$0.08	$0.03	$0.02	$0.02	0.33%	0.16%	0.12%	0.06%	**0.18%**
	Southeast	0	0	0	0	$0.00	$0.00	$0.00	$0.00	0.00%	0.00%	0.00%	0.00%	**0.00%**
Processors Total		2,262	1,893	1,516	1,426	$0.80	$0.67	$0.54	$0.51	0.67%	0.73%	0.67%	0.52%	**0.65%**
GOA Total		6,047	5,329	4,839	4,938	$2.15	$1.89	$1.72	$1.75	0.96%	1.10%	1.09%	0.95%	**1.02%**
BSAI and GOA Total		36,579	36,985	35,272	37,047	$12.99	$13.13	$12.52	$13.15	1.60%	1.72%	1.56%	1.78%	**1.66%**

[1]Based on an estimated daily average cost of $355/day for 2000-2003 which includes estimated travel costs of $25/day and meal costs of $15/day.

Data sources: NMFS groundfish observer program data, NMFS Alaska Region BLEND data, ADF&G fish ticket data, ADF&G Commercial Operators Annual Reports (COAR), and NMFS Weekly Production Reports.

Table 4-12 BSAI average annual number of observer days, annual coverage cost, and percentage of groundfish ex-vessel value, 2000-2003

Sector	Vessel class	Observer days				Coverage cost (in millions)				Coverage cost as % of groundfish ex-vessel value				
		2000	2001	2002	2003	2000	2001	2002	2003	2000	2001	2002	2003	Average
CP	AFA CP ≥125'	5,222	6,203	5,532	5,749	$1.85	$2.20	$1.96	$2.04	1.51%	1.60%	1.33%	1.66%	**1.52%**
	Hook-and-line CP <125'	1,578	1,417	1,404	1,563	$0.56	$0.50	$0.50	$0.55	4.11%	4.18%	4.83%	3.86%	**4.20%**
	Hook-and-line CP ≥125'	6,523	7,024	6,437	7,513	$2.32	$2.49	$2.29	$2.67	3.92%	4.56%	4.76%	4.51%	**4.42%**
	Pot CP	153	244	156	100	$0.05	$0.09	$0.06	$0.04	3.17%	4.96%	5.64%	3.61%	**4.27%**
	Trawl CP <125'	698	584	620	656	$0.25	$0.21	$0.22	$0.23	2.26%	2.96%	2.16%	2.30%	**2.37%**
	Trawl CP ≥125'	4,135	3,783	4,154	4,072	$1.47	$1.34	$1.47	$1.45	2.87%	2.34%	2.81%	2.82%	**2.70%**
CP Total		18,309	19,256	18,304	19,652	$6.50	$6.84	$6.50	$6.98	2.51%	2.53%	2.41%	2.70%	**2.54%**
CV	AFA Trawl ≥125'	4,264	3,768	3,773	4,099	$1.51	$1.34	$1.34	$1.46	1.89%	1.62%	1.49%	1.95%	**1.72%**
	AFA Trawl 60'-124'	2,585	2,563	2,466	2,634	$0.92	$0.91	$0.88	$0.94	0.98%	1.09%	0.85%	1.21%	**1.02%**
	Hook-and-line ≥60'	301	264	200	138	$0.11	$0.09	$0.07	$0.05	8.67%	7.70%	4.49%	4.10%	**6.13%**
	Non-AFA Trawl ≥60'	86	51	95	120	$0.03	$0.02	$0.03	$0.04	1.99%	4.06%	5.57%	3.24%	**3.20%**
	Pot ≥60'	780	785	812	1,054	$0.28	$0.28	$0.29	$0.37	2.30%	3.15%	3.80%	2.65%	**2.86%**
CV Total		8,015	7,432	7,346	8,045	$2.85	$2.64	$2.61	$2.86	1.51%	1.50%	1.29%	1.69%	**1.49%**
Processors	AFA inshore	2,276	2,686	2,640	2,528	$0.81	$0.95	$0.94	$0.90	0.55%	0.66%	0.60%	0.66%	**0.62%**
	Floater	598	705	613	88	$0.21	$0.25	$0.22	$0.03	4.72%	4.97%	2.89%	0.38%	**2.83%**
	Kodiak	442	223	154	178	$0.16	$0.08	$0.05	$0.06	1.57%	2.11%	1.10%	0.78%	**1.32%**
	Mothership	184	299	349	405	$0.07	$0.11	$0.12	$0.14	1.72%	2.03%	2.14%	2.49%	**2.13%**
	Aleut/AP/Other BS	934	1,139	1,088	1,256	$0.33	$0.40	$0.39	$0.45	1.34%	1.81%	1.07%	2.80%	**1.58%**
Processors Total		4,434	5,052	4,845	4,455	$1.57	$1.79	$1.72	$1.58	0.83%	0.99%	0.82%	0.91%	**0.89%**
BSAI Total		30,759	31,740	30,494	32,152	$10.92	$11.27	$10.83	$11.41	1.72%	1.80%	1.59%	1.90%	**1.74%**
BSAI and GOA Total		36,579	36,985	35,272	37,047	$12.99	$13.13	$12.52	$13.15	1.60%	1.72%	1.56%	1.78%	**1.66%**

[1]Based on an estimated daily average cost of $355/day for 2000-2003 which includes estimated travel costs of $25/day and meal costs of $15/day.

Note: Due to the limits of the source data this table does not distinguish between CDQ and non-CDQ fishing. Because some CDQ fisheries have higher coverage requirements than their non-CDQ counterparts, this will tend to increase cost estimates for those fisheries. This effect is greatest in the CP hook-and-line fishery.

Data sources: NMFS groundfish observer program data, NMFS Alaska Region BLEND data, ADF&G fish ticket data, ADF&G Commercial Operators Annual Reports (COAR), and NMFS Weekly Production Reports. Flatfish prides are based on a weighted-average flatfish price. The price is the total value of all flatfish from fish tickets divided by the total round weight of all flatfish from the blend. Because actual prices for specific species depend on a number of factors such as the time of year, area, specific species, and product forms produced, revenues on specific vessels may vary greatly from the average revenues estimated by NMFS.

4.4.2 Basis for observer coverage cost estimates and fee percentage endpoints under Alternatives 3 - 5

Under the proposed restructuring alternatives, coverage costs to individual vessels and processors will take one of two forms: (1) an ex-vessel value fee on landings (proposed under Alternatives 3 - 5); or (2) a daily observer fee based on the number of fishing days (proposed only under Alternative 5 for vessels in Tiers 1 and 2). While the costs to individual vessels would vary depending on whether they are subject to an ex-vessel value fee or a daily observer fee, in both cases, the overall costs to the fleet are dependent on the daily cost of contracting for observer coverage.

In Tier 1 and Tier 2 fisheries that are proposed to be subject to a daily observer fee (under Alternative 5), the daily fee would be based on the average daily cost of contracting for observer coverage. This daily fee could be adjusted upwards if fee revenues are used for any purpose other than direct coverage costs (i.e. equipment or overhead costs), or downwards if Federal funds become available to partially or fully subsidize the costs of coverage in Tier 1 and Tier 2 fisheries.

In Tier 3 and Tier 4 fisheries that are proposed to be subject to an ex-vessel value fee (under Alternatives 3, 4, or 5), the fee percentage would be determined by three factors: (1) the desired level of coverage, (2) the daily cost of observer coverage, and (3) the total ex-vessel revenues of the affected fleet. Again, the ex-vessel value fee could be adjusted upwards if fee revenues are used for any purpose other than direct coverage costs (i.e. equipment or overhead costs), or downwards if Federal funds become available to partially or fully subsidize the costs of coverage in Tier 3 and Tier 4 fisheries. **Note, however, that the cost estimates in this analysis assume that the fee proceeds will only be used to pay for the direct cost of observer coverage and implementation costs would be paid by Federal tax payers.**

Thus, under Alternatives 3 - 5, the direct costs to vessels for observer coverage include: (1) the ex-vessel fee percentage or daily observer fee, (2) an estimated $15/day for meals, and (3) increased insurance costs faced by vessels required to carry observers.

Indirect costs to industry, include the following: (1) increased operating costs that result from the inconvenience of accommodating an observer, and (2) foregone catch, production, and revenue resulting either from the loss of a berth for crew or from lost fishing time associated with transferring an observer onto and off of the vessel. These indirect costs are not expected to vary between the alternatives, except to the extent that coverage levels would vary under the alternatives.

4.4.3 Estimating the daily costs of coverage under Alternatives 3 - 5

Because the SCA would apply to any form of direct Federal contracting for observer services, a great deal of concern has been raised about the extent to which Federal contracts for observer coverage under the SCA would increase the coverage costs in the North Pacific. These concerns are based on two issues:

- Whether a prevailing wage established under the SCA would increase observer salaries relative to the no action alternative;

- Whether a prevailing wage established under the SCA would include a requirement that observers be paid an hourly wage, plus overtime under the requirements of the FLSA.

Unfortunately, neither of those two issues can be completely resolved at this point, because both questions can only be answered by the Department of Labor (DOL), not NMFS, and the DOL is unlikely to make any wage determinations specific to observers in the North Pacific fisheries until an actual coverage contract is submitted to the DOL for review. With respect to the determination of a prevailing

wage, the DOL guidelines indicate that when the majority of employees in a particular job classification and region are covered by a collective bargaining agreement (CBA), the terms of the CBA are used to establish the prevailing wage and supersede any alternative wage determinations that might be made by the DOL. Because a majority of observers in the North Pacific are currently covered by a CBA, it is likely that the DOL would use the existing CBA as the basis for a prevailing wage determination for North Pacific fisheries, meaning that observer salaries would not change under the SCA. In the case that observers and observer providers fail to reach a collective bargaining agreement in the future, however, all parties must abide by the previous CBA. The extent to which future CBAs would be affected by a new contracting model is not possible to predict.

Recently the Department of Commerce Office of General Counsel (DOC OGC) issued an opinion that contracted fisheries observers are non-exempt from coverage under the Fair Labor Standards Act and other Acts, as appropriate, by virtue of their status as technicians, and therefore are eligible for overtime pay.[43] This determination was based on information provided by DOC OGC and Department of Labor representatives by NMFS' National Observer Program. The National Observer Program, in consultation with the National Observer Program Advisory Team, reviewed the duties and responsibilities of fisheries observers and developed a classification scheme identifying three levels of Fishery Observer for consideration by the Department of Labor (Level I/II/III). This classification scheme was submitted to the Department of Labor's Wage Determination Division on September 9, 2002, and established wage rates for contracted fisheries observers that are comparable to Federal Observers under the General Schedule (GS) system.

However, in a subsequent letter to the Council, NMFS noted that consultation with the DOC OGC and the DOL resulted in the determination that NMFS has limited responsibility with respect to observer remuneration. The DOL's Wage and Hour Division is the primary Federal agency responsible for enforcing the SCA and FLSA, and the DOL regulations do not relate directly to the circumstances of fishery observers whose tour of duty may exceed 24 hours. NMFS thus recognizes that further guidance is necessary regarding these requirements and how they pertain to fishery observers.

In February 2005, the NMFS Alaska Region and Observer Program sent a memo to NMFS Headquarters requesting concurrence with its determination that North Pacific groundfish observers should be classified as professionals, under the FLSA.[44] Such a determination would make observers exempt from the overtime provisions of the FLSA. On November 29, 2005, NMFS Headquarters indicated in two letters that the agency has examined the issue and continues to believe that observers should be classified as technicians, under the FLSA, and therefore should be entitled to overtime pay.[45] Both letters are included as Appendix II.

In its response, NMFS Headquarters (11/29/05) stated:

> *For a learned professional FLSA exemption under 29 CFR 541.300-541.301, all of the following criteria must be met:*
>
> 1. *The employee must be compensated on a salary or fee basis (as defined in the regulations at 29 CFR 541.602), at a rate not less than $455 per week;*
> 2. *The employee's primary duty must be the performance of work requiring advanced knowledge, defined as work which is predominantly intellectual in character and which includes work requiring the consistent exercise of discretion and judgment;*

[43]Memo from William Hogarth to Terry Lee, November 13, 2003. See Appendix II.
[44]Memo from James Balsiger and Douglas DeMaster to William Hogarth, February 4, 2005. See Appendix II.
[45]Letter from William Hogarth to Arni Thomson, November 29, 2005, and letter from William Hogarth to Alfred Robinson, Wage and Hour Division, Department of Labor, November 29, 2005.

3. *The advanced knowledge must be in a field of science or learning; and*
4. *The advanced knowledge must be customarily acquired by a prolonged course of specialized intellectual instruction.*

Our evaluation reviewed the duties and qualifications of observers in all regional observer programs, including the North Pacific Groundfish Observer Program (NPGOP), to determine whether some or all of the observer programs satisfied the professional exemption criteria. None meet all the requirements. Specifically, the NPGOP program did not satisfy the first or second criteria.

I share your concern about the cost implications of these job classifications, since they may have an impact throughout the nation, and thus influence our ability to adequately monitor the nation's living marine resources. As one possible source of cost savings, keep in mind that, regardless of employee designation, overtime requirements of the FLSA do not need to be met when employee's are operating under a qualified collective bargaining agreement (29 USC 5207(b) et seq.)

At the same time, observer providers operating in the North Pacific groundfish fishery state that they have obtained legal advice indicating that they are correct in considering their observers to be professional employees and therefore exempt from overtime pay requirements under the FLSA.[46] Clearly, this issue must be resolved before the cost structure of any future program can be understood and analyzed.

Complications and uncertainties associated with paying overtime for North Pacific observers

In addition to the questions associated with whether or not overtime pay is applicable in the North Pacific, there are a number of other questions related to the application of overtime pay to actual working circumstances. On November 29, 2005, NMFS drafted a letter to the Wage and Hour Division of the U.S. Department of Labor (DOL) seeking clarification on a number of issues.[47] These included whether and how overtime pay would apply under all of the various working circumstances in which observers participate. These include the following:

- **Training/briefing**. Observers are required to undergo up to three weeks of training prior to being certified as an observer. Returning experienced observers may be required to attend a one- to four-day briefing. Training and briefing occur on an 8 hour a day work schedule and do not occur on weekends.

- **Waiting to travel/board vessel after training/briefing.** At the conclusion of training/briefing, observers may wait up to three weeks in the city where the training or briefing was conducted before travel to their work site commences. The training location is usually not their regular residence.

- **Travel to and from worksite.** Due to the harsh and unpredictable weather in some remote locations, observers may wait for up to one week before they are able to travel to or from their work site. Depending on the circumstances, the observers may be waiting to travel at a shore-based plant, or on board a vessel at the dock, in a hotel room, or in employer-provided housing.

[46]Michael Lake, President, AOI Observers, commenting during the Council's 2005 Observer Advisory Committee meeting.
[47]Letter from William T. Hogarth, Ph.D. to Alfred B. Robinson, Jr. Deputy Administrator, Wage and Hour Division, US Department of Labor, November 29, 2005.

- **Waiting deployment on a vessel or plant.** Vessels often breakdown unexpectedly and are unable to depart from port on schedule. Due to the uncertainties of the problem, the observer often remains assigned to the vessel. The observer may be waiting at a shore-based plant, on board the vessel at the dock, in a hotel room, or in employee-provided housing.

- **Traveling to and from the fishing grounds.** In some cases, observers have been required to travel for up to 10 days on a vessel in order to reach the fishing grounds (work site). Observers have boarded Alaska-bound vessels in Seattle and on rare instances, even in Japan. Often, the observer works during transit, including marine mammal observations, setting up their sampling station, and other organizational/orientation tasks. Depending on the transit time to the fishing grounds, however, the observer may run out of work.

- **On board the vessel but unable to work due to lack of fishing, rough weather, illness, or injury.** Observers often find themselves deployed on a vessel at sea, but without work when a vessel is not fishing, due to rough weather, fishing closures, or time spent transiting between areas or exploring for fish. Observers may also be unable to work if the weather is too rough to allow sampling on deck, or if the observer is seasick or suffering from other illness or injury.

- **Waiting between vessel assignments.** Sometimes an observer may cover up to five different vessels or processors during a single contract period. Observers often have to wait for unpredictable periods of time when switching between vessel assignments. Depending on the circumstances, the observers may be waiting to travel at a shore-based plant, or on board a vessel at the dock, in a hotel room, or in employer-provided housing.

- **Waiting to debrief.** Once an observer has completed his or her duty, he or she may wait up to three weeks before a debriefer is available to debrief the observer. The observer may be housed by his or her employer at the location of the debriefing center and not where he or she typically resides.

To date, the DOL has not responded to NMFS's inquiries as to the applicability of overtime pay under various working circumstances. **Absent clear guidance on these issues, it is not possible to estimate how observer wages would differ from the status quo, if North Pacific observers are paid under a new system with overtime pay.**

Possible approaches to clarify the overtime pay situation

Although NMFS is not directly responsible for establishing prevailing wages, nor determining whether or not the overtime provisions of the FLSA apply to observers working in the North Pacific, there are two ways in which the overtime pay issue could be resolved in a more definitive manner:

- **Clarification/revision of observer duties and position descriptions**. NMFS could modify the duties and position descriptions of North Pacific observers in such a way as to clarify in a more definitive manner whether observers are professionals, and thus exempt from the overtime provisions of the FLSA, or technicians and subject to the overtime provisions of the FLSA. To this end, NMFS Alaska Region sent a memo to NMFS Headquarters requesting concurrence with its determination that groundfish observers in the North Pacific are professionals, and therefore exempt from the overtime requirements of the FLSA. This determination was based on the premise that North Pacific groundfish observers' duties are different, more complex, and more

demanding than the duties of observers in other regions. In addition, the education and training requirements for North Pacific groundfish observers are the most comprehensive in the nation.[48]

- **Statutory clarification**. Congress could amend the FLSA to clarify whether North Pacific observers are entitled to overtime under the FLSA. Many similarly situated maritime industries have statutory exemptions from the overtime requirements of the FLSA. Congress could choose to clarify this issue as part of the statutory authorization required for any of the restructuring alternatives in this amendment, either by mandating that the overtime requirements of the FLSA apply to North Pacific observers, or by providing an exemption to the overtime requirements of the FLSA for North Pacific observers.

Until the issue of overtime pay for observers is resolved, the cost estimates contained within this analysis should be considered hypothetical, but based upon the best information available at this point in time. However, to provide some information about possible coverage costs under a system with overtime pay, the following section attempts to estimate what coverage costs *could* look like.

Overtime pay: Some possible scenarios and cost estimates

NMFS currently administers one observer program in Alaska in which a system of overtime pay is in use: the Alaska Marine Mammal Observer Program, which deploys observers in certain salmon fisheries off Alaska. Because this program operates through direct Federal contracting, minimum wages are established through the SCA wage determination process. This is the only SCA wage determination currently in effect for observers working in Alaska, and would likely also apply to groundfish observers under a new system of Federal contracting, unless the professional status of observers is resolved as noted above, or unless the union negotiates a different overtime pay schedule. The current SCA wage determination for the Alaska Marine Mammal Observer Program establishes three levels of observers that roughly correspond to the three levels of groundfish observers: level 1, level 2, and lead level 2. The minimum wages for the three levels of observers in this program are as follows:

Fishery Observer 1:	$12.55/hour
Fishery Observer 2:	$13.99/hour
Fishery Observer 3:	$15.55/hour

The following benefits must also be provided:

Health and welfare - $2.38 an hour, or $94.40 per week, or $409.07 per month.
Vacation - 2 weeks paid after 1 year of service, 3 weeks after 5 years, and 4 weeks after 15 years.
Holidays - 10 paid holidays are noted.

Because the hours worked by observers in North Pacific groundfish fisheries vary dramatically depending on the year, gear type, and fishery, it is not possible to generalize as to how many hours observers would work in the typical groundfish or halibut fishery. Furthermore, the question of what constitutes work time (or hours worked) for observers working at sea has not been well defined. The complexities surrounding defining work time and non-work time for observers is outlined in detail in a letter from NMFS Headquarters to the Department of Labor (see Appendix II).[49] Nevertheless, the North Pacific Groundfish Observer Program has attempted to estimate typical hours currently worked by groundfish observers in various fisheries, through communications with observers during the debriefing process. These figures should be treated as *very preliminary estimates,* given that the definition of hours worked

[48]Memo from James Balsiger and Douglas DeMaster to William Hogarth, February 4, 2005. See Appendix II.

[49] Letter from William Hogarth to Alfred Robinson, Wage and Hour Division, US Department of Labor, November 29, 2005.

for groundfish observers has not been established. In Table 4-13, estimates were generated for various fisheries:

Table 4-13 Preliminary estimates of actual hours worked for various groundfish fisheries off Alaska

Fishery	*Number of observers*	*Average hours worked*	*Tasks*
Trawl CPs fishing flatfish and rockfish	one	12-16 hours/fishing day	3-4 hours per haul, 3-4 hauls per day sampled, plus paperwork
Trawl CPs fishing Atka mackerel	two	6-10 hours/fishing day	3 hours per haul, 2-3 hauls per day sampled, plus paperwork
AFA trawl CPs fishing pollock	two	8-12 hours/fishing day	6-8 hours in the factory, plus paperwork
AFA trawl CVs fishing pollock	one	6-8 hours/fishing day	4-6 hours per day sampling, plus paperwork and an additional 8-10 hours monitoring offloads (approx. once per week)
Hook-and-line CPs fishing Pacific cod in the BSAI	one	12-16 hours/fishing day	4-6 hours/haul, 2-3 hauls sampled per day, plus paperwork
Hook-and-line CPs fishing sablefish, turbot, and halibut	one	12-16 hours/fishing day	3-4 hours/haul, 3-4 hauls sampled per day, plus paperwork

Table 4-14 displays weekly and monthly wage estimates for each of the three wage levels of observers. These estimates include the health and welfare amount of $94.40/week and assume observers would be working every day of the week or month, respectively.

Several caveats apply to the weekly and monthly wage estimates displayed in Table 4-14. First, to the extent that observers have non-working days per week or month, these estimates would be high. Second, these estimates do not take into account vacation pay, which would add approximately two paid days of vacation per month to the monthly estimates. In general, observers on CVs have many more non-working days per month than observers on CPs, because CVs spend more time in port and transiting to the fishing grounds. On some trawl and hook-and-line CPs that take longer fishing trips, it is conceivable that some observers may work 30 or more consecutive days without a break. Short openings and weather may affect the number of days worked per week, or month, for some observers. These factors are more likely to affect smaller vessels and CVs, rather than larger CPs operating in the BSAI. However, the extent to which any of these factors affect the number of hours worked by observers is ultimately dependent on a definition of *hours worked* for observers, which has not yet been established. **NMFS has requested input from the Wage and Hour Division, U.S. Department of Labor, to clarify many of the unresolved issues related to determination of hours worked for the purpose of determining observer pay and overtime. To date, NMFS has not received any such input.**[50]

Unions have traditionally been heavily involved in negotiating work rules in industries in which workers are paid hourly wages, plus overtime. Work rules such as minimum and maximum hours worked/day and rules for calculating the number of hours worked and overtime are all likely to be subjects of collective bargaining should the North Pacific Groundfish Observer Program shift to a system in which observers are paid hourly wages, plus overtime. In addition, NMFS could restrict the number of hours worked by observers by establishing a maximum number of hours/day that observers are to work in various fleets. However, these sorts of restrictions could affect data quality and quantity to the extent that observers end up working fewer hours than under the status quo, and are unable to sample as many hauls, or take as

[50]Letter from William Hogarth to Alfred Robinson, Wage and Hour Division, U.S. Dept. of Labor, November 29, 2005.

large a sample per haul in a given work day. The costs in Table 4-14 can be compared to representative collective bargaining wages in effect for the same time period from a representative contract negotiated in 2004 and applicable in 2005, as displayed in Table 4-15.

Table 4-14 Estimated weekly and monthly wages for observers based on hours worked/day

daily hours	*Weekly hours (7-day work week)*		*Estimated weekly wage (includes $94.40/wk health and welfare)*		
	regular hours	*overtime hours*	*Level 1 Observer ($12.55/hr)*	*Level 2 Observer ($13.99/hr)*	*Lead Level 2 Observer ($15.55/hr)*
6	40	2	$634	$696	$763
8	40	16	$898	$990	$1,090
10	40	30	$1,161	$1,284	$1,416
12	40	44	$1,425	$1,577	$1,743
14	40	58	$1,688	$1,871	$2,069
16	40	72	$1,952	$2,165	$2,396
			Estimated monthly wage (based on 30 days worked/month)		
6	40	2	$2,717	$2,983	$3,270
8	40	16	$3,847	$4,242	$4,670
10	40	30	$4,976	$5,501	$6,069
12	40	44	$6,106	$6,760	$7,469
14	40	58	$7,235	$8,019	$8,868
16	40	72	$8,365	$9,278	$10,268

Table 4-15 Observer daily, weekly, and monthly wages[1] from a sample 2005 contract in effect in the North Pacific

Grade	*Assigned days*	*Daily Rate*	*Weekly Rate*	*Monthly Rate (30 days)*	*Monthly Rate with bonus pay[2]*
1	0 - 5	$130	$910	$3,900	$4,110
2	96 - 215	$150	$1,050	$4,500	$4,710
3	216 - 335	$160	$1,120	$4,800	$5,010
4	336 - 455	$170	$1,190	$5,100	$5,310
5	456-635	$180	$1,260	$5,400	$5,610
6	636 +	$188	$1,316	$5,640	$5,850

[1]Does not include employer contributions to the Seafarers Money Purchase Pension Plan, which were 1.0% of pre-tax earnings in 2005 and 1.5% of pre-tax earnings in 2006, and does not include health and welfare benefits of $85.

[2]Grade 2-6 observers who worked at least 150 deployed days in a calendar year received bonus pay of $7/day. This bonus pay increased to $7.50/day in 2006 and will increase to $8/day in 2007.

Cost-containment: Some possible approaches to constraining observer costs

While the transition to a new contracting model has the potential to increase observer costs if wages are governed by DOL wage determinations that require overtime pay, a new contracting model also has the opportunity to contain costs in ways that are not available in the current pay-as-you-go system. These include:

- **Elimination of vessel-specific coverage requirements**. Under the current system, each vessel in the 30% coverage category is required to obtain coverage for 30% of their fishing days on a quarterly basis. This system leads to inefficient use of observer resources, because multiple observer providers are attempting to ensure that each individual vessel meets its coverage requirements during short and often widely dispersed fisheries. A new system in which a single observer provider is contracted to provide a certain level of coverage for a specific fleet or fishery is likely to be much more efficient, because the observer provider only needs to determine the number of vessels operating in the fishery and then deploy the exact number of observers necessary to achieve the desired level of coverage for that fleet. The observers can be rotated from vessel to vessel according to random sampling protocols, and each individual vessel may receive a different level of coverage, but at the fleet level the desired level of coverage may be attained with fewer observers and less observer down-time, than under the status quo.

  Additionally, a fleet of vessels could share the costs associated with observer deployments. Currently, observer providers charge vessels for the costs of transporting and housing an observer in the course of their deployment. Under a restructured observer program where an observer provider would randomly or systematically deploy a known observer resource to a common fleet, in some cases these costs could be dispersed to the entire fleet rather than a single vessel.. While the current service delivery model creates competition between multiple observer providers that decreases costs for some vessels, competition during the contracting process would contain costs to some extent, in addition to the efficiencies discussed above.

- **Observer work rules and tasking limits.** Under the current system, observers are given minimum workload standards that they are supposed to achieve, but are generally not limited in the number of hours they can work. Some highly productive observers currently put in a tremendous number of hours and would be entitled to a significant amount of overtime pay under a program in which observers are paid an hourly wage, plus overtime. The establishment of more formal work hours and work rules for observers to limit the number of hours they work is one obvious way that overtime costs could be contained. Such limits, however, could also affect the quantity of data collected, so there may be a tradeoff between cost containment and data quality in some instances.

- **More flexible deployment rules.** Observer providers have identified certain deployment rules (e.g., deployments cannot exceed 90 days) as a factor that increases observer costs under the current system. More flexible deployment rules for observers may be an additional way in which costs could be contained under a restructured program with direct Federal contracting. However, again, this may present a tradeoff between cost containment and data quality, as compelling evidence suggests that observer productivity declines on deployments longer than 90 days.

Should NMFS work with observer providers and industry to develop a new contracting system under Alternatives 3 - 5, additional possibilities for cost containment are likely to arise.

4.4.4 Proposed low and high fee percentage endpoints under Alternatives 3 - 5

Given the uncertainties surrounding both the issue of SCA prevailing wage determinations, and the applicability of the overtime provisions of the FLSA, the daily costs of observer coverage under the alternatives cannot be predicted at this time. For this reason, and given the rationale provided above, the cost estimates used to generate fee percentages contained in this section are based on the current system of daily wages without overtime.

In Tier 3 and Tier 4 fisheries, the costs of the program are not only dependent on the daily costs of observer coverage, but also on the coverage levels established for Tier 3 and Tier 4 fisheries and the ex-vessel revenues generated by those fisheries. Of these two factors, only the coverage levels are within the control of NMFS. NMFS has no way to control or predict the future ex-vessel revenues of groundfish and halibut landings, which will be determined by the future prices and future harvest levels in each fishery.

Setting an initial fee percentage is one of the biggest decision points in this amendment under Alternatives 3 – 5. The fee percentage (and the level of Federal subsidization, if any) will determine the program's budget and will directly affect coverage levels in the fisheries covered by the program, and the cost paid by industry. The issue of how much coverage is necessary or optimal to manage particular groundfish and halibut fisheries is a difficult one that is beyond the scope of this analysis. The analysis instead describes the process by which this determination will be made annually by NMFS (see Section 4.3).

Furthermore, most of the fisheries in question are currently evolving, as a rationalization program is under development for the GOA groundfish fishery, and a cooperative proposal is under development for the non-AFA trawl catcher processor groundfish fisheries in the BSAI (under Amendment 80). It is also beyond the scope of this analysis to attempt to determine what levels of coverage will ultimately be necessary to implement the various rationalization and bycatch management proposals that are currently under development. For this reason, this analysis is limited to considering the fee percentages necessary to maintain existing levels of coverage and provide room to expand the program into fisheries that currently have no coverage at all (the halibut and <60' groundfish fleets) in the absence of any direct Federal subsidies. To the extent that Federal subsidization becomes available, fee percentages could be reduced or coverage increased.

Three fee percentage levels are analyzed under each restructuring alternative: high endpoint, mid-point, and low endpoint. The "mid-point" fee level is included to show <u>the fee level necessary</u> to provide 100% coverage on all trawl and hook-and-line catcher processors 60'- 125' LOA as recommended by NMFS, if the Council place <125' CPs in Tier 3 and they are subject to an ex-vessel value fee. If <125' CPs are assigned to Tier 2, then the mid-point **<u>fee level is not applicable</u>**. Note that the difference between the two endpoints is based on changes in coverage levels in the Tier 3 and 4 fisheries, as those are the only fisheries in which the amount of observer coverage is flexible. By definition, the coverage levels in Tier 1 and 2 fisheries are automatically 200% and 100%, respectively.

Option 1 (lower endpoint): Maintain the existing number of deployment days. Under this option, the fee percentage would be set at the level necessary to provide an equivalent number of coverage days to that currently provided under the status quo. NMFS would have roughly the same number of observers to work with as are available under the status quo, but would have the flexibility to deploy these observers in a fashion to maximize the utility of the data collected. Under this option, any deployment of observers in the halibut fishery, and on groundfish vessels under 60', would come at the expense of existing coverage levels on shoreside processors and groundfish vessels ≥60'. Under all of the restructuring alternatives, the

average costs of observer coverage for vessels that currently carry observers would go down under this endpoint, because the status quo coverage costs would be distributed across all vessels in the respective fleet.

The low-endpoint fee percentages for each alternative are generated by determining the total annual costs of observer coverage for the vessel and processor classes included in each alternative that are currently required to have observer coverage, and dividing by the ex-vessel value of all groundfish and halibut landings for all vessels and processors included in the new program that would be assessed a fee. Refer to Table 4-16.

Option 2 (mid-point fee): Establish a fee percentage that accommodates 100% coverage for trawl and hook-and-line CPs <125', while maintaining the existing number of observer days for the remaining fleets covered by the program. Under this option, all trawl and hook-and-line CPs <125' would be assessed a fee based upon a backcast from product weight to an ex-vessel round weight equivalent value, but with the objective of generating sufficient revenue to raise their coverage level to 100%. Therefore, fees would increase relative to Option 1, to accommodate the increase in coverage without affecting coverage levels in other fisheries. This option applies to Alternative 3, and would only apply to Alternatives 4 and 5 if CPs <125' were included in Tier 3. If CPs <125' were assigned to Tier 2 (as recommended by NMFS) under Alternatives 4 or 5, then the mid-point fee percentage is not applicable. In this case, CPs <125' would operate under the existing program (Alt. 4), or pay a daily fishing fee (Alt. 5), rather than an ex-vessel value fee. Based on 2000 – 2003 data, an estimated 1,237 additional observer days would be required to increase coverage to 100% for all hook-and-line and trawl CPs operating in the GOA that currently have 30% coverage requirements.[51] Refer to Table 4-17.

Option 3 (upper endpoint): Establish a fee percentage that is self-supporting at current coverage levels for sectors that currently have coverage, and apply the same fee percentage to all new fisheries into which the program expands. Under this option, the fee percentage would be set at a level necessary for fee revenues from the *currently covered* sectors of the industry (groundfish vessels ≥60' and inshore processors) to fund the current number of deployment days in those sectors. Each new sector that is not currently covered that comes into the program will generate additional fee revenues so that expansion of coverage into the <60' groundfish, and halibut fleets would not necessarily come at the expense of existing coverage for vessels ≥60'. Because the average daily revenues generated by halibut vessels and groundfish vessels under 60' are lower than the average daily revenues generated by groundfish vessels ≥60', and because observer costs per deployment day are generally higher for small vessels that operate out of more remote ports, fee revenues generated by halibut vessels and groundfish vessels <60' would not likely be adequate to extend coverage to those vessels at levels currently in effect for groundfish vessels ≥60'. A precise estimate of the level of coverage that the upper endpoint fee would provide for halibut and groundfish vessels <60' is difficult to determine, because data on the average number of fishing days for such vessels is unavailable.

The high-endpoint fee percentages for each alternative are generated by determining the total annual costs of observer coverage for the vessel and processor classes included in each alternative that are currently required to have observer coverage, and dividing by the ex-vessel value of all groundfish landings made only by vessels in those same classes. The difference between the two formulas is in the denominator. Estimated fee percentages and the additional observer days that would be funded for each alternative under the high endpoint fee percentage are displayed in Table 4-18.

[51] An estimated 4,980 additional observer days would be required to make the same change for all trawl and hook-and-line CPs >125' in both the BSAI and GOA.

In sum, all of the restructuring alternatives would allow for a more flexible and scientifically-based placement of observers, as well as placement of observers on vessels that are currently not covered (halibut and <60' vessels). The difference between the ex-vessel based fee options is that the **low-endpoint fee** would provide the same number of observer days as under the status quo, but it would be funded by a larger revenue base (includes halibut and <60' vessels). The **high-endpoint fee** would provide more observer days than under the status quo, so that observer coverage to the halibut and <60' fleets would not come at the expense of the ≥60' groundfish vessels with current coverage.

The low and high-endpoint fee percentages under Alternatives 3 – 5 can be compared to the average cost of observer coverage under the status quo (see Table 4-11 and Table 4-12) to determine whether the average vessel in a particular class would be paying higher or lower average observer costs under each of the restructuring alternatives relative to the status quo. It should be emphasized that the low and high-endpoint fee percentages estimated for each alternative do not take into account any direct Federal subsidies. To the extent that the new program receives direct Federal taxpayer subsidies to support the ongoing costs of observer coverage, the estimated fee percentages could be reduced, or coverage levels increased.

Table 4-16 through Table 4-18 show the estimated number of observer days, coverage costs, and fee percentages under the low, mid, and high fee endpoints, respectively. These estimates are based on the average number of observer days and ex-vessel value revenues from 2000-2003. Table 4-18 also shows the estimated number of additional observer days that would be funded under the high-endpoint fee percentages for each alternative.

Table 4-19 provides a summary of the low, mid, and high endpoint fee percentages for each alternative for comparison purposes. As this table displays, the estimated fee percentages vary for each alternative. This is because the revenue base and current number of observer days for each sector of the fishery are not uniform. Alternative 5 is the comprehensive alternative, in which all vessels and processors would be included in the new program. The fee percentages for Alternative 5 are based on a program in which only Tier 3 and 4 fisheries would be included in the ex-vessel value fee program and all Tier 1 and 2 fisheries would be funded separately through a daily observer fee. The estimated fee percentages vary among alternatives, because each fishery that is added to or removed from the new program brings with it different coverage requirements and a different revenue base.

This analysis makes no attempt to project how many additional observer days would be required to accommodate proposed increases in observer coverage resulting from the implementation of BSAI Amendment 79 or Amendment 80. Under these programs, most non-AFA trawl CPs would be subject to 200% observer coverage while operating in the BSAI. Previous rationalization programs such as the AFA have resulted in reductions in fleet size on the order of 40% and longer fishing seasons for the remaining participants. However, the extent to which similar results will occur in the non-AFA trawl CP fleet are difficult to predict. For this reason, this analysis does not simply double the average number of observer days used by this fleet in 2000-2003 to project estimated coverage needs for this fleet in the future. Nevertheless, coverage costs for this fleet are expected to increase as a result of the new groundfish retention standard and cooperative program. These cost increases would be born entirely by the individual vessels under all of the alternatives. BSAI Amendment 79 will be effective in January 2008, and BSAI Amendment 80 will likely be effective in 2009.

Table 4-16 Low endpoint[1] estimated fee percentage for each alternative based on 2000-2003 average estimates of observer days and ex-vessel revenues

Alternative	Observer days	Observer cost (millions)[2]	Revenues subject to fee (millions	Estimated fee percent
Alt. 3 (GOA-based)	5,288	$1.88	$381	0.49%
Alt 4 & 5 (Tiers 3 and 4 w/o CPs <125')	10,025	$3.56	$501	0.71%
Alt. 4 &5 (Tiers 3 and 4 with CPs <125')	12,680	$4.50	$544	0.82%

Source: NMFS observer data, 2000 – 2003.
[1]Based on maintaining current number of observer days
[2]Based on an estimated daily average cost of $355/day for 2000-2003 which includes estimated travel costs of $25/day and meal costs of $15/day.

Table 4-17 Mid-point[1] estimated fee percentage for each alternative based on 2000-2003 average estimates of observer days and ex-vessel revenues

Alternative	Observer days	Add'l obs days relative to SQ	Observer cost (millions)[2]	Revenues subject to fee (millions	Estimated fee percent
Alt. 3 (GOA-based)	6,525	1,237	$2.32	$381	0.60%
Alt. 4 (Tiers 3-4 w/ CPs <125')	17,660	4,980	$6.27	$544	1.15%
Alt. 5 (Tiers 3-4 w/ CPs <125')	17,660	4,980	$6.27	$544	1.15%

Source: NMFS observer data, 2000 – 2003.
[1]Includes additional number of observer days necessary to increase coverage on CPs<125' from 30% to 100% if CPs <125' are included in Tier 3 and their coverage level raised to 100%.
[2]Based on an estimated daily average cost of $355/day for 2000-2003 which includes estimated travel costs of $25/day and meal costs of $15/day.

Table 4-18 High endpoint[1] estimated fee percentage for each alternative based on 2000-2003 average estimates of observer days and ex-vessel revenues

Alternative	Observer days	Add'l obs days relative to SQ	Observer cost (millions)[2]	SQ revenue base base (millions)	Estimated fee percent
Alt. 3 (GOA-based)	12,340	7,052	$4.38	$163	1.15%
Alt 4 & 5 (Tiers 3 and 4 w/o CPs <125')	18,628	8,603	$6.61	$271	1.32%
Alt. 4 &5 (Tiers 3 and 4 with CPs <125')	22,066	9,386	$7.83	$313	1.44%

Source: NMFS observer data, 2000 – 2003.
[1]Assumes that new fee revenues from currently uncovered fisheries (<60 groundfish vessels and halibut vessels) would be dedicated to new coverage rather than subsidizing existing coverage levels.
[2]Based on an estimated daily average cost of $355/day for 2000-2003 which includes estimated travel costs of $25/day and meal costs of $15/day.

Table 4-19 Estimated observer days, coverage cost, and fee percentages for low, mid, and high endpoint fee options based on 2000-2003 average coverage days and ex-vessel revenues

Alternative	Observer days			Observer cost			Estimated fee %		
	Low	Mid	High	Low	Mid	High	Low	Mid	High
Alt. 3 (GOA-based	5,288	6,525	12,340	$1.88	$2.32	$4.38	**0.49%**	**0.60%**	**1.15%**
Alt 4 & 5 (Tiers 3 and 4 w/o CPs <125')	10,025	N/A	18,628	$3.56	N/A	$6.61	**0.71%**	**N/A**	**1.32%**
Alt. 4 & 5 (Tiers 3 and 4 with CPs <125')	12,680	17,660	22,066	$4.50	$6.27	$7.83	**0.82%**	**1.15%**	**1.44%**

Source: NMFS observer data, 2000 – 2003.

4.4.5 Establishing a daily observer fee for Tier 1 and Tier 2 fisheries under Alternative 5

Under the proposed daily observer fee for Tier 1 and Tier 2 fisheries under Alternative 5, all vessels and processors operating in Tier 1 and Tier 2 fisheries would be assessed a daily observer fee that is equal to the actual average daily cost of observer coverage, as determined by the coverage contract in effect for each fishery. Using estimated 2003 current coverage daily costs of $355 per day, which include transportation costs, the daily observer fee would be $710 in Tier 1 fisheries (200% coverage), and $355 in Tier 2 fisheries (100% coverage).[52] Vessels and processors that are currently subject to 100% and 200% coverage and that are proposed for inclusion in Tier 1 or Tier 2 would face no change in their average daily observer costs, relative to the status quo, as long as the daily costs of coverage do not increase. Note that, as described above, observer costs change depending on where the observer is deployed, and other logistical issues. To the extent that these issues remain consistent under a restructured observer program, average observer costs should also remain consistent.

4.4.6 Coverage costs specific to the CDQ Program

In many instances, vessels and processors participating in the CDQ program face additional costs related to the increased coverage requirements imposed on the CDQ program. The current coverage requirements for CDQ vessels are presented in Table 4-7. Estimates of the costs imposed by these coverage requirements for each category of vessel participating in the CDQ program are displayed in Table 4-20 below. Because data on the actual coverage costs in CDQ fisheries are unavailable, these estimates are derived by taking the estimated coverage cost for each vessel class in non-CDQ fisheries and extrapolating upwards, to account for the increased coverage requirements for CDQ fishing in some fisheries.

It should be noted that approximately 85% of CDQ harvests, by weight, are made by AFA CPs and AFA CVs delivering to AFA motherships. In both of these cases, the coverage requirements for CDQ and non-CDQ fishing are identical due to the existing coverage requirements imposed on AFA vessels and processors. For the remaining 15% of CDQ harvests that are made by non-AFA vessels and processors, coverage costs during their participation in the CDQ fisheries are dramatically higher. An estimated 6.9% of total CDQ harvests are made by hook-and-line CPs ≥125', and 2.2% are made by hook-and-line CPs <125'. For these two vessel classes, the estimated costs of CDQ coverage as a percentage of ex-vessel value are 8.4%, and 29.5%, respectively. Likewise, 5% of total CDQ harvests are made by non-AFA CPs ≥125', with an estimated coverage cost of 4.8% of ex-vessel value. However, these vessels will be subject to increased coverage requirements in non-CDQ fishing in the future under BSAI Amendment 79 (effective January 2008), at which point the coverage costs in CDQ and non-CDQ fishing would be the same.

[52] A review of 2005 wage information that observer providers are required to file with NMFS indicates that average coverage costs have not increased from 2003 to 2005.

Table 4-20 Estimated costs of observer coverage in CDQ fisheries as a percentage of ex-vessel value

	Vessel Class	Average total groundfish catch 2000-2003		Estimated coverage cost as a % of ex-vessel value	
		metric tons	% of total	non-CDQ fishing	CDQ fishing
CP	AFA CP	117,719	72.44%	1.52%	**1.52%**
	Hook-and-line CP ≥125'	11,236	6.91%	4.20%	**8.40%**
	Hook-and-line CP <125'	3,587	2.21%	4.42%	**29.47%**
	Pot CP	1	0.00%	4.27%	**14.24%**
	Non-AFA Trawl CP ≥125'	8,210	5.05%	2.37%	**4.75%**
	Non-AFA Trawl CP 60-124'	60	0.04%	2.70%	**18.02%**
CP Total		140,812	86.65%		
CV	AFA Trawl ≥125'	1,481	0.91%	1.72%	**1.72%**
	AFA Trawl <125'	372	0.23%	1.02%	**3.40%**
	Hook-and-line 60-124'	56	0.03%	6.13%	**20.44%**
	Hook-and-line <60'	32	0.02%	0.00%	**0.00%**
	Pot 60-124'	307	0.19%	2.86%	**9.53%**
	Pot <60'	22	0.01%	0.00%	**0.00%**
CV Total		2,270	1.40%		
Mothership	AFA Trawl ≥125'	19,418	11.95%	2.13%	**2.13%**

4.4.7 Summary of the direct economic effects on the fishing fleets

Under the existing observer program, vessels required to carry observers must contract directly with NMFS-certified observer providers to obtain their coverage. Based on information provided by observer providers and a salary range for observers that approximates the 2003 unionized salary rate, the total cost per observer day, under Alternative 2, is estimated at $355. Industry has indicated that they sometimes pay more than this for an observer; these costs vary on a case-by-case basis depending on duration of observer coverage, location, and observer logistics.

Table 4-11 and Table 4-12 provide a summary of the 2000 - 2003 average annual coverage days, estimated observer costs, ex-vessel value of groundfish landings, and average observer costs as a percentage of ex-vessel value for each vessel or processor type and management area. These tables represent the analysts' best estimates of observer costs under the existing program at this time.

Under all of the restructuring alternatives (Alternatives 3 – 5), the direct cost of the program on groundfish and halibut vessels is the ex-vessel value fee that would be assessed for fisheries covered by an ex-vessel value fee, and the daily observer fee assessed on those fisheries covered by a daily observer fee. The various estimated fee percentages shown in Table 4-19 represent the percentage of ex-vessel value that would be assessed under each alternative. Table 4-19 also displays the total coverage costs of each alternative. Total program costs will be higher than total coverage costs shown under each alternative because of the overhead required to develop and administer a new fee program and system of direct Federal contracting for observer services**. However, the estimated fee percentages are based on the assumption that fee proceeds would only be used to pay for the direct costs of observer coverage and that all program overhead and implementation costs would be covered by NMFS through other revenue sources.**

For those fisheries subject to a daily observer fee, namely the Tier 1 and Tier 2 fisheries under Alternative 5, the average costs of coverage are not expected to vary from the status quo. This is based on the two assumptions described in Section 4.4.2: (1) that the current CBA would be used as the prevailing wage under future SCA wage determinations, and (2) that a new system of overtime pay will not be required. If either of these two assumptions is incorrect, then costs will vary and could increase in ways that are not possible to predict at this time.

Under Alternative 2, extension of the existing program, the distribution of observer costs in the existing Observer Program is viewed by many to be inequitable for one or both of the following reasons. First, although all participants in the groundfish, halibut, herring, salmon, and crab fisheries benefit from the data collected in the groundfish Observer Program, only the participants in the groundfish fishery with observer coverage requirements (vessels ≥60' and processors) bear the cost. Second, among the groundfish fishing or processing operations that pay for observer coverage, the cost to each operation is not related to either the benefits it receives from the Observer Program, its ability to pay for observer coverage, or the benefit it receives from the resource. The current cost of a vessel's observer coverage is determined principally by its coverage requirements under current Federal regulations and the cost per day of obtaining observer services from an observer provider.

Alternatives 3 through 5 seek to address the problem of disproportionate costs by imposing a uniform fee for all vessels and processors in Tier 3 and 4 fisheries. Because coverage costs for Tier 1 and 2 vessels collectively would be divided by the number of observers needed on these vessels, the cost per observer would even out across the fleet, thereby addressing problems of disproportionate costs only within Tiers 1 and 2.

4.5 Additional costs not related to coverage under Alternatives 3 - 5

This section examines economic issues related to the choice of a fee type (ex-vessel value, versus daily observer fee), the use of standardized or operationally appropriate prices (i.e. actual ex-vessel or round weight equivalent backcast), and supplemental funding options. Alternative 3 assumes that a uniform ex-vessel value based fee would be established for all vessels and processors in the GOA. Alternatives 4 and 5 assume that a uniform ex-vessel (or equivalent) value fee would be established for all participants in the program that operate in Tier 3 and Tier 4 fisheries. Participants in Tier 1 and Tier 2 fisheries would operate under a daily observer fee similar to the current pay-as-you-go program under Alternative 5. This section also examines TAC and price volatility on an annual and regional basis to determine how changes in total ex-vessel revenue might affect program stability and equity.

4.5.1 Costs of implementing and administering a fee collection program

Supplemental fees

The choice of a uniform fee for Tier 3 and Tier 4 fisheries is based on the assumption that all such fisheries would continue to be managed under the current limited access management system, which relies on aggregate data to manage TACs, rather than individual vessel-specific data. However, the implementation of a rationalization program for GOA groundfish fisheries, and/or BSAI groundfish fisheries, would greatly affect the data collection and monitoring requirements for those fisheries covered by the rationalization program. Monitoring and enforcement alternatives have yet to be developed for the GOA rationalization amendment, however, the rationalization alternatives currently under consideration could require increased observer coverage. Other proposals, such as the cooperatives for BSAI non-AFA trawl CPs under Amendment 80 may also require significant increases in observer coverage.

The Council may wish to consider whether it is more equitable to fund the increases in observer coverage required by new rationalization programs through supplemental fees assessed only on the participants that benefit from such rationalization programs. Under this approach, vessels in fisheries that do not participate in new rationalization programs would not be required to subsidize the additional coverage in other fisheries from which they do not benefit. Most of the GOA and BSAI rationalization alternatives under consideration contain options for individual bycatch quotas at the individual vessel or cooperative level. These programs would likely require substantial increases in observer coverage to generate adequate catch and bycatch data at the individual vessel or individual cooperative level. If and when such programs are ultimately approved, the Council may wish to consider whether it may be more equitable to fund such increases in observer coverage through a supplemental fee that is imposed only on those vessels that benefit from the rationalization program. Alternatively, at final action for those programs, the Council may determine that they need to move into a different tier category with increased coverage requirements (e.g., Tier 1 or 2).

Fee collection

With advances in electronic reporting, fee tracking and submission could be largely automated, reducing the administrative burden that was a major issue for processors with the Research Plan. Alternatively, the IFQ fee collection program is based on direct billing of fishermen and has proven that such a system is viable, at least in the context of IFQ fisheries where individual quotas (or fishing permits) may be withheld for lack of payment. Under Alternatives 3 - 5, processors would be responsible for collecting fees from shoreside fishermen at the time of landing, and for submitting fee proceeds on a quarterly basis.

Effects of price and landings volatility on fee collections

Total revenues generated by an ex-vessel value fee program are subject to fluctuation in both prices paid for each species and the tonnage of each species landed by vessels participating in the program. While NMFS, to some extent, controls total landings through the establishment of TACs, prices are dictated by the market and subject to a complex array of forces. Figure 4-15 displays the annual ex-vessel revenues from groundfish and halibut off Alaska, from 1990 through 2003, as well as a 5-year running average of the total value of both groundfish and halibut over that same time period. This figure illustrates that, while substantial fluctuations in the ex-vessel value of groundfish and halibut landings occur from year to year, the 5-year running average is relatively stable, with the exception of an increase in 2003 that is accounted for by an increase in the value of the halibut catch that year. This table is adapted from Table 2.1 of the 2005 Economic SAFE report.

While annual revenues from the groundfish and halibut fisheries tend to fluctuate from year to year, sometimes dramatically, as occurred in 1998 when groundfish landings dropped 43% to $434 million from $639 million in 1997, coverage needs in the fisheries are far more stable from year to year. This is illustrated in Table 4-12 which shows that total coverage days in the groundfish fisheries off Alaska ranged between 35,272 and 37,047, from 2000-2002, a variation of approximately 5%. Consequently, an observer program dependent on revenues from an ex-vessel value fee could face substantial variations in annual budget if the program is based on a fixed fee amount that does not vary from year to year. One alternative approach that would produce a more stable revenue base from year to year would be to base the fee percentage on a multi-year average of revenues generated during the previous several years. This could be a 5-year weighted average as shown in Figure 4-15, or a weighted average that gives more weight to more recent years. Such an approach would limit annual variations in revenues and produce a more stable funding base upon which to plan coverage levels.

Another approach would be to set the fee at some point higher than that indicated by the mean revenue level for the fisheries, to provide a cushion against low revenue years. For example, the fee could be set using the lower quartile for revenue in recent years and the surplus banked whenever revenue exceeds this level to ensure that funds are always available. Regardless of the approach taken, the ex-vessel value fee collection program must take into account annual fluctuations in revenues to produce a stable revenue base.

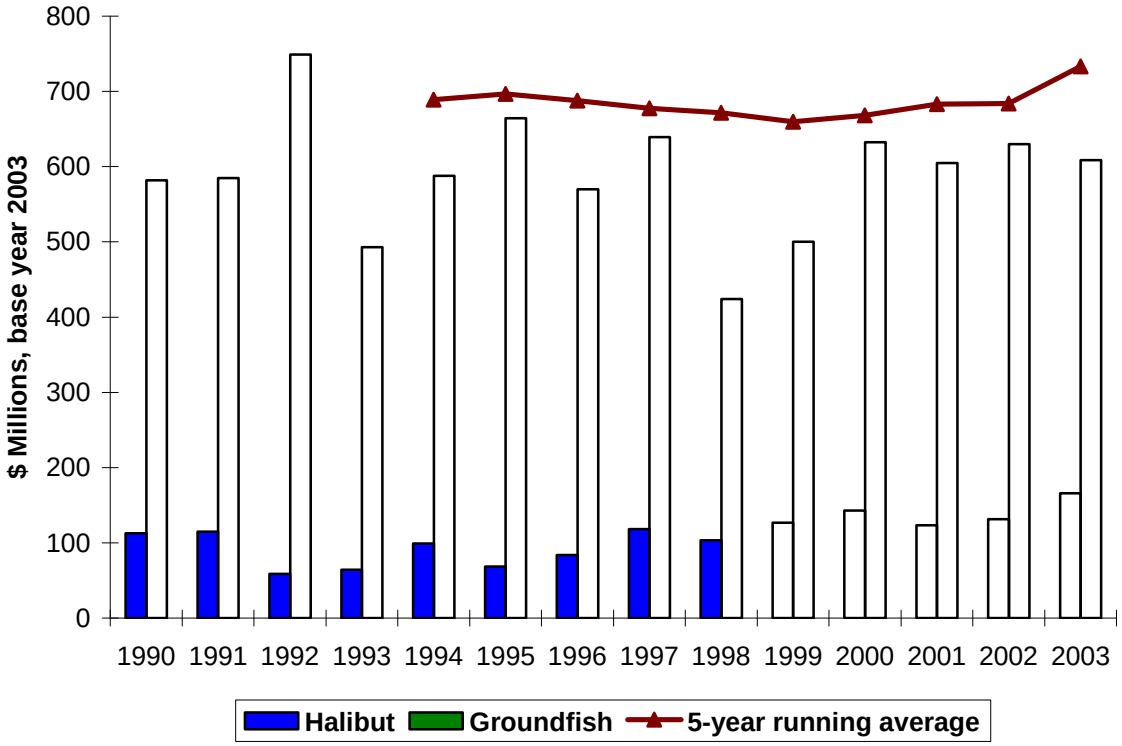

Figure 4-15 Annual ex-vessel value of the groundfish and halibut catch off Alaska, 1984-2003

4.5.2 Electronic logbook

Under all of the restructuring alternatives, some type of data collection system would be necessary to track the fishing activity of observed and unobserved vessels, in order to inform decisions about when and where to deploy observers. This is primarily (or exclusively) an issue in Tier 3 and 4 fisheries with less than 100% coverage, because in Tier 1 and 2 fisheries with 100% and greater coverage, the deployment decisions are automatic. The existing catch accounting system may be adequate for administering general coverage models. However, more sophisticated coverage models that are designed to respond to changing fishing patterns will require more precise and timely tracking of fishing activity than is provided by landing reports. The most viable method of tracking fishing activity in a more precise and timely manner would be the use of electronic fishing logbooks that are integrated with GPS or VMS technology.

While moving towards an electronic logbook requirement is a goal of NMFS and would provide important information to assist NMFS in deploying observers in the most effective manner, none of the alternatives contain a requirement that vessels obtain and use electronic logbooks. Instead, NMFS could create incentives for vessels to use electronic fishing logbooks on a voluntary basis. The extent and type of such incentives would depend on available funding and would need to be determined

during the program implementation phase. Currently, NMFS is drafting a proposed rule that would allow private companies to supply electronic logbooks to trawl catcher vessels. However, this program does not consider incentives.

4.5.3 Estimated agency costs for each alternative

Under all of the alternatives, it is assumed that NMFS would cover the costs of implementing and administering a fee collection program and that neither ex-vessel value fees, nor daily observer fees, would be used to administer a fee collection program or pay for program-related overhead. At present, NMFS has not made a quantitative estimate of either the implementation costs or administration costs of any of the fee programs under consideration. However, as a point of reference, the Restricted Access Management Division of NMFS Alaska Region estimates that the cost of database changes necessary to implement IFQ cost recovery fees were on the order of $75,000, and the ongoing administration of the IFQ cost recovery program requires one full-time employee and the overhead required to process and mail bills to all IFQ holders.[53] The remainder of this section represents a primarily qualitative discussion of the agency's costs under the alternatives under consideration.

Alternative 1: No action alternative. Under this alternative, regulations authorizing the current program expire at the end of 2007, meaning that no action is not a viable alternative given the objectives setforth for this action by the Council.

There are no direct additional agency costs associated with this alternative. Because the regulatory structure supporting the observer program would expire, observer program staff workload would be significantly reduced, and NMFS may experience reduced costs. Additionally, management programs would likely need to be simplified if observer data were not available to support complex existing programs, altering the workload for NMFS management personnel.

There could be several indirect costs associated with this alternative. There are several existing programs which are managed exclusively using data provided by observers (refer to Section 4.11.1). No viable alternative monitoring system exists to provide the same type and quality of data as observers, and management programs would need to be altered to address the reduced data available to managers. This could result in increased inefficiencies and reduced revenues for participants in those fisheries.

Alternative 2 (preferred alternative): Extension of the existing program. Under this alternative, the 2007 sunset date for the existing program would be removed and the program would be extended indefinitely, with no changes to the service delivery model, until such time as the Council takes further action.

There are no additional direct agency costs associated with this alternative. The current NMFS Observer Program has a 2006 budget of $4.8 million. Note that the NMFS Observer Program workload is a function of the coverage required of the fleet, because coverage needs determine the training, debriefing, and data handling needs. Required coverage can be affected by management programs recommended by the Council and implemented by NMFS or by statute. For each day of additional coverage obtained under the current service delivery model, NMFS Observer Program costs for training, data handling, and gear are increased by approximately $100. Additionally, agency costs for implementing regulatory changes, and inseason management of the fisheries, would remain unchanged.

[53] Jessie Gharrett, RAM Division, NMFS Alaska Region, pers. comm.

Alternative 3: GOA-based restructuring alternative.

Alternative 3 is expected to result in additional agency costs. Overall coverage is not expected to change substantially, thus, the overall training, data handling, and debriefing costs would remain the same. However, additional costs would be incurred for agency and field coordination on coverage, fee assessment, and contracting for the portions of the fleet covered by the new program. Coverage coordination involves making decisions on coverage priorities and targets and then achieving those targets through field activities. Costs associated with fee assessments would include programming, implementation, and fee collections. Contracting costs would include services provide by NOAA's Acquisition and Grants Office (AGO), to issue and manage contracts for the GOA. NMFS staff would need to be dedicated to serve as the Contractors Technical Representative (COTR) in managing the contract. Contract management would be an ongoing responsibility.

Alternative 4: Coverage-based restructuring alternative.

Alternative 4 is expected to result in additional agency costs. Overall coverage is not expected to change substantially, so the overall training, data handling, and debriefing costs would remain the same. However, additional costs would be incurred for agency and field coordination on coverage, fee assessment, and contracting for the portions of the fleet covered by the new program. Coverage coordination involves making decisions on coverage priorities and targets and then achieving those targets through field activities. Costs associated with fee assessment would include programming, implementation, and fee collections. Contracting costs would include services provide by NOAA's AGO to issue and manage contracts for the component of the fleet covered by the new program. NMFS staff would need to be dedicated to serve as the COTR in managing the contract. Contract management would be an ongoing responsibility. The scope of the contract would be slightly larger under Alternative 4 compared to Alternative 3, and thus, the contract could require more staff oversight.

Alternative 5: Comprehensive restructuring alternative.

This alternative is expected to result in additional agency costs. As in Alternatives 3 and 4, Alternative 5 includes agency and field coordination on coverage, fee assessment, and contracting. Some re-assigning of existing staff could be possible because some functions associated with the existing program would change. For example, NMFS would have a much greater responsibility for contract development and management, and less of a responsibility for monitoring regulatory compliance with contractor and observer regulations. Contracting costs would include services provided by NOAA's AGO to issue and manage contracts. NMFS staff would need to be dedicated to serve as the COTR in managing the contract. Contract management would be an ongoing responsibility. The scope of the contract(s) would be considerably larger under Alternative 5 and would require more NMFS oversight. For example, under some contract models, a NMFS full-time employee could be required to supplement AGO staff to manage a contract of this size. Agency costs associated with training, data management, and debriefing should remain unchanged or vary proportionally with coverage changes.

4.6 Effects on observers providers and observers

There are no anticipated effects on observer providers or observers associated with adoption of the Preferred Alternative (i.e., extending the existing program). The effects of the restructuring alternatives (Alternatives 3 – 5) on observer providers and observers are difficult to predict without resolution of additional details, such as the number and type of contracts to be issued. The following section addresses some preliminary conclusions associated with the restructuring alternatives, although none of these

options are presently under consideration in this action. The No Action Alternative would, of course, *eliminate* the North Pacific groundfish observer program, and with it the need to employ observers.

4.6.1 Effects on observers

A majority of observers currently working in the North Pacific are members of the Alaska Fisheries Division of the United Industrial Workers, and are working under collective bargaining agreements (CBA) that have been signed with three of the five observer providers that are currently operating in the North Pacific. Clearly, Alternative 1 (no action) would end the observer program, and thus negate any labor contract associated with it. Alternative 2, retention of the status quo, would have no impact on any CBA. As long as a majority of observers working in the North Pacific are working under a CBA, this analysis assumes that it is likely that the U.S. Department of Labor would base its SCA prevailing wage determinations on the terms of the CBA. The DOL is directed to do so according to the current DOL "Prevailing Wage Resource Book," which contains DOL's guidelines for making SCA prevailing wage determinations (DOL 2002). It is thus reasonable to assume that under any of the restructuring alternatives, observers working under a service delivery contract entered into by NMFS would be entitled to wages that effectively equal the CBA, regardless of whether or not they themselves are members of the union and covered by the CBA. Finally, on the basis of available information it is impossible to predict whether and how demand for observers and associated salaries, overtime pay, benefits, etc., would change under any of the restructuring alternatives (Alt. 3 through 5).

4.7 Federal funding for start-up costs and ongoing program implementation

This is not relevant to either the No Action Alternative 1, or the Preferred Alternative 2, under the action being proposed herein. It will be at issue at such time (if any) that the Council takes up an action to restructure the observer program. The likelihood of obtaining Federal subsidies to cover all or part of the ongoing costs of a restructured observer program is uncertain. However, Federal start-up funds will likely be necessary, prior to the first year of operation, to fund the program until sufficient fees are collected to maintain the program on an ongoing basis. Because contract modules are likely to be on an annual basis, and because NMFS cannot enter into contracts without the funds available, some level of startup funding will be required. The amount of start-up funding necessary depends on the type of contract used. If NMFS enters into annual contracts with observer providers, at least one-year's worth of contract costs would be required in advance. If contracts are established on a quarterly basis with an option for indefinite renewal, then startup funds equal to estimated first quarter coverage costs may be required, provided that the fee collection mechanism is timely enough to make first quarter fee collections available to NMFS at the start of the second quarter and fees collected from the previous quarter are equal to or greater than the costs incurred in the following quarter.

If start-up funding in the form of a Federal grant proves unlikely, an alternative may be a Federal loan, similar to that established to pay back the inshore pollock sector's portion of the buyout of nine catcher processors retired under Section 209 of the AFA. Start-up costs could be paid through fee proceeds over a longer period of time, such as the 20-year time period established for the AFA inshore fee program.

Federal subsidies also may be available to cover some or all of the ongoing direct costs of observer coverage under any of the alternatives. Again, it is not possible at this time to do more than speculate about the likelihood of obtaining Federal funds to subsidize coverage costs and the size of such a subsidy. This has been a subject of significant discussion during the past several years in the OAC meetings, and some participants contend that the issue is ripe for serious consideration. It should be noted that with the sole exception of the Pacific hake observer program, the North Pacific is the only region in which vessel owners are responsible for paying the cost of required observer coverage (except for cost associated with

managing the observer program, which are born by NMFS). In all other regions, observer programs are fully subsidized by Federal taxpayer funds. Therefore, industry has expressed that some level of Federal funding for a restructured observer program seems reasonable. One may also wish to consider the prevailing Federal deficit when speculating about the probability of a taxpayer funded observer program for groundfish fisheries off Alaska in which estimated gross product value exceeded **$1.96 *billion*** in 2005.[54]

4.8 Federal Agency Contracting Process

In all of the alternatives under consideration (except Alternative 1, in which the Observer Program is allowed to expire after 2007), private contractors would continue to be the source of observers deployed under the groundfish observer program. The main difference under Alternatives 3 – 5 from the current Alternative 2 program is that NMFS would be the entity responsible for contracting for observer coverage, rather than the vessel owner. Detailed regulations and procedures already govern the Federal contracting process. Therefore, this analysis 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 the program would operate, if at some future point in time the Council re-opened consideration of restructuring the observer program. This section also explores the role of contractors under a new program, and whether single or multiple contracts, and single or multiple contractors, are preferable.

NMFS is serviced for its contracting needs by staff in NOAA's Acquisition and Grants Office (AGO) located in Seattle. While AGO provides the service, contracting is a shared responsibility with NMFS because it is incumbent upon NMFS to articulate what it needs in a contract, to provide funds, and to monitor technical progress. NMFS intends to contract for observer work, because observer provider companies have demonstrated high competence and efficiency in completing this work in Alaska and throughout the U.S. Also, the contracting process allows for open competition, which should keep costs under control. In addition, past experience has shown that well managed contracts result in a cooperative effort between NMFS and the contractor. This fosters a "business partner" approach creating effective working relationships and communications which help in developing a responsive and efficient Observer Program.

There is a range of contracting options available to NMFS, and developing contracts will be done through a consultative process with AGO to ensure the best service while providing for competitive pricing. The number of contractors and the responsibility for duties between contractors and NMFS will be dependent to some degree on the scope of the program chosen by the Council when they readdress restructuring goals and how the various fisheries evolve (i.e. Gulf rationalization). At this time, NMFS envisions a minimum of two contractors and potentially more.

4.8.1 Indefinite-Delivery, Indefinite-Quantity Contracts

Although not relevant to the action under consideration in this RIR/IRFA, NMFS has identified a type of Federal contract that may be 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

[54] Per. comm. Terry Hiatt, AFSC REFM. October 24, 2006.

and there are no requirements for start-up funding to initiate the IDIQ contract. However, issuing task orders under this IDIQ framework would require funding to cover that specific task order. IDIQ contracts permit flexibility in both quantities and delivery scheduling and in ordering supplies or services after requirements materialize. This aspect 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 it is a very flexible contracting model.

- No up-front money required. NMFS only needs to state the minimum and maximum amount to be paid to each vendor (observer provider) for the duration of the contract. IDIQ still requires up-front money for each task order. Task orders (work assignments) are developed as necessary. Selected observer providers bid on each task order.

- 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.

- 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.

- NMFS would need to develop an "Advanced Acquisition Plan" before awarding a contract. Each contract is different and the timeframe will be influenced by the monetary value and overall complexity of the contract. However, at a minimum, NOAA requires 224 days to write and award a contract valued from $100 thousand to $10 million and they require 239 days for a contract valued over $10 million. An advanced acquisition plan will be needed regardless of whether an IDIQ contract is chosen or not, because of the size and complexity of contracting for observer services. NMFS would need six months in advance of this schedule to prepare contract requirements.

- 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 award contracts to small businesses. Therefore, observer contract awards will most likely be to small businesses. Most existing observer providers are 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 will not consist of bidding on detailed work descriptions or task orders. Observer providers will 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.)

- Individual observer companies that are awarded an IDIQ contract with other observer companies are not *required* to compete for individual task orders. Individual task orders can be assigned to particular observer companies and the companies are obligated to do the work. However, NMFS recommends that each task order be competitively bid in order to keep costs as low as possible.

4.8.2 Additional tasks that lend themselves to contracting

Currently, as under the Preferred Alternative 2, the tasks necessary to operate the Observer Program are divided among NMFS, observer providers, and the fishing industry. NMFS trains observers, debriefs observers, and manages the information collected by observers. The observer providers recruit, hire, deploy, insure, and pay salaries of observers. They also compete with each other for industry business. Industry selects an observer provider to coordinate with their scheduling needs and supply observers to meet federally mandated observer coverage. They are also responsible for providing accommodations (room and board) to observers on their vessels, in their shore-side plants and on stationary floating processors.

Under a direct contracting system between NMFS and observer providers as proposed under Alternatives 3 - 5, there is an opportunity to shift some of the aforementioned responsibilities to the observer provider. NMFS intends to continue to train, debrief, and manage the information provided by observers, as these are essential data quality control steps and NMFS will remain responsible for program and contract design. But additional tasks, dependent on the contract scope, may be included in the contract. For example, a different deployment scheme could require the contractor to maintain a system to track vessels, so coverage decisions could be made by NMFS. Contractors could be directed to assign specific observers to specific vessels, fisheries, etc. For instance, NMFS may task contractors to match more experienced observers with vessels that pose more challenging sampling situations. Contractors could also take a larger role in the compiling and quality control of observer data. However, consideration must be given to possible conflict of interest concerns if the current pay-as-you-go model is applied to any segment of the industry, and any observer provider operates under both service delivery systems.

4.8.3 Contract design

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

NMFS expects that responses to an RFP for observer services would likely come from observer companies that currently provide observers to various NMFS observer programs around the country. NMFS recognizes that the existing observer provider companies are expert professionals in the field of supplying observer services, and because of this, the SOW in the contract will be as general as possible. NMFS feels that stipulating specific aspects of how to accomplish the work actually constrains creativity and responsiveness on the bidder's part and hinders the development of unique approaches to certain problems or aspects of the work. The total number of contractors, along with the division of duties between contractors and NMFS, will be dependent to some degree on the scope of the program chosen by

the Council and how the various fisheries evolve. However, NMFS envisions a minimum of two contractors and potentially more, dependent on the overall scope of the contract(s).

The scope of individual task orders would depend on the restructuring alternative. To design individual task orders, NMFS would account for logistical issues, unique fleet characteristics, and the geographical and temporal extent of fishing, etc. Developing task orders would be a complex process that would occur after a restructuring alternative has been selected by the Council and a group of contractors has been selected by NMFS under a contract. As mentioned previously, the Council selected **Alternative 2** (extension of the existing program) as its preferred alternative, therefore, this section, as well as the balance of section 4.8, 4.9, and 4.10 are not applicable to the either Alternative 1 (no action), or Alternative 2 (the preferred alternative) which constitute the complete choice set for the action under consideration in this RIR/IRFA.

4.8.4 Discussion of contract benefits

Managing an observer program through direct contracts between NMFS and observer providers offers advantages and disadvantages compared to the existing system. NMFS' perspective on the advantages and disadvantages of using a direct contract system is provided in the following two sections.

4.8.5 Contract Advantages

Government contracting for observer services is the norm for other NMFS observer programs, including the Alaska Marine Mammal Observer Program. The contracting process is objective, well defined, and provides for competition.

The following is a list of some of the advantages of direct government contracting:

- Professional contract management assistance and support from AGO.
- Contracting would replace most of the cumbersome regulatory processes used to manage observer providers under the current system. Contractors would be held accountable for their performance through the contract rather than through regulatory enforcement.
- The workload under any task order would be clear and would improve contractor efficiency and facilitate planning.
- The work required of the contractor could be changed, if needed, through issuing new task orders rather than through regulatory amendments.
- 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.
- Contractors would be directly responsible to NMFS for data quality and the work of observers.

4.8.6 Contract Disadvantages

- The market share of the work may be redistributed among contractors.

- Under Alternatives 3 and 4, NMFS would need to address complex issues detailed in Section 4.9 associated with implementing two different observer programs (one under a direct contract system and one under the status quo system of regulation).

- The development and management of contracts would require additional NOAA staff resources.

- Additional requirements would be placed on industry, such as providing advance notices of fishing schedules.

4.9 Issues and data quality concerns related to administering two separate programs under Alternatives 3 and 4

The following is a discussion of some of the implications of administering two separate programs under Alternatives 3 and 4. Under Alternatives 3 and 4, 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 in the alternative would continue to operate in the current "pay-as-you-go" system. Thus, Alternatives 3 and 4 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.

4.9.1 Data Quality Issues

Many factors influence the quality of data provided by observers. Some of these factors are independent of the service delivery model and/or may not be exacerbated under a hybrid program. These include such factors as observer access to catch (to allow for correct random sampling) and overall quality of observer training. These are outside the scope of this analysis. Other quality factors are directly attributable to aspects of the service delivery model. Since broad concern regarding observer data quality is highlighted in the Council's problem statement, the following discussion considers three such factors and provides a discussion on concerns relative to these factors under the current system, under a restructured program which is supported by a single direct-contract based service delivery model (Alternative 5) and under a program with two different models (Alternatives 3 and 4). These three factors are: 1) deployment of observers in less than 100% covered fisheries, 2) matching deployment complexity to the observer skill and experience level, and 3) managing contractor and observer performance to optimize overall data quality.

Deployment of observers in less than 100% covered fisheries

Under the current service delivery model, NMFS is unable to direct deployment of observers on vessels which are allowed to have less than 100% observer coverage. This leads to a number of data quality issues including bias associated with non-random placement of observers and inadequate coverage of some sectors. These concerns are problematic at present and are expected to become of increasing concern under options being considered for rationalization of GOA groundfish fisheries. As discussed earlier in this document, the cornerstone of a restructured observer program would be the ability of NMFS to determine where and when observers should be deployed in those sectors covered by the new service delivery model.

Matching deployment complexity to observer skill and experience level

Requirements for sampling by observers vary according to vessel, gear type, and target fishery. For example, monitoring and sampling onboard a pollock catcher vessel is straightforward, whereas sampling

on some of the small "head and gut" factory trawlers can be extremely challenging. Observer skill levels differ, and depend on experience and other factors. Observer effectiveness and efficiency, and overall data quality would be best served under a system which allows NMFS to develop observer skills progressively; first deploying observers in less challenging situations, or at locations where they can be mentored by experienced observers or NMFS staff. As observers become more experienced and skilled, they could then be deployed in more complex and challenging sampling environments and could, in turn mentor newly-trained observers. It is not possible to implement this approach under the current service delivery model (Alternatives 1 and 2). Under Alternatives 3 and 4, possibilities for implementing this approach would be more limited because those fisheries which are the easiest to observe would operate under a different service delivery model than many (or most) other fisheries. This approach can only be fully implemented under Alternative 5, which would provide the flexibility necessary to properly match deployment complexity with observer skill level in all observed fisheries, and to implement a mechanism to develop observer skills consistent with the overall requirements for observers.

Managing contractor and observer performance to optimize overall data quality

An effective service delivery model should provide incentives for contractors and observers to deliver high quality data and disincentives for failing to meet data quality standards. Provisions for terminating observers or contractors who demonstrate egregious violations of standards (or less drastic corrective action under less serious circumstances) would provide an important tool for use in unusual circumstances and would also, in itself, provide a powerful disincentive. Data quality is, to a large extent, dependent on the commitment, professionalism, and effectiveness of observers. NMFS would ensure that the necessary provisions are implemented in contracts established between NMFS and observer providers in a restructured program. NMFS is unable to implement these types of provisions under the current service delivery model (Alternatives 1 and 2) because there is no direct contract between NMFS and the observer providers. NMFS would also be unable to implement these types of provisions for sectors that continue to operate under the current service delivery model in a restructured program. Under Alternatives 3 and 4, observers and observer contractors who fail to meet data quality standards while operating under direct contract to NMFS would be subjected to penalties according to contractual provision. Those penalties could not, however, constrain their ability to act as observers or deliver observer services in fisheries where observer coverage and data quality is managed by regulation. Observers and contractors who fail to meet data quality standards in the restructured portion of the program could, therefore, be allowed to continue to provide these services in the remaining pay-as-you-go portion of the program. This possibility is not consistent with the goal of improving overall observer data quality. Table 4-21 identifies the degree to which each alternative addresses the three data quality factors.

Table 4-21 Comparison of the extent to which each alternative addresses data quality

Issue	*Alt. 1 No action*	*Alt 2. Rollover of existing program*	*Alt 3. GOA-based*	*Alt. 4 Tiers 3 & 4*	*Alt 5. Comprehensive*
Deployment of observers in <100% covered fisheries	Not Applicable	No Effect	Partial Effect	Full Effect	Full Effect
Matching deployment complexity with observer skills/experience	Not Applicable	No Effect	Partial Effect	Partial Effect	Full Effect
Managing Contractor/Observer Performance to Optimize Overall Data Quality	Not Applicable	No Effect	Partial Effect	Partial Effect	Full Effect

4.9.2 Administering a hybrid system under Alternatives 3 and 4

A hybrid system is one in which NMFS manages two different service delivery models for observer procurement, one based on Federal contracts (the contracted model) for observer services and the other implemented through regulations similar to those currently in place (the regulated model). Crossover issues refer to anything that is affected by interactions between the two different models for procuring observers. The following sections outline the potential interactions between the two models should both be used simultaneously in the groundfish fisheries.

Alternatives 3 and 4 would restructure the observer program for a segment of the fleet while maintaining the regulated model for another part of the fleet, thus creating a hybrid Observer Program. 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 very different fisheries in different areas.

Managing two different models simultaneously in the groundfish program could present challenges to NMFS, contractors, and fishery participants because they will operate in the same groundfish fisheries and there is the potential for the two models to overlap for individual vessels. NMFS has identified a number of crossover issues which could complicate a hybrid program. Detailed discussion of some of these crossover issues follows. It is likely that further crossover issues would be identified during implementation, should a restructuring alternative have been selected.

Financial Arrangements

Under the regulated model, the cost of placing observers is billed directly to the fishing industry as specified in contracts between observer providers and fishing companies. NMFS is not a party to the contracts and has no financial link with either observer providers or the fishing industry. Under the contracted model, the cost of placing observers would still be paid by the fishing industry but they would pay it in a fee to NMFS. NMFS would then be a party to a direct contract with an observer provider (contractor) who would bill NMFS for the services they provide, including such costs as observer and staff salaries, travel, and housing. Thus, NMFS would have a financial link to both fishing industry and observer providers.

Under a hybrid program, some contractors may be providing observers under both models. NOAA General Counsel has advised that there is nothing inherently wrong with a hybrid system, but that the contractors may need to build in their own internal controls to ensure they are able to comply with requirements of each model. This may lead to inefficiencies by adding operational and managerial costs.

Logistical Concerns

Under a program in which there are two different models (direct contracts versus manage through Federal regulation), there could be logistical issues should a fishing operation move from one to another.

From a fishing industry perspective, moving from one model to another could require a change of contractors, a change in the observer, and a change in the payment mechanism. For example, under Alternative 3, vessels in the GOA would be under the contracted model and vessels in the BSAI would be under the regulated model. A vessel moving from the GOA to the BSAI may have to go to port,

disembark their current observer, and obtain an observer from a different a provider under the regulated model. They would pay an ex-vessel fee for coverage in the GOA but would now pay the new contractor directly for coverage in the BSAI. This is one of several possible outcomes.

From a contractor'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 redeploying them back to the GOA.

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. 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).

Certification/Decertification Needs

Under the status quo (regulated model) in Alternative 1 and 2, NMFS issues certifications (permits) to observers and observer providers. The certifications establish a right to work and the holder is accountable to NMFS through regulation. A component of those regulations establishes agency processes for removing certifications. NMFS has identified several problems with this model for controlling the quality of observer providers, observers, and observer data.

Under the contracted model, proposed under Alternatives 3 – 5, NMFS does not need to maintain the concept of certification, the processes of decertification, or the maintenance of extensive regulations governing observers and observer providers. Instead, quality would be controlled by contractual provisions with the burden to correct performance issues placed on the contractor. There are several mechanisms available in contracting to address poor performance such as withholding quality bonuses or payments, or ultimately, loss of the contract.

Under a hybrid program (Alternatives 3 and 4), the work performed by observers and contractors would be evaluated only under the model in which it was performed. If an observer or contractor performed poorly under the contracted model, NMFS could employ contract provisions to improve performance or discourage future employment of individuals, or future contracts with the contractor. However, those same poor performers could continue to work under the regulated model.

NMFS contends that direct contracts offer better tools for controlling poor observer and observer contractor performance than the status quo (managing by regulation). Conceivably, there could be a migration of observers who perform poorly to fisheries still operating under the status quo regulated model. Many factors could influence this potential outcome including individual contractor standards for employees and collective bargaining agreements.

Confidentiality Requirements

On January 12, 2007, the President signed the Magnuson-Stevens Fishery Conservation and Management Reauthorization Act (Pub. Law No. 109-479). New confidentiality provisions at Section 402(b)(2) state that:

(2) Any observer information shall be confidential and shall not be disclosed, except in accordance with the requirements of subparagraphs (A) through (H) of paragraph (1), or—

(A) as authorized by a fishery management plan or regulations under the authority of the North Pacific Council to allow disclosure to the public of weekly summary bycatch information identified by vessel or for haul-specific bycatch information without vessel identification;

(B) when such information is necessary in proceedings to adjudicate observer certifications; or

(C) as authorized by any regulations issued under paragraph (3) allowing the collection of observer information, pursuant to a confidentiality agreement between the observers, observer employers, and the Secretary prohibiting disclosure of the information by the observers or observer employers, in order—

(i) to allow the sharing of observer information among observers and between observers and observer employers as necessary to train and prepare observers for deployments on specific vessels; or

(ii) to validate the accuracy of the observer information collected.

Thus, under the status quo regulated model in Alternatives 1 and 2, service providers are only authorized to view confidential fisheries information in order to allow sharing of obserever information necessary to train observers, or to validate the accuracy of observer data. They obtain logistical information from the industry they work with rather than from NMFS, and they are unable to view the confidential data collected by observers.

Under the direct contract model (Alternatives 3 – 5), NMFS is authorized to treat contractors like Federal employees and provide them access to confidential fisheries information. They would likely need confidential fisheries information to enable them to conduct efficient logistics. However, the confidential fisheries data could not be used to support the component of the program implemented through regulations. NMFS would need to ensure that safeguards exist so that confidential data are not used in violation of the Magnuson Stevens Act. In addition, the contractor would be able to view the confidential data collected by their observers. NMFS could also require the contractor to review the data collected by their observers as a quality control measure prior to submission to NMFS.

Under a hybrid program (Alternatives 3 and 4), there are two ways the different requirements for each model could be met. First, contractors operating in both models could establish internal controls that ensure the confidentiality requirements are met under each model. In essence, they could keep business in one model separate from business in the other. These efforts would add to the contractor's internal complexity and increase administrative overhead 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: 1) add to the administrative cost of implementing the contracted model because the contractor would have to obtain detailed logistical information from industry rather than from NMFS, and 2) decrease the contractor'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 the benefits of moving to a contracted model.

Flexibility of operational rules and procedures

Under the status quo regulated model (Alternatives 1 and 2), NMFS manages observers and observer providers through Federal regulations. Regulations are cumbersome to change and the process is labor intensive. In general, regulations work well in a static environment but they are not amenable to a dynamic environment.

Under the direct contract model (Alternatives 3 – 5), NMFS would manage observers and observer providers through contracts. Contracts can be modified on a tight schedule, though there are cost implications. Contracts can also be modified by periodic revisions to task orders and statements of work, requiring minimal work compared to regulation changes. In general, contracts allow more flexibility to respond to changing fisheries management programs and requirements.

Under a hybrid program (Alternatives 3 and 4), there would be potential for an evolving diversion of Observer Program operating rules and procedures between the contracted model and regulated model. This is because contracts could be modified to meet changing data needs relatively easily, but regulatory changes would not likely be able to keep in synchronization with the contracts.

Clarity in responsibilities and level of complexity

Under the status quo regulated model (Alternatives 1 and 2), service providers and industry must comply with rigid coverage requirements and other regulations. The burden is on the fishing industry to obtain required coverage.

Under the direct contract model (Alternatives 3 – 5), the contract establishes observer service provider requirements. The fishing industry would still need to comply with regulations which would be reduced in some areas (coverage requirements) and increased in others (reporting requirements possibly). The fishing industry would be required to take observers upon request but they will not need to track compliance with specific coverage requirements.

Under a hybrid program (Alternatives 3 and 4), 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 Alternative 3, a company with fishing vessels operating in both the BSAI and GOA would follow one set of regulations in the GOA with fees and likely revised reporting responsibilities, and would be assigned to work with a contractor selected by NMFS. In the BSAI, these same vessels would have a different set of regulations, and pay for observers directly to a permitted observer provider of their choice. The example notes the potential for a fishing company to have to work with two different observer providers at the same time.

Observer Contractors. A contractor has the potential to work under both the contracted and regulated model at the same time. The contracted model will have contract requirements where the regulated model will be governed by regulations. This will increase the potential for confusion and error because each model is complex, and combined they are increasingly complex. The contracted model may require specific placement of certain observers or 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. Operating under two models also

increases the complexity of payroll bookkeeping (see labor cost inequities below) and the tracking of observer experience and credentials relative to regulations and contract requirements.

NMFS. Some operations within the Observer Program have the potential to become progressively more complex and therefore administratively more burdensome and inefficient under a hybrid model. For example, depending on the model they are working under, observers may or may not receive a formal NMFS certification, although they may receive the same training. This would require NMFS to use different procedures to address observers with poor job performance. This is one of many examples of different internal processes which would be used under the different models. NMFS would need to maintain expertise in the details of regulations and develop expertise in managing contracts.

Observers. An observer may face different obligations and responsibilities under contract with the observer provider, depending on whether they will be working in a regulated or contracted model. Pay structures could be different, vessel or plant assignments may vary depending on the model they are working under, and repercussions for poor job performance may vary.

Labor cost inequities

Under the regulated model (Alternatives 1 and 2), there are five currently active observer providers. Three of them operate under a union agreement and two do not. Because these contractors 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 (Alternatives 3 - 5), NMFS would expect labor cost increases due to invocation of the Service Contract Act (SCA), which establishes a base wage and requirements for fringe benefits.

Under a hybrid program (Alternatives 3 and 4), two different salary and benefits 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 contractors, individual observers, and in any collective bargaining agreements.

Summary

NMFS is committed to working with the industry and other agency entities to address hybrid program issues under Alternative 3 or 4. In order to maintain the integrity of the overall program under these two alternatives, NMFS could administer and manage each model independently and minimize any overlap between them. Regardless, operating two models will likely result in increased agency administrative costs because NMFS will need to maintain different staff skill sets. For example, the agency would need contract development and management expertise, as well as expertise in regulation development and monitoring. Contractor administrative costs could also increase because of the need to maintain different administrative systems for the two different models. In short, a hybrid system will incorporate inefficiencies because of the need to run two separate models with different authorities and management controls. Whether the expected benefits accruing from a hybrid program exceed the costs imposed through these (and perhaps other) inefficiencies is a matter that must await analysis under some future restructuring action. It has no bearing on the present action.

4.10 Enforcement issues

The role of NMFS Enforcement in enforcing observer regulations will change dramatically under all of the restructuring alternatives. Under the current program, NMFS Enforcement has several primary

observer-related enforcement duties. The following duties would continue under **Alternative 2 (preferred alternative; extension of the existing program)**:

- *Enforcement of 30%, 100%, and 200% coverage requirements for vessels and processors.* Because the owners and operators of vessels and processors are responsible for obtaining their own coverage, the opportunity exists for vessel operators to evade their required coverage. This opportunity is greatest in the 30% fleet, because it is not possible to determine whether a particular vessel or processor has violated a coverage requirement until the end the quarter, and then only by a comprehensive audit of vessel fishing logs and observer coverage reports. In the 100% and 200% coverage fleets it is immediately obvious if a vessel is violating a coverage requirement, because NMFS would be receiving catch reports from a vessel that has no observer on board.

- *Enforcement of recordkeeping and reporting requirements.* While many record keeping and reporting requirements do not directly relate to observer coverage, vessel reports of fishing activity are generally used to determine if the vessel is in compliance with coverage requirements.

- *Enforcement of regulations governing the treatment of observers by vessel operators and crew.* NMFS has strict regulations addressing harassment and interference with observers. NMFS Enforcement plays a leading role in ensuring that observers are protected from harassment and interference.

- *Investigation of reports of fishing violations made by observers.* During the course of a fishing year, the hundreds of observers deployed off Alaska generate numerous affidavits reporting violations of fishing regulations and other marine conservation regulations such as MARPOL. NMFS Enforcement spends a considerable amount of time prioritizing, investigating, and taking action on these reports by observers.

Under Alternative 3, vessels and processors in the GOA and all halibut vessels would no longer be responsible for obtaining their own observer coverage. Likewise, under Alternative 4, all vessels categorized in Tiers 3 and 4 (less than 100% observer coverage) would no longer be responsible for obtaining their own observer coverage. Instead, vessels in the Tier 3 and 4 fisheries would be required to carry observers when requested to do so by NMFS. Therefore, Enforcement would no longer need to track coverage levels on individual vessels to determine if the required coverage is being met. While this would relieve NMFS Enforcement of one significant observer related duty, the restructuring alternatives introduce their own enforcement issues. The following issues are associated with Alternatives 3 - 5:

- *Enforcement of the requirement that a vessel carry an observer when requested to do so by NMFS in Tier 3 and Tier 4 fisheries.* In these fisheries, the majority of vessels are likely to be fishing without observers while NMFS directs coverage to certain vessels based on the agency's sampling plan and priorities. At some point, specific vessels may resist requests by NMFS to carry observers, at which point NMFS enforcement may be required to take action.

- *Enforcement of check-in/check-out requirements and/or electronic fishing log reporting requirements.* Effective deployment of observers in Tier 3 and Tier 4 fisheries would require that NMFS receive accurate information from each vessel owner or operator about when and where the vessel would fish. Enforcement actions may be necessary when vessel operators fail to report in a timely and accurate manner.

Under all of the alternatives but Alternative 1, NMFS Enforcement would need to continue enforcing regulations protecting observers from harassment and interference, and would continue to investigate reports of fishing violations by observers. These enforcement-related tasks are unlikely to change significantly under the restructuring alternatives relative to the status quo.

4.11 Conclusions and summary of the benefits and costs of the alternatives

The benefits and costs of Alternatives 1 and 2 are described below. The benefits and costs of Alternatives 3-5 cannot be compared in a quantitative manner, because the actual costs of the proposed restructuring alternatives (Alternatives 3 – 5) cannot be determined until a variety of labor issues are resolved (see Section 4.4). Furthermore, all of the benefits of the proposed action are qualitative or distributional in nature (e.g. improved data quality, sharing of costs). Nevertheless, a variety of qualitative conclusions can be drawn with respect to the benefits and costs of the alternatives.

4.11.1 Benefits and costs associated with Alternative 1

Alternative 1, the no action alternative, would result in the sunset of the North Pacific Groundfish Observer Program on December 31, 2007. Under Alternative 1, the observer program established under subpart E of 50 CFR 679 would expire. These regulations include all observer coverage requirements for groundfish vessels and processors in the BSAI and GOA, requirements that vessels and processors accommodate observers in safe conditions, requirements that vessels and processors allow observers to use communications equipment for reporting to NMFS, requirements and responsibilities for observer providers, requirements governing observers themselves in the conduct of their duties, procedures for the certification and decertification of observers, and a host of other regulations necessary for the operation of the Observer Program.

Absent Federal regulations, NMFS contends that the observer program could not function and would be forced to cease all groundfish observer operations in the North Pacific as they are currently structured. It is theoretically possible that some vessels and processors could choose to continue to carry some form of observer on a voluntary basis after the expiration of the program at the end of 2007. However, absent regulations governing the conduct of vessels, observer providers, and observers, NMFS would most likely be unable to utilize these data as they are currently used. Therefore, the most realistic scenario under Alternative 1 is that the Observer Program would effectively cease to exist as a data collection program.

Alternative 1 would result in significant costs to both industry and the environment and would leave NMFS in violation of various statutes that mandate observer coverage in the North Pacific. Without data collected by observers, NMFS would be forced to adopt a much more conservative approach towards managing the groundfish fisheries of the GOA and BSAI. Such an approach could include closing fisheries much earlier, in the absence of observer data on groundfish catch and PSC bycatch to prevent exceeding TACs and PSC limits, and using more conservative population models to generate ABCs and TACs in the absence of observer data for use in stock assessment modeling. Given that the total cost of the observer program is about 1.66% of ex-vessel value in the GOA and BSAI, these types of precautionary management measures could cost the industry many times more revenue in lost fishing opportunities than the observer program costs. In addition, the failure to maintain a groundfish observer program in the North Pacific would violate the terms of a variety of statutes, including the ESA, under which observer coverage has been mandated as part of RPAs to prevent various groundfish fisheries from jeopardizing endangered marine mammals, salmon, and sea birds. Absent observer coverage, many of the groundfish fisheries could be found in jeopardy and subject to closure under the ESA. The costs of

widespread ESA-mandated fishery closures across the North Pacific would exceed the costs of maintaining an observer program by orders of magnitude.

Many commercial fisheries throughout the United States operate without observer programs, and it is certainly possible to speculate as to what the North Pacific groundfish fisheries would look like without an observer program. However, the groundfish fisheries of the North Pacific would likely be drastically changed from the status quo.

The following is a very preliminary and speculative assessment of what the North Pacific groundfish fisheries may look like without an observer program. The effects of allowing the observer program to expire under Alternative 1 are divided into two general types of effects: (1) general effects that would impact all fisheries, and (2) effects specific to certain fisheries or management programs.

General effects impacting all fisheries

Some of the general effects of allowing the observer program to expire under Alternative 1 include:

- **Disruptions to stock assessment modeling and the TAC-setting process.** Stock assessment biologists use a variety of data sources in their stock assessment models including data collected during NMFS surveys and fishing and processing data collected and reported by industry. However, data collected by observers is the most comprehensive and reliable information available to stock assessment biologists on the commercial fishery. Stock assessment authors rely on a wide variety of observer data including species specific catch and bycatch information and the collection of biological information such as length frequencies and otoliths used for age and growth studies. The loss of such observer data would force stock assessment authors to undertake wholesale changes to their stock assessment modeling approaches. One likely result would be more conservative models with lower ABCs and overfishing levels, to account for the greater uncertainty that would result from the loss of observer data. It is reasonable to conclude, therefore, that the loss of the observer program would force the adoption of more conservative TACs across the board in most groundfish fisheries. The current cost of the observer program to industry is estimated at 1.66% of ex-vessel value (Table 4-11 and Table 4-12). If lost fishing revenue due to TAC reductions resulting from a lack of observer data exceeded 1.66% of ex-vessel revenue, TAC reductions would outweigh the savings to industry from not having to pay for observers.

- **Disruptions to the inseason management of TACs**. Observer data is one of the primary sources of inseason management data used by NMFS inseason managers to determine when to close fisheries when quotas have been reached. Without observer data, inseason managers would be forced to rely solely on industry-supplied catch and processing reports, which may not be as timely or accurate a measure of total catch as observer data in many fisheries. Without observer data, NMFS inseason management would likely be required to take a more conservative approach to quota management and many fisheries could be closed earlier for precautionary reasons. In some instances, short-term fisheries with high effort relative to the size of the quota might simply remain closed if observer data is unavailable.

- **Disruptions to the PSC management regime.** NMFS is almost entirely dependent on observers for monitoring crab, halibut, salmon, and herring bycatch in the groundfish fisheries off Alaska. Without observers, NMFS would have relatively little information on the rates of PSC bycatch in most of the groundfish fisheries off Alaska. NMFS and the Council would be forced to re-evaluate their approach to PSC management and likely either abandon attempts to regulate PSC in the groundfish fisheries, or severely restrict fishing in the groundfish fisheries that are PSC-

limited to prevent exceeding PSC catch limits. If NMFS and the Council chose to abandon the current PSC management regime, the expected increases in crab, salmon, halibut, and herring bycatch could have negative effects on the health of those stocks, to the detriment of the directed fisheries for those species. If the Council and NMFS decided to further restrict fishing to prevent exceeding PSC limits, then, for example, most bottom trawl and hook-and-line fisheries would need to be curtailed to some degree relative to their current levels to ensure that halibut PSC limits are not exceeded. Furthermore, the AFA pollock fishery would likely be subject to greater restrictions to prevent exceeding salmon PSC limits. The economic effects of these restrictions to industry could greatly exceed the current cost of the observer program.

- **Elimination of observer baseline data.** The observer program provides baseline data on groundfish fishing activity that supports the development of management measures for the groundfish fisheries off Alaska by the Council and NMFS. Baseline observer data are also used to evaluate the health and effects of fishing habitat and protected species, such as seabirds and marine mammals. Observer data were used to some extent in the development of most of the management measures and FMP amendments developed by the Council since its inception under the MSA. The ability of the Council and NMFS to make informed decisions about future management measures and FMP amendments would be severely impaired by abandonment of the observer program.

Some of the effects of allowing the observer program to expire under Alternative 1 on specific fisheries and management programs include:

- **Fundamental changes to Steller sea lion protection measures in the cod, pollock and Atka mackerel fisheries.** The suite of measures designed to protect endangered Steller sea lions and their critical habit in the Pacific cod, Atka mackerel, and pollock fisheries off Alaska is heavily dependent on observers. This is especially the case in the Atka mackerel and pollock fisheries, where observer data are used to monitor the levels of fishing inside and outside critical habitat. Without observers to monitor fishing activity inside critical habitat, NMFS could be forced to severely curtail or eliminate fishing entirely within critical habitat or Steller sea lion protection zones. NMFS would also be unable to monitor vessel-specific fishing activity inside Steller sea lion protection zones in the AFA pollock fishery. This could mean the closing of critical habitat areas to fishing altogether, or some type of more restricted fishing operations in critical habitat that could be regulated without observers. It is not possible to speculate as to the scale and nature of such changes, but it would certainly require the re-initiation of consultation on the effects of the fisheries on endangered Steller sea lions.

- **Fundamental changes to cooperative management of individual cooperative fishing quotas in the AFA pollock fishery.** All three sectors of the AFA pollock fishery currently operate under a system of individual vessel cooperative fishing quotas, in which each vessel can fish its own cooperative's quota in the manner that it finds most efficient and profitable (*within limits*). In addition, the trading of quota within and among cooperatives has allowed the most efficient vessels to fish the bulk of the pollock quota and the least efficient vessels to be retired from active participation. Without observers to monitor catch and delivery amounts by individual vessels and processors, it is unlikely that NMFS would be able to accommodate this system of co-op management. Instead, NMFS would likely be forced to return to aggregate management of the pollock fishery, where weekly production reports are used to generate fleet-wide estimates of pollock catch. Vessels would no longer be able to fish their own individual quotas in the manner they see fit, but would be forced back into a race-for-fish among all the other AFA participants in the fishery. The costs to the pollock industry of returning to a race-for-fish would be enormous,

and would greatly exceed any individual vessel savings resulting from the lack of an observer program.

- **Fundamental changes to individual group and individual vessel CDQ quota management.** The effects of the expiration of the observer program on the CDQ fisheries would be similar to that in the AFA pollock fishery. NMFS could still manage some level of CDQ fishing without observers, through what would in effect be a smaller-scale race for fish among the CDQ participants. However the value of CDQ on the open market would likely be reduced, because CDQ groups would be unable to guarantee their CDQ partners the ability to catch specific amounts of CDQ if they are forced to compete with all other boats in the fishery for the same CDQ. The economic effects on the CDQ groups, their fishing partners, and the CDQ communities the groups represent would be enormous.

- **The IR/IU program would not be enforceable.** Enforcement of the IR/IU program, and any additional future retention requirements under BSAI Amendments 79 and 80, are dependent almost entirely on observers. Without onboard observers to document fishing and processing activity, effective enforcement of full retention requirements would not be possible.

The above summary of potential effects of allowing the Observer Program to expire are speculative and intended only to provide a broad assessment of the magnitude of changes that could be possible under Alternative 1. Clearly, such severe measures would require NMFS and the Council to do a detailed and comprehensive examination of all fisheries in which observers are currently deployed, to determine the extent to which groundfish fishing could continue without an observer program and under what circumstances. However, even the most cursory examination suggests that the costs to industry, in the form of lost fishing opportunities under Alternative 1, would greatly exceed the current costs of the observer program.

4.11.2 Benefits and costs associated with Alternative 2 (preferred alternative)

Alternative 2 (Council preferred alternative) would result in the indefinite extension of the existing observer program. This alternative is likely the only viable alternative in the short-term, given the unresolved labor issues and statutory obstacles to moving forward with restructuring under Alternatives 3 through 5. However, this alternative would not achieve some of the objectives outlined in the problem statement, such as improvements to data quality and the reduction of disproportionate observer costs born by many small vessel operators. In sum, Alternative 2 would not achieve all of the objectives of the problem statement, although it would meet the fundamental concern in the problem statement of continuing the observer program beyond its current expiration date of December 31, 2007.
Alternative 2 would continue to provide the North Pacific groundfish fisheries with the benefits of the observer program, without which the costs identified under Alternative 1 would be incurred. The benefits of observer coverage to the government, industry, and public are substantial. Through observer coverage, NMFS obtains accurate information upon which to base management and conservation decisions, which may increase economic opportunities for industry. The public receives unbiased information about the use of a public resource that would otherwise occur outside the pubic view. These benefits include:

- **Estimates of takes of protected species.** Marine mammals and sea birds are protected by a variety of treaties and statutes aimed at minimizing potential negative interaction with fisheries and other human activities. Chief among these statutes are the Marine Mammal Protection Act and the Endangered Species Act. Observers are necessary to collect data on marine mammal and

seabird interactions with the fishing fleet to insure that protected species are not adversely impacted by fishing activity.

- **Prohibited species catch.** Many groundfish fisheries in the North Pacific are limited by bycatch of crab, salmon, halibut, and herring, as much, if not more so, than by the harvest of target species. Observers are currently the only reliable method through which prohibited species catch data can be collected in most North Pacific fisheries. Without observers, the catch of prohibited species could not be managed in an effective manner.

- **Estimates of discards of fishery resources.** In fisheries that sort at sea, catches brought aboard are mainly sorted for marketable species and sizes, with the unwanted or non-marketable portion of the catch discarded at sea, if allowed. Discards occur because prohibited or low-valued species are caught along with the marketable species sought. In some fisheries, large catches of undersized commercial species also occur and result in substantial quantities of the species catch being discarded. Accurate stock assessments require that all harvests due to the fishery, either as landings or discards, be accounted for. Measuring the effects of fishing activities on the ecosystem also requires information on catches of all species, even if they are discarded. Observer sampling provides the most reliable method currently available of acquiring data on the quantity and species composition of discards. With these data, it is possible to better understand the effects of fishing and to estimate the potential biological and economic benefits of changes in conservation and management measures (i.e., minimum legal sizes, trip quotas for individual species, etc.).

- **Management of quota-based limited access programs.** Observers are an essential element to the management of several quota-based limited access programs in the North Pacific, including the AFA pollock fishery, in which observers monitor individual co-op quotas, and the CDQ fishery, in which observers monitor individual CDQ allocations. Without the haul-by-haul data collected by observers on vessels and processors in the AFA and CDQ fisheries, NMFS would be unable to manage the individual vessel quotas upon which the functioning of AFA cooperatives and CDQ groups are based. Without observers, these rationalized fisheries could not operate as presently designed.

- **Biological sampling of the catch.** Scientific observers aboard fishing vessels also collect spatially explicit biological samples of the catch. Size and age samples and other observations taken at sea (e.g., sexual maturity) are often not obtainable by sampling dockside landings, or if so, samples may be biased towards legal sizes or valuable species. For fisheries that have extensive at sea sorting, size and age samples of discards permit the estimation of discard size age composition, which often differs considerably from that in the landings. In most cases, discard of marketable species are of small fish, although damaged legal-sized fish may also be discarded. Because observer sampling occurs throughout the year, the program affords an opportunity to collect samples of fish gonads and other parts to study seasonal cycles of sexual maturity and growth that may be difficult to discern during annual survey cruises that occur at only one time during the year.

- **Design and monitoring of conservation gear.** Reduction in discards of finfish and protected species has been attempted using a variety of methods, including the development of more selective fishing gear. The development and deployment of such gear requires testing (i.e., to ensure the gear can be safely and efficiently used) and validation (i.e., to ensure this gear is having the intended effect). Observer data can provide important information about the use and effectiveness of fishing gear.

- **Monitoring of experimental fisheries.** Experimental fisheries have frequently occurred in the North Pacific when industry has sought to test fishing gear under controlled conditions, or develop fisheries that conflict with current regulations. Observer data gathered during experimental fisheries provides important objective information on the effectiveness of the gear or fishing strategy being tested.

- **Gear performance and characteristics.** To support research, scientific observers that are deployed aboard commercial vessels can be requested to make detailed measurements of various attributes of the fishing gear, including how it is rigged and deployed. These measurements can be important for two reasons. First, by noting variables, such as mesh size, number of hooks, gangion length, time of trawl tow, etc., in relation to the catch attributes (quantity, species composition, size distribution) it is possible to conduct statistical analyses of the factors that result in high (or low) rates of discard, impacts on species mix, changes in catch rate, etc. Second, gear performance observations, when collected over time, can be used to better calibrate catch-per-unit-effort abundance measures. For example, if the average size of nets, duration of tow, ground-cable length, etc., increase over time, these may have a direct effect on catch per day fished by the fleet (even for same sized vessels). Given sufficient information, these factors can be included in research assessment analyses to provide a more complete and accurate picture of fishing intensity and effectiveness.

- **Communication with fishermen.** Observer programs provide a channel for communication between fishermen, fishery scientists, and managers. The program is an important link between NMFS and fishermen. Ideas, complaints, and information communicated between the observer(s), captain, and crew are a valuable source of information for all parties.

4.11.3 Benefits and costs associated with Alternatives 3 - 5

Alternatives 3 and 4 present two distinctly different approaches to partial restructuring of the Observer Program. The scope of Alternative 3 is based on geographic area. Under Alternative 3, all groundfish fisheries in the GOA and all halibut fisheries throughout Alaska would be covered by the new program, in which vessels would pay an ex-vessel value based fee and NMFS would directly contract for observer services. By contrast, Alternative 4 is based on coverage levels irrespective of geography. Under Alternative 4, all vessels and processors assigned to Tiers 3 and 4 (less than 100% coverage) would be covered by the new program, and pay an ex-vessel value based fee, while all vessels and processors assigned to Tiers 1 and 2 (100% or greater coverage) would continue to operate under the existing pay-as-you-go system. Alternative 5 would include in the new program all vessels and processors operating in the North Pacific groundfish and halibut fisheries. NMFS would contract directly for observer services. Vessels and processors assigned to Tiers 3 and 4 (less than 100% coverage) would pay an ex-vessel value based fee, and vessels and processors assigned to Tiers 1 and 2 (100% or greater coverage) would pay a daily observer fee.

In addition to the general benefits of the Observer Program outlined under Alternative 2 in Section 4.11.2 above, a partially or fully restructured program under Alternatives 3 - 5 would have additional benefits which are outlined below.

Addressing the problem of disproportionate coverage costs

Alternatives 3 - 5 are the only alternatives that address the problem identified in the problem statement of disproportionate coverage costs purportedly faced by many small vessels. Under Alternatives 3 - 5, all

vessels in Tiers 3 and 4 fisheries would pay an ex-vessel value fee, meaning that coverage costs would be distributed across the fleet based on each vessel or processor's economic benefit derived from the resource. Note, however, that Alternatives 3 – 5 do not address the problem of disproportionate costs faced by vessels and processors in Tiers 1 and 2 fisheries. The majority of the Tier 1 and 2 fisheries are large CPs, motherships, and shoreside processors for whom observer coverage is not a large percentage of their fisheries derived revenues. However, smaller CPs, especially hook-and-line and trawl CPs <125' would continue to face proportionally higher relative coverage costs under all of the alternatives. The coverage costs these vessels and processors currently pay are displayed in Table 4-11 and Table 4-12. Due to the uncertainties associated with wages under the restructuring alternatives, it is impossible to estimate the exact costs of coverage for any vessels or processors under these alternatives. However, for Tier 1 and 2 vessels under Alternatives 3 – 5, the costs of coverage are not expected to be any lower than those displayed in Table 4-11 and Table 4-12, and they could be substantially higher.

Improving data quality and reducing sources of bias

Under the existing observer program, vessels required to carry observers 30% of their fishing days choose when and where to carry observers, provided that they meet the minimum coverage requirement of 30% of fishing days per quarter and at least one observed fishing trip for each target fishery. Many vessel owners prefer to carry their required coverage later, rather than earlier during each quarter, for several reasons. First, when vessels carry observers later in the quarter or fishing season they may have a better idea of how many coverage days will actually be needed to meet the regulatory requirement than vessels carrying observers during the start of a fishing season. Therefore, vessels carrying observers later in each quarter or season are better able to avoid exceeding their coverage requirement. Second, some vessel owners may prefer to carry observers later in each quarter so that they can first earn revenues required to pay for observer coverage and other expenses.

The preference for coverage later in each quarter is tempered to some extent by observer providers who have observers under contract and must keep observers deployed in order to minimize unpaid downtime. Consequently, there is a constant give and take between observer providers and vessel owners in the existing 30% coverage fleet regarding when and where to carry observer coverage. However, these sorts of coverage decisions are generally driven by the observer provider's desire for efficiency and the vessel owner's desire for predictability, with little or no regard given to scientific or management objectives. This is because NMFS does not decide when and where observers are deployed in the 30% coverage fleet. Because catch and bycatch rates fluctuate by season and area, decisions about when and where to deploy observers in the 30% coverage fleet have the potential to greatly affect the quality and reliability of observer data.

Under Alternatives 3 - 5, NMFS would take a lead role in deciding when and where to deploy observers and how much coverage is necessary for each Tier 3 fishery. NMFS would also have the ability to better match observers' skills and experience to their deployment in all fisheries, whether they are less than 100% covered (Tiers 3 and 4), or at least 100% covered (Tiers 1 and 2). For the first time, fishery managers will be able to address these and other known sources of bias, to the benefit of the resulting data.

Recent examinations of the North Pacific Groundfish Observer Program have focused on operational aspects of the program and have dealt with such issues as sampling protocols, reducing bias, estimate expansion, and the statistical properties of estimates (e.g. Jensen et al. 2000, Dorn et al. 1997, Volstad et al. 1997, Pennington 1996, and Pennington and Volstad 1994). These and other studies suggest that sources of bias can be reduced and the statistical reliability of observer data improved through the manner in which observers are deployed. In particular, improvements are realized by changing from the current

system, in which 30% coverage vessels can choose when and where to take observers, to a new system in which NMFS is responsible for distributing observers among vessels in a more statistically sound manner.

Targeting coverage to address data needs

A second benefit to a restructured program for Tier 3 and 4 fisheries is the ability of NMFS to target coverage to address specific data needs. Under Alternatives 3 - 5, fishery managers would have the flexibility to adjust coverage, as necessary, to fill data gaps and address specific conservation or management issues for fisheries included in the new program. For example, if questions arise about catch or bycatch by vessels operating in a specific area or time of year, NMFS would have the ability to direct observers onto specific vessels or into specific areas to address those questions. In addition, because NMFS would have greater control over the deployment of specific observers, observers could be directed and trained to engage in more specialized data collection or research than is possible today. These types of specialized projects could include more intensive data collection on specific species or species groups, data collection on gear performance and gear interactions, and more intensive data collection on interactions with marine mammals and other protected species.

Conclusions related to Alternatives 3 and 4

Table 4-22 compares the advantages and disadvantages of these two separate approaches for partial restructuring. As is the case for Alternative 2, neither Alternative 3, nor 4, would completely address all of the issues in the problem statement. Nonetheless, it is possible to draw some conclusions about the differences between these latter two approaches.

From an operational standpoint, the advantage of Alternative 3 is that it would allow NMFS to develop scientific-based sampling plans for specific fisheries in the GOA, and implement them with single contracts that would govern all coverage in each fishery. Under Alternative 4, NMFS would only have direct control over deployments on the Tier 3 and 4 vessels in each fishery and would be less able to develop efficient approaches to the deployment and rotation of observers within a 100% or 200% coverage fishery. For example, NMFS would not be able to direct deployments of observers on these vessels based on observer experience. However, Alternative 4 would better address concerns about the disproportionate costs faced by the operators of smaller vessels, because it would extend the program to all Tier 3 and 4 fisheries in the BSAI as well as the GOA. Alternatives 3 and 4 therefore represent a tradeoff between maintaining a more comprehensive program for the GOA, and addressing the problem of disproportionate costs for a wider range of vessels in the BSAI and GOA. Furthermore, both Alternatives 3 and 4 raise a variety of issues associated with the administration of two separate programs. These are discussed in detail in Section 4.9.

Table 4-22 Comparison of the advantages and disadvantages of the approaches in Alternatives 3 and 4

Issue	*Alt 3 (GOA-based)*	*Alt 4 (Coverage level-based)*
Sampling design and data issues	Because fisheries are generally managed by area rather than size class, Alternative 3 would allow NMFS to design a complete sampling and data collection program for each GOA fishery and work with a single contractor in the collection of all observer data for that fishery.	Under Alternative 4, NMFS would be dealing with multiple contractors and would have control over observer deployments for a subset of vessels in each fishery in which Tier 1 and Tier 2 vessels participate. This will make it more difficult to design observer rotations for fisheries in which vessels from different tiers participate.
Cost-containment and contract efficiency	Geographic-based modules are likely to be simpler to design and bid on, because observer providers will be bidding on exclusive contracts to provide coverage for a specific geographic area or port. There also exists increased potential for cost containment if observer providers can focus on discrete geographic areas or locations, because there will be reduced down time and transportation costs if observers do not need to be rotated between geographic regions.	Observer providers may find it more difficult to bid on contract modules that are focused on vessel size classes or coverage tiers, rather than geographic areas, because they may not have adequate advance knowledge of where the group of vessels they are bidding on will be fishing and out of which ports they will be operating. A contract in which an observer provider is responsible for limited coverage of vessels across a broad geographic area may also increase costs, due to increased down time and transportation costs during observer rotations.
Disproportionate costs for smaller vessels	Alternative 3 would address concerns about disproportionate costs for GOA vessel only. It would not address concerns about disproportionate costs paid by small vessels operating in the BSAI.	Alternative 4 would address the issue of disproportionate costs for all vessels operating in Tiers 3 and 4, regardless of where they are operating in Alaska.
Complications with crossover issues and the management of two separate program:	Contracting complexities and crossover issues could arise for vessels that are moving between the GOA and BSAI under Alternative 3. These could be mitigated to some extent, if subcontracting was allowed, although this may increase transactions costs, and if the same observer providers who earn contracts in the GOA are allowed to provide coverage in the BSAI.	Crossover issues would be minimized if a single contract for coverage follows Tier 3 and 4 vessels, regardless of where they operate within Alaska. The reduction in competition, by narrowing the number of providers, may run contract costs up, over time.

Conclusions related to Alternative 5

Alternative 5, the comprehensive restructuring alternative, is the only alternative that would address the data quality concerns in the problem statement, while avoiding new complications associated with the management of two separate programs in the GOA and BSAI. As such, it was recommended for inclusion by NMFS as the only alternative that could address the longstanding issues associated with the current structure of the program. However, like Alternatives 3 and 4, given the uncertainties associated with observer wages under a restructured program, it is not possible at this time to estimate the costs of Alternative 5. Absent a better understanding of how observer wages would be structured under Alternative 5, basic elements of the program are not possible to determine, such as the fee percentage necessary to achieve desired coverage levels. These cost uncertainties are addressed in detail in Section 4.4.2. In addition, like Alternatives 3 and 4, new statutory authority is necessary to implement Alternative 5.

If the alternatives to restructure the deployment and funding mechanism of the current observer program were to be legally viable, additional benefits would be expected from Alternatives 3 – 5. Under the restructuring alternatives considered, the greatest increase in improvement in the collection of observer data would be expected in the Tier 3 and Tier 4 fisheries that currently have 30% observer coverage and no observer coverage, respectively. The potential for reducing bias and targeting coverage in Tiers 3 and 4 fisheries are addressed previously in this section, and are also applicable to Alternative 5.

Chapter 5 Consistency with other applicable laws

5.1 Final Regulatory Flexibility Analysis

This Final Regulatory Flexibility Analysis (FRFA) evaluates the impacts of the final rule extending the Observer Program would have on small entities.

The proposed rule for was published in the Federal Register on February 22, 2007 (72 FR 7948). An Initial Regulatory Flexibility Analysis (IRFA) was prepared for the proposed rule, and described in the classifications sections of the preamble to the rule. The public comment period ended on March 23, 2007. **No comments were received on the IRFA**. This FRFA meets the statutory requirements of the Regulatory Flexibility Act (RFA) of 1980, as amended by the Small Business Regulatory Enforcement Fairness Act (SBREFA) of 1996 (5 U.S.C. 601-612).

5.1.1 The purpose of a FRFA

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

On March 29, 1996, President Clinton signed the SBREFA. Among other things, the new law amended the RFA to allow judicial review of an agency's compliance with the RFA. The 1996 amendments also updated the requirements for a final regulatory flexibility analysis, including a description of the steps an agency must take to minimize the significant economic impact on small entities. Finally, the 1996 amendments expanded the authority of the Chief Counsel for Advocacy of the Small Business Administration (SBA) to file *amicus* briefs in court proceedings involving an agency's violation of the RFA.

In determining the scope, or "universe", of the entities to be considered in an IRFA, NMFS generally includes only those entities that can reasonably be expected to be directly regulated by the proposed action. If the effects of the rule fall primarily on a distinct segment, or portion thereof, of the industry (e.g., user group, gear type, geographic area), that segment would be considered the universe for the purpose of this analysis. NMFS interprets the intent of the RFA to address negative economic impacts, not beneficial impacts, and thus such a focus exists in analyses that are designed to address RFA compliance.

Because, based on all available information, it is not possible to 'certify', NMFS has prepared a formal FRFA and included it in this package for Secretarial review.

5.1.2 FRFA requirements

Under 5 U.S.C., Section 604(a) of the RFA, each FRFA is required to contain:

- A succinct statement of the need for, and objectives of, the rule;
- A summary of the significant issues raised by the public comments is response to the initial regulatory flexibility analysis, a summary of the assessment of the agency of such issues, and a statement of any changes made in the proposed rule as a result of such comments;
- A description of and an estimate of the number of small entities to which the rule will apply or an explanation of why no such estimate is available;
- A description of the projected reporting, recordkeeping and other compliance requirements of the proposed rule, including an estimate of the classes of small entities that will be subject to the requirement and the type of professional skills necessary for preparation of the report or record; and
- A description of the steps the agency has taken to minimize any significant economic impact on small entities consistent with the stated objectives of applicable statutes, including a statement of the factual, policy, and legal reasons for selecting the alternative adopted in the final rule and why each one of the other significant alternatives to the rule considered by the agency which affect the impact on small entities was rejected.

5.1.3 Definition of a small entity

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

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

The SBA has established size criteria for all major industry sectors in the United States, including fish harvesting and fish processing businesses. Effective January 5, 2006, a business involved in fish harvesting is a small business if it is independently owned and operated, not dominant in its field of operation (including its affiliates), and if it has combined annual gross receipts not in excess of $4.0 million for all its affiliated operations worldwide.[55] A seafood processor is a small business if it is independently owned and operated, not dominant in its field of operation, and employs 500 or fewer persons on a full-time, part-time, temporary, or other basis, at all its affiliated operations worldwide. A business involved in both the harvesting and processing of seafood products is a small business if it meets the $4.0 million criterion for fish harvesting operations. Finally, a wholesale business servicing the

[55]Effective January 6, 2006, SBA updated the Gross Annual Receipts thresholds for determining "small entity" status under the RFA. This is a periodic action to account for the impact of economic inflation. The revised threshold for "commercial fishing" operations (which, at present, has been determined by NMFS HQ to include catcher-processors, as well as catcher vessels) changed from $3.5 million to $4.0 million in annual gross receipts, from all its economic activities and affiliated operations, worldwide.

fishing industry is a small business if it employs 100 or fewer persons on a full-time, part-time, temporary, or other basis, at all its affiliated operations worldwide.

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

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

Affiliation may be based on common management or joint venture arrangements. Affiliation arises where one or more officers, directors, or general partners, controls the board of directors and/or the management of another concern. Parties to a joint venture also may be affiliates. A contractor and subcontractor are treated as joint venturers if the ostensible subcontractor will perform primary and vital requirements of a contract or if the prime contractor is unusually reliant upon the ostensible subcontractor. All requirements of the contract are considered in reviewing such relationship, including contract management, technical responsibilities, and the percentage of subcontracted work.

Small organizations. The RFA defines "small organizations" as any not-for-profit enterprise that is independently owned and operated, and is not dominant in its field.
Small governmental jurisdictions. The RFA defines small governmental jurisdictions as governments of cities, counties, towns, townships, villages, school districts, or special districts with populations of fewer than 50,000.

5.1.4 A succinct statement of the need for, and objectives of, the rule

The North Pacific Groundfish Observer Program is the largest observer program in the United States and plays a critical role in the conservation and management of groundfish, other living marine resources, and their habitat. The indispensable nature of this program, and its role in the successful and sustainable management of the living marine resources of the North Pacific and Bering Sea, are treated in detail in the EA and RIR, above. As noted there, data collected by the Observer Program are used for a wide variety of purposes including: (1) stock assessment; (2) monitoring groundfish quotas; (3) monitoring the bycatch of groundfish and non-groundfish species; (4) assessing the effects of the groundfish fishery on

other living marine resources and their habitat; and (5) assessing methods intended to improve the conservation and management of groundfish and other living marine resources.

However, the Federal regulations authorizing the existing observer program expire on December 31, 2007. While the Council continues to recognize the inherent structural problems with the existing observer delivery program, immediate Council action on a restructured program is not possible until information is forthcoming that includes clarification of cost issues that arise from Fair Labor Standards Act and Service Contract Act requirements. During the interim period, the Council must take action to prevent the expiration of the existing program on December 31, 2007.

Under the authority of the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act), the Secretary of Commerce, and, in the Alaska region, the North Pacific Fishery Management Council have the responsibility to prepare fishery management plans and amendments to those plans for the marine resources found to require conservation and management. NMFS is charged with carrying out the Federal mandates of the Department of Commerce with regard to marine fish, including the publication of Federal regulations. The Alaska Regional Office of NMFS, and Alaska Fisheries Science Center, research, draft, and support the management actions recommended by the Council.

The Magnuson-Stevens Act National Standard 2 requires that conservation and management measures shall be based upon the best scientific information available. Data collected by observers is essential for the Council and NMFS to meet this requirement. The objective of this action is to assure that these data collection mechanisms continue, beyond their scheduled sunset date of December 31, 2007.

5.1.5 A description of and an estimate of the number of small entities to which the final rule will apply

The entities directly regulated by this action are those entities that harvest and process groundfish in the EEZ of the BSAI and GOA. These entities include the halibut vessels, groundfish catcher vessels, groundfish catcher processor vessels, and shoreside processors active in these areas. It also includes organizations to which direct allocations of groundfish are made. In the BSAI, these include the CDQ groups and the AFA fishing cooperatives (i.e., at-sea, inshore).

Table 5-1 shows the estimated number of small and large entities in the BSAI and GOA groundfish and halibut fisheries. The reasoning supporting these estimates is summarized in the paragraphs following the table, and presented in greater detail in the RIR.

Table 5-1 Estimated numbers of directly regulated entities, by "size" in the BSAI and GOA groundfish and halibut fisheries

Fleet segment	Number small entities	Number large entities	Total number of entities
Groundfish catcher vessels	807	7 (112 vessels)	814
Groundfish catcher processors	23	54	87
Motherships	0	3	3
CDQ groups	6	0	6
Shoreside Processors	unknown	> 8	73
Observer Providers	5	0	5

Source: The groundfish estimates are from the 2005 TAC-setting EA. The halibut estimates are from the 2003 Report to the Fleet and reflect 2002 data.

Notes: In some cases, the number of entities is smaller than the number of individual vessels or shoreplants, indicating that at least some entities have multiple vessels or plants. The estimated numbers of vessels and plants have been placed in parentheses. Catcher vessel and catcher processor estimates were prepared from fishtickets, weekly processor reports, product price files, and intent-to-operate listing. The methodology used probably overstates the numbers of small entities. The estimated number of halibut vessels represents the estimated number of unique halibut-only vessels. Vessels that fish for both groundfish and halibut are listed as groundfish vessels. Shoreside processors include all Alaska processors that reported processing of groundfish to NOAA Fisheries in 2002. The number of small processing entities cannot be determined at this time due to insufficient ownership and affiliation information. All CDQ groups are non-profits and are therefore treated as small entities.

Fishing vessels, both catcher vessels and catcher processors, are considered small entities if their total gross receipts, from all their activities combined, are less than $4.0 million in a year. Table 5-2 provides estimates of the numbers of catcher vessels and catcher processors with less than $4.0 million in gross revenues from groundfish fishing in the BSAI and GOA. These estimates likely overstate the numbers of small entities for two reasons.

First, these estimates include only groundfish revenues earned from activity in the EEZ off Alaska. Since many of these vessels are also active in halibut, salmon, and shellfish fisheries in the EEZ off of Alaska, in fisheries within Alaskan waters, and off the west coast of the U.S., the reported groundfish revenues are believed to understate the total gross receipts for many of the vessels.

Second, the RFA requires a consideration of affiliations between entities, for the purpose of assessing if an entity is small. The estimates in Table 5-2 do not take account of affiliations between entities. There is not a strict one-to-one correlation between vessels and entities; many persons and firms are known to have ownership interests in more than one vessel, and many of these vessels with different ownership, are otherwise affiliated with each other. The AFA pollock cooperatives in the BSAI are an important type of affiliation. One hundred and twelve of the BSAI catcher vessels (CVs), and 21 catcher processors (CPs), were members of AFA co-ops in 2004, and therefore, "affiliated" for RFA purposes with the other operations in their respective cooperative fleets (lists of American Fisheries Act catcher vessel and catcher processor permits in 2004, accessed at http://www.fakr.noaa.gov/ram/afa.htm on November 5, 2004).

Table 5-2 indicates that in 2002, there were perhaps as many as 781 small catcher vessels fishing groundfish in the GOA and perhaps 251 fishing groundfish in the BSAI. There were perhaps as many as 913 small catcher vessels fishing groundfish in total. These numbers suggest that 119 vessels must have

operated in both the BSAI and the GOA. Table 5-3 indicates that there were 6 large CVs in the BSAI. NMFS AKR records, cited above, indicate that 112 BSAI CVs were members of AFA cooperatives; all of these are large entities. If the six BSAI CV entities identified as large, solely on the basis of gross revenues, are assumed to be AFA cooperative members, another 106 entities that would erroneously be identified as small on the basis of gross revenues, must be treated as large. The number of BSAI small entities fishing groundfish is actually perhaps closer to 145 (145 = 251 - 106), and the total BSAI and GOA number of small entities fishing groundfish may actually be nearer to 807 (807 = 913 - 106).

Table 5-3 identifies 6 catcher vessels with gross revenues greater than $4.0 million. These vessels belonged to the seven inshore cooperatives in 2004 (AKR website cited above). Thus, for the purposes of the RFA, there were seven large CV entities, controlling 112 vessels.

Table 5-2 indicates that in 2002, there were 20 small catcher processors in the GOA, and 32 in the BSAI. There were 33 small catcher processors in total. These numbers suggest that 19 catcher processors must have operated in both the BSAI and the GOA. Twenty-one CPs were issued AFA permits in 2004 (NMFS AKR website cited above). All of these are considered to be large entities for this analysis. However, it is not clear if these are already included in the count of 54 large BSAI CP entities from Table 5-3. Therefore, the counts from Table 5-2 and Table 5-3 are not adjusted in the same way the CV counts from these tables were adjusted. Thirty-three small CP entities are reported in Table 5-1; for the reasons discussed above, this is probably an overestimate of the true number of small CP entities that would be directly regulated by the proposed action.

The estimates of shoreside processors in Table 5-1 include all Alaska processors that reported processing groundfish to NOAA Fisheries in 2002. It is not possible, at this time, to determine how many of the 73 shoreside processors qualify as small entities, due to insufficient ownership and affiliation information. At least eight, those affiliated with AFA cooperatives, should be considered large. (http://www.fakr.noaa.gov/ram/daily/afa_ip.htm accessed on November 9, 2004). The three motherships appear to be large entities. The six CDQ groups are non-profit entities representing 65 western Alaska communities and, as such, are small entities consistent with SBA definitions.

Table 5-2 Number of vessels that caught or caught and processed less than $4.0 million ex-vessel value or product value of groundfish by area, catcher type and gear, 1998-2002

	Gulf of Alaska			Bering Sea and Aleutian			All Alaska		
	Catcher Vessels	Catcher process	Total	Catcher Vessels	Catcher process	Total	Catcher Vessels	Catcher process	Total
1998									
All gear	915	21	936	232	41	273	998	41	1,039
Hook & line	658	15	673	62	29	91	676	29	705
Pot	180	1	181	71	7	78	225	7	232
Trawl	167	5	172	115	7	122	205	7	212
1999									
All gear	889	29	918	277	31	308	1,010	34	1,044
Hook & line	625	17	642	67	19	86	651	22	673
Pot	201	10	211	90	11	101	256	11	267
Trawl	154	3	157	126	4	130	202	4	206
2000									
All gear	991	16	1,007	278	30	308	1,143	32	1,175
Hook & line	719	8	727	79	17	96	749	18	767
Pot	252	5	257	91	11	102	302	12	314
Trawl	127	3	130	114	5	119	206	6	212
2001									
All gear	853	21	874	280	43	323	1,013	44	1,057
Hook & line	650	15	665	92	31	123	681	31	712
Pot	154	4	158	74	7	81	212	9	221
Trawl	120	4	124	118	6	124	196	7	203
2002									
All gear	781	20	801	251	32	283	913	33	946
Hook & line	619	13	632	78	24	102	633	24	657
Pot	127	4	131	59	5	64	169	6	175
Trawl	107	3	110	118	3	121	186	3	189

Note: Includes only vessels that fished part of Federal TACs.

Source: CFEC fish tickets, weekly processor reports, NMFS permits, annual processor survey, ADFG intent-to-operate listings. National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

Table 5-3 Number of vessels that caught or caught and processed more than $4.0 million ex-vessel value or product value of groundfish by area, catcher type and gear, 1998-2002

	Gulf of Alaska		Bering Sea and Aleutian			All Alaska		
	Catcher process	Total	Catcher Vessels	Catcher process	Total	Catcher Vessels	Catcher process	Total
1998								
All gear	26	26	0	58	58	0	58	58
Hook & line	7	7	0	14	14	0	14	14
Pot	0	0	0	1	1	0	1	1
Trawl	19	19	0	44	44	0	44	44
1999								
All gear	29	29	1	57	58	1	57	58
Hook & line	13	13	0	22	22	0	22	22
Pot	1	1	0	3	3	0	3	3
Trawl	15	15	1	36	37	1	36	37
2000								
All gear	28	28	4	58	62	4	58	62
Hook & line	13	13	0	26	26	0	26	26
Pot	0	0	0	2	2	0	2	2
Trawl	15	15	4	34	38	4	34	38
2001								
All gear	19	19	5	47	52	5	47	52
Hook & line	5	5	0	14	14	0	14	14
Trawl	14	14	5	33	38	5	33	38
2002								
All gear	23	23	6	54	60	6	54	60
Hook & line	10	10	0	18	18	0	18	18
Trawl	13	13	6	36	42	6	36	42

Note: Includes only vessels that fished part of Federal TACs.

Source: CFEC fish tickets, weekly processor reports, NMFS permits, annual processor survey, ADFG intent-to-operate listings. National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

5.1.6 A description of the projected recordkeeping, reporting, and other compliance requirements of the final rule

The FRFA is required to include "a description of the projected reporting, record keeping, and other compliance requirements of the proposed rule, including an estimate of the classes of small entities that will be subject to the requirement and the type of professional skills necessary for preparation of the report or record..." Implementation of the regulatory amendment (Alternative 2) to extend the current observer program beyond 2007 will not change the overall reporting structure and record keeping requirements of the vessels and processors in the BSAI and GOA groundfish and halibut fisheries.

5.1.7 Description of significant alternatives and description of steps taken to minimize the significant economic impacts on small entities

The Council selected Alternative 2 as its final preferred alternative on June 11, 2006. There are no significant alternatives to the action that accomplish the stated objectives, are consistent with applicable statutes, and that would minimize the economic impact of the action on small entities. This is so, in large part, because of the looming sunset clause contained within the No Action alternative. Only the "preferred alternative" has the potential to achieve the primary objective of this action, that being, to sustain a data collection program for the groundfish fisheries off Alaska, beyond December 31, 2007.

5.2 Consistency with National Standards

Below are the ten National Standards as contained in the Magnuson-Stevens Act (Act), and a brief discussion of the consistency of the alternatives with those National Standards, where applicable.

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

In the long-term under Alternative 1 (no action), in which the observer program is allowed to expire after December 31, 2007, there are several conservation and management concerns that relate to National Standard 1. These are outlined in detail in Section 4.11.1.

Under the action alternatives (Alternatives 2 – 5), which includes the Council's preferred alternative, the groundfish and halibut fisheries would be managed as they currently are, regardless of the specific contracting model in place to provide observer coverage on vessels and in processing plants. Neither groundfish nor halibut stocks off Alaska are in danger from overfishing.

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

Note that information in this analysis represents the most current, comprehensive set of information available to the Council, recognizing that some information (such as future wages and employment regulations) is unavailable.

In the long-term under Alternative 1 (no action), in which the observer program is allowed to expire after December 31, 2007, observer data would no longer be available upon which to base conservation and management measures. The scientific data at issue, and the concerns related to no longer collecting those data under Alternative 1 are described in Section 4.11.1.

Recognizing that Alternative 2 (Council preferred alternative) is the only viable alternative in the short-term, due to statutory obstacles and cost uncertainties described in Sections 2.8, 4.4.2 and 4.4.3, respectively, maintaining the current observer program is at the heart of this proposed action. Expected improvements in data quality as a result of future actions to restructure the observer program would improve the scientific information available to the Council for most future management actions involving the groundfish and halibut fisheries. However, one of the primary concerns in the problem statement is to maintain an observer program beyond 2007, and only Alternative 2 can likely meet that fundamental need in the interim.

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

Nothing in this action would change the manner in which individual stocks are managed as a unit throughout their range. With the exception of the long-term implications under Alternative 1, in which the current observer program is allowed to expire after December 31, 2007, the groundfish and halibut fisheries would be managed as they currently are under the action alternatives (including Alternative 2, the Council's preferred alternative), regardless of the specific contracting model in place to provide observer coverage.

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

Observer requirements are based on the specific information and monitoring needs of specific fisheries and vessel types. Nothing in the alternatives considers residency as a criteria for the Council's decision. Residents of various states, including Alaska and the Pacific Northwest, participate in each of the major sectors affected by these allocations. Nothing in any alternative involves the allocation or assignment of fishing privileges among various U.S. fishermen.

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

The wording of this standard was changed in the recent Magnuson-Stevens Act authorization, to 'consider' rather than 'promote' efficiency. Efficiency in the context of this change refers to economic efficiency, and the reason for the change, essentially, is to de-emphasize to some degree the importance of economics relative to other considerations (Senate Report of the Committee on Commerce, Science, and Transportation on S. 39, the Sustainable Fisheries Act, 1996). The analysis presents information relative to these perspectives, but does not highlight any one alternative in terms of this standard. National Standard 5 recognizes the importance of various other issues in addition to economic efficiency.

There are no expected changes to the efficiency in the utilization of fishery resources as a result of this proposed action (Alternative 2).

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

No changes to the current fishery management regime would be expected under Alternative 2 (Council preferred alternative), as this alternative simply extends the existing observer program beyond 2007.

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

All of the alternatives under consideration, including the preferred alternative (Alternative 2), appear to be consistent with this standard, with the exception of the No Action alternative.

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

In the long-term under Alternative 1 (no action), in which the observer program is allowed to expire after December 31, 2007, observer data would no longer be available upon which to base the management of the North Pacific fisheries. To the extent that the fisheries would be managed more conservatively by NMFS, in order to avoid exceeding catch and bycatch limits, reductions in catch represent foregone revenues to harvesters and processors residing and/or spending revenues in fishing communities. The concerns related to Alternative 1 are outlined in Section 4.11.1.

The management of the groundfish and halibut fisheries would not change under the action alternatives (Alternatives 2 – 5) in any material way that would affect fishing communities. Under Alternative 2 (Council preferred alternative), there is no change to the existing groundfish observer program.

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

In the long-term under Alternative 1 (no action), in which the observer program is allowed to expire after December 31, 2007, observer data would no longer be available upon which to base conservation and management measures to minimize bycatch. The scientific data at issue and the concerns related to no longer collecting those data under Alternative 1 are outlined in Section 4.11.1

Because the management of the groundfish and halibut fisheries would not change under the preferred Alternative 2, this action would not be expected to have any material affect on actual bycatch rates in the groundfish and halibut fleets.

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

The alternatives under consideration appear to be consistent with this standard, including Alternative 2 (Council preferred alternative).

5.3 Fisheries Impact Statement (Spillover Impacts)

Section 303(a)(9) of the Magnuson-Stevens Act requires that any management measure submitted by the Council take into account potential impacts on the participants in the fisheries, as well as participants in adjacent fisheries. Impacts to participants in the groundfish and halibut fisheries are the subject of Chapter 4, and the specific impacts of Alternative 2 (Council preferred alternative) are detailed in Section 4.11.2.

The Council selected Alternative 2 as its preferred alternative in June 2006, effectively preventing the expiration of the current observer program on December 31, 2007. Note that effects of allowing the expiration of the program under Alternative 1 are described in Section 4.11.1. No changes are proposed to the existing program under Alternative 2, thus, no impacts are expected beyond those analyzed in previous documents, including the Final Programmatic SEIS (NMFS 2004). Potential impacts to fisheries other than the groundfish and halibut fisheries are not anticipated as a result of this action.

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