

Preliminary Draft

**Environmental Assessment/Regulatory Impact Review/Initial Regulatory Flexibility Analysis  
for a Fishery Management Plan Amendment  
to Establish a New Program for Observer Procurement and Deployment in the North Pacific**

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Anchorage, Alaska

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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
AFU	Alaska Fishermen's Union
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
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
GRS	Groundfish Retention Standard
HAPC	Habitat Area of Particular Concern
H&G	Head and gut processing
IPHC	International Pacific Halibut Commission
IRFA	Initial Regulatory Flexibility Act
ITS	Incidental Take Statement
JPA	Joint Partnership Agreement
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

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
SSC	Scientific and Statistical Committee
TAC	Total Allowable Catch
USFWS	U.S. Fish and Wildlife Service
WASC	NOAA Western Administrative Support Center

# 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 draft Environmental Assessment/Regulatory Impact Review/Initial Regulatory Flexibility Analysis (EA/RIR/IRFA) is intended to provide decision-makers and the public with an evaluation of the environmental and economic effects of an FMP amendment to restructure the North Pacific Groundfish Observer Program (Observer Program) to address a variety of longstanding issues. 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 a description of 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. In future versions of this document, Chapter 5 will address the specific requirements of Magnuson-Stevens Act (MSA), the RFA, and other applicable laws.

The analysis examines seven alternatives, six of which would create a new system for procuring and deploying observers in the groundfish and halibut fisheries of the North Pacific. All of the action 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, supported by broad-based user fees and/or direct Federal subsidies, in which NMFS would contract directly for observer coverage, and would be responsible for determining when and where observers should be deployed. Under this new program, vessel operators would no longer be responsible for obtaining certain levels of observer coverage specified in regulation and would only be required to carry an observer when requested to do so by NMFS.

NMFS began placing observers on foreign fishing vessels operating off the 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 MSA in 1976, which mandated that foreign vessels accept observers, observer coverage greatly expanded.

## 1.2 Background on the Observer Program

In 1978, American fishermen began fishing for groundfish in joint ventures with foreign processing vessels. By 1986, all foreign fishing operations were halted, 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 Miller 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 the vessel and plant owners pay for the cost of the observers, the costs associated with managing the program are covered 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' and 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 metric tons (mt) and 1000 mt of groundfish in a calendar month are required to have observers 30 percent 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. 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 almost 36,400 in 2002. In 2002, 340 individual observers served on board 312 vessels and 20 processing facilities.

**Table 1.2-1 Current observer requirements in Federal regulations**

<i>Vessel/processor type</i>	<i>Observer Requirement</i>	<i>Regulation</i>
halibut vessels	0% (no observer requirement)	n/a
groundfish vessels <60' LOA	0% (no observer requirement)	n/a
groundfish vessels $\geq$ 60 and <125' LOA and pot vessels of any length	30% of their fishing time by quarter and one entire trip per quarter	50 CFR 679.50(c)(1)
groundfish vessels $\geq$ 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 mt - 1000 mt of groundfish in a calendar month	30% of the days they receive or process groundfish	50 CFR 679.50(c)(1)
motherships and shoreside processors that process $\geq$ 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 $\geq$ 60'	100%	50 CFR 679.50(c)(4)

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. 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 proceeded 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 contractor certified by NMFS.

**1.2.1 Previous attempts to restructure the program: Research Plan and Joint Partnership Agreement**

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 revenue from their catch. Collection of this fee would be authorized by an amendment to the MSA. Under the Research Plan, NMFS would collect the fee and would contract directly with observer companies, 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;
- Increased costs of observer coverage due to the contractual arrangements between NMFS and observer companies that would fall under the Services 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 address. 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 that superseded the Research Plan 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 Fishermen's Union (AFU) has contracts with three of the four active 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, and the Council voted to extend the interim Observer Program through 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 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.

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. Nonetheless, such deflection 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.

### **1.2.2 Extensions of the Interim Program since 1998**

With the demise of 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 with an expiration date of 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 Joint Partnership Agreement, 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 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 amendment to extend the interim Observer Program, the current program will expire on December 31, 2007.

### **1.3 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 proposed action is intended to address a variety of longstanding issues associated with the existing system of observer procurement and deployment. 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<sup>1</sup> 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 meeting, the Council reviewed the discussion paper and the draft OAC report (available on the Council website) and approved the following problem statement for restructuring the Observer Program:

### ***Observer Program Restructuring 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.*

Since earlier attempts to restructure the entire program had not been successful, NMFS, Council staff, and the OAC began to consider a stepwise approach. 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 cost-equity 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.

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<sup>1</sup>Discussion paper on Options for Observer Program Restructuring, NMFS Alaska Region, January 21, 2003.

As NMFS began to evaluate alternatives under this scenario, however, they 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 their concerns in a letter that was 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% 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 and expenses. (NMFS will provide further elaboration on these concerns in a letter provided to the Council in advance of its December 2004 meeting. This information will be included in future revisions of this analytical document).

Secondly, this letter outlined concerns regarding 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.<sup>2</sup> 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 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

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<sup>2</sup>Memo from William Hogarth to Terry Lee, November 13, 2003.

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.<sup>3</sup> An initial response was received on March 8, recognizing the 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.<sup>4</sup>

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 is 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 for the alternatives that include the major fisheries of the BSAI (other than a fee based on ex-vessel value). 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. These options were incorporated to create the existing suite of alternatives and options under consideration in this document.<sup>5</sup>

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<sup>3</sup>Letter from Chris Oliver to William Hogarth, February 11, 2004.

<sup>4</sup>Letter from William Hogarth to Chris Oliver, March 8, 2004.

<sup>5</sup>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 has offered to provide training and guidance to NOAA contracting officers, observer providers, and other interested parties as appropriate on the SCA and FLSA. Information from these sessions would be summarized and made available to the public.

# Chapter 2 Description of the Alternatives

The alternatives and program elements analyzed in this document are described in this chapter. All of the 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 system, supported by broad-based user fees and/or direct Federal subsidies, in which NMFS would contract directly for observer coverage, and would be responsible for determining when and where observers should be deployed. Six alternative approaches for restructuring the Observer Program are analyzed in addition to the no action alternative. The six action alternatives are distinguished primarily by which fisheries would be included in the program, and are organized in ascending order from the smallest to the largest in terms of scope. Each alternative 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?
- **Contracting process:** How would NMFS contract with observer providers to obtain observer coverage?

Two underlying principles guide the construction of all of the alternatives; scalability and adaptability. Should the preferred 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 rationalization, without wholesale modification. The Council is currently considering a host of rationalization-oriented management proposals for GOA and BSAI fisheries and it makes little sense to design a new Observer Program that is not compatible with these new management proposals.

Any comprehensive restructuring of the Observer Program that addresses the problem statement by eliminating the current “pay-as-you-go” funding mechanism and providing 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 alternative but that are common to all of the alternatives. The required program elements and associated decision points are discussed in sections 2.2 through 2.6.

## 2.1 Summary of the alternatives

The six action alternatives 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 the following:

- 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. *GOA groundfish vessels only.*** Under this alternative, a new fee-based program would be established for GOA groundfish vessels, including GOA groundfish vessels under 60'. Regulations that divide the fleet into 0%, 30%, and 100% coverage categories would no longer apply to vessels in the program, and vessel operators would no longer be responsible for obtaining their own observer coverage. Under the new program, 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 would only be required to carry an observer when one is provided by NMFS. The fee would be based on a percentage of the ex-vessel value of each vessel’s GOA groundfish landings and would be collected through annual billing by NMFS.
- Alternative 3. *GOA groundfish vessels and halibut vessels only.*** This expands on Alternative 2 by including halibut vessels from all areas off Alaska. Fees would be collected from halibut landings as well as groundfish landings through annual billing by NMFS, and NMFS would have the authority to place observers on halibut vessels as well as groundfish vessels.
- Alternative 4. *GOA groundfish vessels, halibut vessels and GOA-based groundfish processors.*** This alternative expands on Alternative 3 by including GOA-based groundfish processors. However, in contrast to Alternatives 2 and 3, fees would be collected by processors at the time of landing, and fee proceeds would be submitted to NMFS on a quarterly basis.
- Alternative 5. *GOA groundfish vessels, halibut vessels, GOA-based groundfish processors, BSAI fixed gear catcher vessels (CVs) and BSAI pot vessels.*** This alternative expands on Alternative 4 by including BSAI fixed gear CVs (longline, jig, & pot) and BSAI pot catcher processors (CPs).
- Alternative 6. *GOA groundfish vessels, halibut vessels, GOA-based groundfish processors, all BSAI groundfish vessels under 125', and all BSAI pot vessels.*** This alternative expands on Alternative 5 by adding BSAI trawl CVs under 125', and BSAI trawl and longline CPs under 125'. 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 fee.
- Option 1:** **Include longline CPs  $\geq$  125'.** This suboption would expand Alternative 6 by including longline CPs  $\geq$ 125 operating in the BSAI.
- Option 2:** **Include non-AFA trawl CPs  $\geq$  125'.** This suboption would expand Alternative 6 by including non-AFA trawl CPs  $\geq$ 125' (i.e., the H&G fleet).
- Option 3:** **Include BSAI trawl CVs  $\geq$  125'.** (Staff recommend inclusion of this option). This option would allow all CVs operating in the BSAI to be covered under a single uniform program. Without this option, the predominantly AFA CV fleet operating in the BSAI would be split between two separate observer programs despite the fact that the two classes of vessels would in many cases be fishing side-by-side and delivering to the same processors.

**Alternative 7. *Comprehensive alternative: All groundfish vessels and processors and all halibut vessels.*** This alternative would establish a new fee-based Observer Program in which NMFS has a direct contract with observer providers for all GOA and BSAI groundfish and halibut vessels in the Federal fisheries. 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 fee.

In developing the alternatives, the Council also included several options that may be applied to more than one alternative:

**Option 4: Exclude GOA-based inshore processors.** (Alternatives 5 and 6). This option would exclude GOA-based inshore processors from the program under Alternatives 5 and 6. The effect of the alternative would be to establish a vessel-only program for the covered fisheries in the GOA and BSAI.

**Option 5: Establish an opt-in, opt-out provision for BSAI-based inshore processors.** (Alternatives 4 through 6). This option applies only if Option 4 is rejected. This option would allow each BSAI-based processor to determine for itself whether to opt-in or opt-out of the program. Processors opting into the program would pay observer fees on all groundfish and halibut landings they receive and would receive their observer coverage through the program. Processors electing to opt-out would pay observer fees on only those landings received from vessels that are participating in the program and would pay no fees on landings from vessels that are not participating in the program. The rationale behind this option is to provide certain BSAI-based processors with the option to join the program should they find that the majority of their landings are from vessels covered by the program. Each BSAI-based processor would have the opportunity to decide whether it makes sense to participate in the program based on how many of its deliveries are from vessels covered by the program.

**Option 6: Include CDQ fishing for participating vessels** (Alternatives 5 and 6). Under this option, vessels that participate in the program when fishing in non-CDQ fisheries would continue to be included in the program when fishing CDQ. This option would allow vessel operators to obtain their coverage through a single program throughout the fishing year and would allow them to switch back and forth between CDQ and non-CDQ fisheries without changing observers. Without this option, vessel operators could be forced to switch observers and observer providers when switching between CDQ and non-CDQ fishing and would be obligated to pay two separate types of fees depending upon whether the vessel is fishing CDQ or non-CDQ.

An additional option applies to the type of fee program selected.

**Option 7: Uniform fee program.** (Alternatives 6 and 7) Under this option, a uniform ex-vessel value fee would be required for all vessels and processors covered by the program in place of the two separate fee programs that are contained in Alternatives 6 and 7. Adoption of this option in conjunction with Alternative 7 would establish a program similar to the Research Plan that was implemented in 1994 and repealed in 1995.

## 2.2 Program scope: Which vessels and processors will be included?

The alternatives range in scope from the most minimal program that would include only GOA groundfish vessels (Alternative 2) to the most comprehensive program covering all groundfish vessels and processors and all halibut vessels off Alaska (Alternative 7). Vessels and processors participating in CDQ fisheries are included in the program under each alternative for which they are included for non-CDQ fishing. The options with respect to scope form the basis for the six action alternatives and are displayed in Table 2.2-1 below:

**Table 2.2-1 Program scope: Which vessels and processors are included in each alternative.**

<i>Vessel/Processor class</i>	<i>Alt. 2</i>	<i>Alt.3</i>	<i>Alt. 4</i>	<i>Alt. 5</i>	<i>Alt. 6</i>	<i>Alt. 7</i>
GOA groundfish vessels	Yes	Yes	Yes	Yes	Yes	Yes
Halibut vessels (all areas)		Yes	Yes	Yes	Yes	Yes
GOA-based inshore processors			Yes	Yes (with Option to exclude)		Yes
BSAI fixed gear CVs				Yes	Yes	Yes
BSAI pot vessels				Yes	Yes	Yes
BSA-based I inshore processors			Each processor may elect to opt-in or opt-out			Yes
BSAI trawl CVs <125'				Yes	Yes	Yes
BSAI trawl CV $\geq$ 125'					Option to include	Yes
BSAI longline CPs < 125'					Yes	Yes
BSAI trawl CPs < 125'					Yes	Yes
BSAI longline CPs $\geq$ 125'					Option to include	Yes
BSAI non-AFA trawl CPs $\geq$ 125'					Option to include	Yes
AFA inshore processors			Each processor may elect to opt-in or opt-out			Yes
AFA motherships						Yes
AFA CPs						Yes
CDQ vessels and processors				Option to include vessels and processors that are included in the program for their non-CDQ activity		Yes

The analysis does not include an alternative (other than the no action alternative) that would exclude GOA groundfish vessels under 60' LOA even though those vessels are not currently required to carry observers. In 1989, when the decision was made to exclude such vessels from any coverage requirements, it was felt that coverage requirements for vessels under 60' were not economically viable under the pay-as-you-go program because average annual revenues for vessels under 60' are less than one-third as much as average annual revenues for vessels in the 60-124' size range. However, a fee program based on a percentage of ex-vessel revenues solves the problem of disproportionate costs for smaller vessels and makes their inclusion into the restructured Observer Program more economically feasible.

Alternatives 4-6 contain an opt-in/opt-out provision for BSAI-based shoreside processors that take deliveries of groundfish from vessels covered by the program that merits further explanation. Most BSAI-based shoreside processors receive the great majority of their groundfish deliveries from vessels fishing in BSAI groundfish fisheries (especially AFA pollock), and only incidentally take deliveries of GOA groundfish. Therefore, the observers working at these plants spend the great majority of their time observing AFA pollock deliveries. A BSAI-based processor choosing to opt-in to the new program would obtain all of its coverage through the new program, and would be required to pay the processor's share of any fees for all groundfish landings, including the processor share of fees on landings by vessels that are not part of the program (i.e. CVs  $\geq$  125'). A BSAI-based processor choosing to opt-out would not receive observer coverage through the new program but would continue to obtain all of its observer coverage through the existing pay-as-you-go program.

However, a BSAI-based processor choosing to opt-out would still be required to collect fees from vessels making deliveries of groundfish and halibut that are covered by the program, and would be required to submit the processor's share of the fee for such deliveries, but would not submit fees for any groundfish landings by vessels not covered by the program. The purpose of imposing fees on BSAI-based processors choosing to opt-out is to maintain a level playing field for all processors that receive groundfish covered by the program. Otherwise, BSAI-based processors could have a competitive advantage over GOA-based processors that are required to pay the fee.

### **2.3 Coverage requirements**

The issue of coverage levels will arise with the implementation of a program that rescinds the current coverage levels that are 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 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 assessed. As is elaborated in more detail in Section 2.4, the Council has the option of establishing a uniform ex-vessel value fee that applies to all fisheries within the program, or to establish separate fee programs for fisheries in the different coverage tiers.

In addition, this analysis does not propose a 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. The Council and NMFS may wish to consider whether a more flexible process is warranted. Future versions of this document could explore possible options through which the tier level of a fishery could be changed if it is felt that normal notice and comment rulemaking is too cumbersome.

Finally, it should be noted that this four tier concept is being presented for public consideration for the first time in this analysis. Consequently, details such as the criteria established for each tier and the fisheries proposed for inclusion in each tier are presented in a preliminary fashion for discussion only. Should the Council wish to proceed in this direction, the concept will be developed in much greater detail in subsequent versions of this document.

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 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 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 (infrequent coverage).** These are fisheries in which NMFS is not dependent on observer data for inseason management. Coverage levels in Tier 4 fisheries are expected to be low and infrequent and used for special data needs and research rather than inseason management. Halibut vessels, jig vessels, and groundfish vessels <60' are likely to fall into 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 such requests are unlikely to occur on a regular basis.

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. 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 will fall into Tier 4 and will be required to carry an observer when requested, but can expect such coverage to be a relatively rare occurrence.

### 2.3.1 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 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 co-op allocations and groundfish sideboards. However the unifying characteristic is that the vessel is operating under an exclusive quota and catch data from each vessel is not aggregated across the fishing fleet.
- *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 Head and Gut processing (H&G) fleet, vessels are operating under some form of individual or cooperative based bycatch quotas. In the CDQ fishery, vessels operate under CDQ bycatch allocations. In the AFA fishery, CPs operate under prohibited species catch (PSC) sideboards that are allocated to each vessel. And in the BSAI H&G trawl fisheries, each CP  $\geq 125'$  will be subject to an individual vessel groundfish retention standard (GRS) under Amendment 79 to the BSAI FMP. Because the GRS functions as a limit on the amount of groundfish that each vessel may discard, it functions as an individual vessel bycatch limit.
- *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 whole fish to shoreside processors, the monitoring of inshore fisheries can be split between at-sea and shore-based observers.
- *Observer 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.

As is displayed in Table 2.2-1, 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 expected to increase.

### 2.3.2 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 level.

- *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 than would be the case if coverage was distributed randomly, or concentrated on vessels that harvest lower volumes of groundfish. The current 100% coverage requirement, which is based on vessel length, has served as a useful proxy in that vessels greater than 125' 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  $\geq$  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. This is the result of inshore/offshore regulations that prevent trawl CPs  $\geq$  125' from fishing for pollock and Pacific cod in the GOA.

- *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. And a single large CP may have the harvesting power of several smaller CPs. Therefore, the Council and NMFS may conclude that trawl CPs  $\geq$  125' operating in the GOA should continue to have 100% coverage as the currently required to have 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 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 handle the volume of groundfish harvested. The new groundfish retention standard (GRS) under Amendment 79 only applies to non-AFA CPs  $\geq$  125. The Council chose not to include vessels  $<$  125. The Council motion for Amendment 79 does provide 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 12/9 hour work day restrictions.
- *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 where 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.

### **2.3.3 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.

- *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, 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.

#### **2.3.4 Characteristics of Tier 4 fisheries**

The remaining groundfish and halibut fisheries that do not fall into Tiers 1 through 3 would be categorized as Tier 4 fisheries. These are fisheries where coverage levels would be low and infrequent, and observer data would be used primarily for special data needs and research rather than inseason management. 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.

- *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.

### 2.3.5 Proposed tier classifications for vessels and processors

The proposed classification of each fishery into each of the four tiers is shown in Table 2.3-1. While the tier classifications shown in this table closely match the existing coverage requirements, there are several 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%) instead of Tier 2 (100% coverage).

**Table 2.3-1 Proposed tier levels for vessels and processors.**

<i>Vessel/processor/fishery</i>	<i>Current coverage requirement and future coverage requirements proposed under other programs</i>	<i>Proposed tier classification</i>
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 H&G vessels $\geq$ 125' in the BSAI	200% coverage under Amendment 79 groundfish retention standard (GRS)	Tier 1
CPs fishing for Atka mackerel in the Aleutian Islands Subarea	200% coverage	Tier 1
non-AFA Trawl H&G vessels < 125' in the BSAI	30% coverage. However under proposed Amendment 80 Council is considering options for increased coverage under fishery cooperatives.	Tier 3 with possible increase to Tier 1 or Tier 2 under proposed Amendment 80
non-AFA Trawl H&G vessels $\geq$ 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 3
non-AFA inshore processors	0%, 30%, or 100% based on processing volume	Tier 3
Trawl CVs $\geq$ 125' (Including CDQ)	100% coverage	Tier 2 or Tier 3 with possible video monitoring requirement.
Trawl CVs 60' - 125' (Including CDQ)	30% coverage	Tier 3
Longline vessels $\geq$ 125'	100% coverage	Tier 3
Longline vessels 60 - 125'	30% coverage	Tier 3
Pot vessels $\geq$ 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

### *Significant changes from the status quo*

Under the proposed four-tier structure, most existing fisheries would fall into the tier that relates to their current coverage level with three notable exceptions: (1) CVs  $\geq 125'$ , (2) hook-and-line CPs (freezer longliners)  $\geq 125'$ , and (3) Non-AFA inshore processors. In all three instances, vessels and processors in these categories are proposed to be included in Tier 3 even though they are currently subject to 100% coverage requirements. The rationale for this change is as follows:

- *CVs  $\geq 125'$ .* Most if not all CVs  $\geq 125'$  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 and 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, the primary location for catch accounting is the processing plant rather than the vessel, and all pollock landings are weighed on certified scales and observed by a plant observer. The primary task of vessel observers 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  $\geq 125'$ . Some larger CVs have the ability to do extensive at-sea sorting because they load their fish holds via conveyer systems and that raises additional concerns about possible at-sea sorting if observers are not present.

In the BSAI Pacific cod fishery, the operational disparity between AFA CVs greater than and less than 125' is even smaller. In fact, many of the larger AFA CVs have been designed so specifically to operate in the high-volume midwater pollock fishery that they do not generally engage in bottom trawling for Pacific cod because it is less efficient for them to do so than for smaller, more versatile CVs. Consequently, the number of AFA CVs  $\geq 125'$  that operate in the BSAI Pacific cod fishery is lower than in the AFA pollock fishery and in the Pacific cod fishery there is less disparity in the groundfish volumes harvested by vessels greater than and less than 125'.

However, because at-sea discards of pollock is a concern across the entire AFA CV fleet, it may be appropriate to consider including all AFA CVs in the Tier 3 category only with the inclusion of a video monitoring requirement to ensure that catch is not sorted or discarded at sea. A vigorous 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 be accomplished at the processor. 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.

- *Freezer longline vessels  $\geq 125'$ .* Because of the inshore/offshore allocation regime in the GOA, longline CPs  $\geq 125'$  operate primarily in the BSAI Pacific cod fishery, and to a lesser extent in the halibut/sablefish IFQ fishery. In the BSAI Pacific cod fishery, the freezer longline fleet is divided fairly evenly between vessels over and under 125', meaning that half the fleet is currently subject to 30% coverage and half the fleet is currently subject to 100% coverage. However, these two size classes of freezer longliners operate in a very similar fashion and tend to harvest similar volumes of groundfish. This is because many freezer longline vessels 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 longline 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 longline 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. For this reason it may not make sense to maintain two separate coverage levels for the freezer longline fleet based on vessel length.

- *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 be grouped into the Tier 3 category and would be subject to regular observer coverage when requested to receive and observer by NMFS. This will provide NMFS with the flexibility to deploy additional observers at sea if it is determined that at-sea coverage is a higher priority than 100% coverage at all higher-volume inshore processors. 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 when such observers may be more useful if deployed elsewhere.

It should be emphasized, however, that inclusion of a fishery in the proposed new four-tier coverage system is dependent on inclusion in the overall restructured Observer Program. In other words, the tier structure would apply only to those fisheries that are included in the preferred alternative. Therefore, the proposed inclusion of CVs and freezer longliners  $\geq 125'$  in the new Tier 3 classification is dependent on their being included in the preferred alternative. This would only be the case if the Council includes these vessels in the program as an option under Alternative 6, or selects Alternative 7 as the preferred alternative. In all other instances, such vessels would remain in their existing coverage categories under the current pay-as-you-go regulations because they would not be included in the restructured Observer Program.

### **2.3.6 Inseason deployment issues**

Under the proposed tier structure, decisions about when and where to deploy observers will be a major issue in Tier 3 fisheries and a smaller issue in Tier 4 fisheries. In Tier 1 and Tier 2 fisheries, all vessels and processors are required to carry observers at all times and therefore, there will be no need for a 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, and therefore insures that the most experienced and highly-skilled observers are placed where they are most needed, will improve overall data quality.

At this point, this analysis does not identify alternative procedures to govern how specific vessels would be chosen for coverage and how specific observers would be assigned to vessels. NMFS is currently studying 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 believes 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. Further information on inseason deployment issues will be provided in subsequent drafts of this analysis.

## 2.4 Funding mechanism

All of the alternatives contained within this analysis anticipate funding the new observer program through some combination of user fees and direct Federal funding, which may be necessary to get the program up and running. Therefore, it should be understood that any decisions related to the type of user fee do not preclude the possibility of obtaining Federal funding to cover all or a portion of observer deployment costs. There are several decisions related to the funding mechanism under each alternative. Section 2.4 outlines the primary issues and concepts relevant to the funding mechanism:

- Types of fees
  - Fee based on percentage of the ex-vessel value of landed catch
  - Daily observer fee based on coverage costs
  - Federal funds
  - Other types of user fees that are not analyzed further
- Fee collection
- Uniform or variable fees
- Supplemental fee options for special programs
- Initial fee percentage
- Process for adjusting fee percentages
- Start-up funding and Federal funds
- Restriction on the use of fee proceeds

### 2.4.1 Types of fees

In considering options for user fees, NMFS, Council staff, and the OAC developed several philosophical 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.
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. In extreme instances, observer costs for a particular vessel may be prohibitive in that they exceed 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’ 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 AFA and CDQ 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.

#### **2.4.2 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.

##### *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 related both to 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 Council's 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 groundfish fisheries regardless of size and coverage levels. 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 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.
- *Easiest 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 to 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.* This is perhaps the most significant disadvantage to an ex-vessel value fee. 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 both fee revenues and coverage costs are likely to vary considerably 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 so 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 is used to extrapolate activity from observed to 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 is used by inseason management primarily to generate fleet-wide halibut bycatch rates for each gear type.

An ex-vessel value fee would allow NMFS to collect observer funds from all participants in the fishery instead of just the few vessels that are required to carry observers, and distribute observers throughout the fishery as appropriate. To some extent, 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, Alternatives a fee based on the ex-vessel value of landed catch is proposed for all Tier 3 and 4 fisheries under Alternatives 2 through 7, and an ex-vessel value fee is included as an option for Tier 1 and Tier 2 fisheries under Alternatives 6 and 7. Ex-vessel value fees are the most commonly-used type of fee in the North Pacific. In sum, the advantages to such a fee 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 fee is already collected by NMFS.

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

The 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 believed that the use of standard prices was necessary 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 reductions, or "under reporting," and
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 also 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 reasonable and acceptable to industry. In 2004 (to pay for the 2003 fishing year), 95 percent 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 percent of IFQ permit holders chose to pay based on the actual ex-vessel value of at least some of their landings (J. Gharrett, pers. comm, 11/18/04). 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 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.

Therefore, to some extent, the choice of fee collection mechanism affects the choice of standardized or actual prices. The alternatives take two different approaches to fee collection. Under Alternatives 2 and 3, which include vessels but not processors in the program, NMFS would bill vessel owners directly on an annual basis. Under Alternatives 4 through 7, processors would be responsible for collecting fees at the time of landing and would submit fee proceeds to NMFS on a quarterly basis.

*Standardized prices (Alternatives 2 and 3).* Under Alternatives 2 and 3, NMFS would bill vessel owners directly on an annual basis using landings data and standardized prices. CP fees would be based on the round-weight equivalent of their retained products. Standardized prices were chosen for Alternatives 2 and 3 for two reasons. First, the use of standardized prices simplifies the billing process in that NMFS can apply standardized prices to each vessel's landings data to generate annual bills. Second, a fee collection system that uses an annual post-season bill would allow NMFS to use standardized prices for the same fishing year in which the fees are being assessed. A program in which fees are assessed at the time of landing would be forced to use standardized prices from the previous year as was the case under the Research Plan because standardized prices from the current fishing year would be unavailable. However, even if NMFS issues all bills using standardized prices, there is no compelling reason why CV owners could not be given the option to document and submit their fee amounts using actual rather than standardized process as is the case with the IFQ cost-recovery program. This option would be unavailable for CPs, which have no price transaction for raw fish.

*Actual prices (Alternatives 4 through 7).* Under Alternatives 4 through 7, actual prices would be used for CV deliveries to shoreside processors, and standardized prices would be used for CPs. Actual prices were chosen for CV deliveries to provide the opportunity to compare and contrast these two different approaches. However, the use of actual prices depends on the ability of NMFS to address the concerns expressed by NMFS during the development of the Research Plan about the use of actual prices. If these concerns cannot be adequately addressed, then standard prices may be the only viable approach for all of the alternatives.

It should be emphasized that the objective of the fee collection program is to recover only those direct costs required to maintain the necessary levels of observer coverage in the fisheries participating in the program. If certain vessel owners or processors engage in deceptive practices to under-report actual prices in an attempt to reduce their fee assessments, then the Council and NMFS would likely need to raise the fee percentage over the long-term to compensate for the revenue shortfall. The effect of such activity would be to shift costs to those vessel owners and processors who are not engaged in deceptive pricing strategies.

### **2.4.3 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 or a third party contractor 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 funds are available to support 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. It is expected that this approach would only be applied to vessels and processors in Tiers 1 and 2 (100% or greater coverage levels), and is thus only an option under Alternatives 6 and 7, which are the only alternatives that include vessels and processors in the Tier 1 and 2 category.

#### ***Advantages to a daily observer fee based on coverage levels:***

- *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.* An ex-vessel value fee charges everyone based on their revenues without regard to differences in monitoring requirements in different fisheries. A fee based on coverage means that everyone pays for the coverage they receive, whereas a fee based on ex-vessel value means that some vessels would subsidize coverage for others.

#### ***Disadvantages to a daily observer fee based on coverage levels***

- *Does not address cost equity 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.

#### ***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  $\geq 125'$  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 fishing operations 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 considered as an option under Alternatives 6 and 7, those alternatives that include the major fisheries of the BSAI in the new program.

#### **2.4.4 Federal funds**

With one exception,<sup>6</sup> the Federal observer programs in other regions of the U.S. are entirely Federally funded. Given this fact, many fishermen in the North Pacific believe their observer programs 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, Federal funding is considered in this analysis as a possible source of future funding for the Observer Program. In general, Federal funding for observer coverage can be divided into two categories: ongoing partial to full support or one-time start-up funding. Details on the need for and use of Federal funding, specifically with regard to start-up funding, is provided in section 2.6 of the analysis. All of the alternatives under consideration can absorb partial or full Federal funding should it become available.

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<sup>6</sup>The Northeast sea scallop observer program is currently funded by a TAC set-aside rather than Federal funds. Vessels carrying observers are allowed to harvest more scallops than vessels without observers, and the sale of these additional scallops is used to pay for the costs of observer coverage.

#### **2.4.5 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 in 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 intellectually 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. Given the relatively low levels of current coverage in most of the fisheries to which the 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 is 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. Of course fish prices and observer costs are not necessarily linked and in any one year prices could drop while observer costs increase. However, 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 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 recordkeeping.

*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. However, this type of program falls outside of NMFS’s jurisdiction and is not analyzed further in this document. Furthermore, this type of tax would be more appropriate to consider at the national level 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's jurisdiction and would be more appropriate to consider at the national level to support marine resource management needs nationwide. For this reason, it is not considered further in this document.

#### **2.4.6 Fee collection: Who is responsible for collecting the fee?**

A major 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 are likely to be much less than what they were 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.

*Annual post-season billing by NMFS (Alternatives 2 and 3).* Under Alternatives 2 and 3, which do not include processors in the program, NMFS would follow the IFQ cost-recovery program model under which NMFS would bill vessel owners directly on an annual basis. This approach would require that NMFS develop effective enforcement mechanisms to address the potential problem of non-payment. One way to do so would be to withhold the renewal of fishing permits until observer fees from the previous year are paid.

*Processor collection at the time of landing (Alternatives 4 - 7).* Under Alternatives 4 through 7, processors would be responsible for collecting fees from fishermen at the time of landing, and for submitting fee proceeds on a quarterly basis. Given recent advances in electronic recordkeeping and reporting, the collection of observer fees could be largely automated through modifications to existing software. Software automation should largely address the concerns expressed by industry about the paperwork burdens of fee collection during the development of the original Research Plan.

#### **2.4.7 Uniform or variable fees?**

Coverage needs among fisheries are not uniform and may vary dramatically based on various factors such as species composition, bycatch levels, marine mammal and endangered species interactions, and the level of individual vessel monitoring in the fishery. This decision point 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 politically-charged 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 alternatives consider options that would establish variable fees for "baseline" coverage based on categories such as target fishery and gear type. However, all of the alternatives would

include an option to allow supplemental fishery-specific fees to support specific management programs such as rationalization that may require higher coverage levels and would benefit only a subset of the participants covered by the restructured Observer Program.

#### **2.4.8 Supplemental fee options for special programs**

**All of the alternatives in this analysis assume that a uniform fee would be established for all participants in the 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 the GOA rationalization amendment, however the rationalization alternatives currently under consideration could require greatly increased observer coverage. In addition, other rationalization proposals currently under development, such as the bycatch-based cooperatives under consideration for BSAI CPs, also could require significant increases in observer coverage.

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. 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 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 individual 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 simply 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 only rationalization programs on the near-term horizon that will significantly increase observer coverage requirements are the IR/IU-related Amendments 79 and 80 to the BSAI FMP, which will increase coverage requirements on non-AFA trawl CPs to 200%. However if these programs are approved and implemented by NMFS, the likely effect would be to shift these fisheries in 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. 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.

#### 2.4.9 Initial fee percentage

Regardless of the alternative chosen, setting an initial fee percentage is one of the biggest decisions facing the Council. However, it is not possible to establish 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) 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 goes beyond the scope of this analysis.

Furthermore, most of the fisheries in question are currently evolving, as a rationalization program is under development for the GOA groundfish fishery and various bycatch management cooperative proposals are under development for the BSAI groundfish fisheries, and future coverage needs are unknown. 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 under 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, two "end-point" fee levels are proposed for Council consideration under each alternative in the RIR:

*Option 1: Maintain the existing number of deployment days (lower endpoint).* 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  $\geq 60'$ . Under all of the 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: 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 (upper endpoint).* 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' will be difficult to make because data on the average number of fishing days for such vessels is unavailable.

#### 2.4.10 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 while expanding the program into new fisheries, some mechanism must be established through which the fee percentage can be adjusted to account for changing programs and coverage 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 may no longer be 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 may need to go through the process of notice and comment rulemaking. Additional legal guidance is necessary to determine if any options exist for discretionary fee adjustments that do not involve notice and comment rulemaking.

The IFQ cost recovery program does provide 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 three percent. IFQ regulations specify that the fee percentage be calculated using the following formula :

$$[100 \times (\text{DPC} - \text{AB}) / \text{V}] / (1 - \text{NPR})$$

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 three percent of “the total ex-vessel value” of IFQ fish landed each year. If applying a three percent fee would recover revenues in excess of those needed, the percentage is set at less than three percent. 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 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. Nevertheless, regardless of whether a framework or formal rulemaking is required for adjustments to the fee percentage, this analysis assumes that both the Council and NMFS would be involved in the decision to change the fee percentage in response to changing costs and coverage needs.

#### **2.4.11 Start-up funding and Federal funds**

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 transferring their catch history to the inshore sector. 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.

One type of contract called “Indefinite Quantity/Indefinite Delivery (IQ/ID) would reduce, but not eliminate, the need for start-up funds. Under IQ/ID contracting, NMFS would enter into an agreement with one or more service providers for a certain minimal 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 IQ/ID 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 IQ/ID contracts would depend on the specific terms of the contract.

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 the parallel need for additional subsidies to fund program expansion.

### *Ongoing Federal funding*

In addition to start-up funding, some level of ongoing Federal funding 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 beyond the scope of this analysis to speculate as to the likelihood and level of any future Federal funding to cover the direct expense of observer coverage. However under all of the alternatives, it is assumed that NMFS would continue to be responsible for administrative costs and that fee proceeds would not be used to cover administrative expenses related to the administration of the Observer Program.

#### **2.4.12 Restrictions on the use of fee proceeds**

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. In addition, additional technologies and equipment could be required onboard vessels to assist observers in their data collection. Proceeds of the fee program could be restricted to funding only human observers. 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 will be appended to this document. The Council may wish to consider the results of that analysis to determine how the use of fee proceeds should be restricted.

## **2.5 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 requirement so that observers are able to submit data from sea. These requirements would be largely unchanged under the proposed alternatives.

**Table 2.5-1 Existing and proposed equipment requirements under the new tier structure.**

<i>Equipment requirement</i>	<i>Applicability</i>
Flow scales (or equivalent)	Tier 1
Observer sampling station	Tiers 1 and 2
ATLAS communication software and equipment	Tiers 1, 2, and 3
Electronic fishing logbook (proposed as a voluntary measure initially)	Tiers 1, 2, 3, and 4

### **2.5.1 Electronic fishing logbook**

Under all of the 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 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 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  $\geq 60'$  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) has 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 plan is 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. In a cooperative effort among fishermen, OceanLogic, and the AFSC, the software will be enhanced to allow fishermen to record additional data that will be of use to fishermen and NMFS in monitoring economic performance.

There has been a lively discussion among fishermen about the pros and cons 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 happy with the electronic logbook.<sup>7</sup> This experience suggests that additional work on the system is necessary before requiring vessels to use it on a widespread scale.

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<sup>7</sup>Alan Kinsolving, NMFS Alaska Region, personal communication.

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 the Region within 1 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 the Region 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 the Region 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 the Region 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 vendors. AFMA has procedures for testing the receipt of logbook data from different software vendors 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).

#### **2.5.2 Check-in/check-out system for vessels and processors.**

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 manually by NMFS (or contract employees) who would answer telephones and receiving faxes and enter the data by hand, 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. This aspect of the program can be developed by NMFS during the implementation phase once a preferred alternative is selected.

### **2.5.3 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 and PSC bycatch.

Digital observer technology takes the use of video monitoring one step farther. 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 LLC of Kodiak, Alaska. Although this technology is still in the testing phase, it may be a viable alternative to human observers for some types of vessels and fisheries in the GOA.

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 more general FMP amendment package. 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 will be appended to the public review draft of this document.

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. In addition, additional technologies and equipment could be required onboard vessels to assist observers in their data collection. Proceeds of the fee program could be restricted to funding only human observers. 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.

## **2.6 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 from the status quo 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 Chapter 4 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 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.

## **2.7 Detailed summary of the alternatives**

The various program elements and options described in previous sections could be combined into thousands of possible combinations, thus the analysis is unable to explore every possible combination of program elements. Therefore, six representative alternatives have been identified in addition to the no action alternative, and are arranged in order from the smallest to the largest in terms of scope. The Council could select one of these representative alternatives as its preferred alternative, or combine various program elements and options into an 8<sup>th</sup> and preferred alternative prior to final action. The following table provides a detailed summary and comparison of the seven alternatives.

**Table 2.7-1 Comparison of the seven alternatives**

<i>Program Elements</i>	<i>Alternative 1</i>	<i>Alternative 2</i>	<i>Alternative 3</i>	<i>Alternative 4</i>	<i>Alternative 5</i>	<i>Alternative 6</i>	<i>Alternative 7</i>
<b>Program Scope</b>							
<u>GOA</u>							
groundfish vessels < 60'	no	yes	yes	yes	yes	yes	yes
groundfish vessels ≥ 60'	no	yes	yes	yes	yes	yes	yes
halibut vessels	no	no	yes	yes	yes	yes	yes
GOA-based groundfish processors	no	no	no	yes	yes, with option to exclude	yes, with option to exclude	yes
<u>BSAI</u>							
BSAI fixed gear CVs; all pot vessels	no	no	no	no	yes	yes	yes
halibut vessels	no	no	yes	yes	yes	yes	yes
All BSAI groundfish vessels <125'	no	no	no	no	no (only fixed gear)	yes	yes
Longline CPs ≥125'	no	no	no	no	no	option to include	yes
Non-AFA trawl CPs ≥125'	no	no	no	no	no	option to include	yes
BSAI-based groundfish processors that take GOA groundfish deliveries	no	no	no	Processor may opt-in or opt-out but must pay fee on program-covered landings regardless	Processor may opt-in or opt-out but must pay fee on program-covered landings regardless	Processor may opt-in or opt-out but must pay fee on program-covered landings regardless	yes
BSAI-based processors that take deliveries of BSAI groundfish from vessels covered by the program	no	no	no	no	Processor may opt-in or opt-out but must pay fee on program-covered landings regardless	Processor may opt-in or opt-out but must pay fee on program-covered landings regardless	yes
Coverage levels	0%, 30% and 100% coverage levels established in regulation	Vessels and processors assigned into one of four tiers depending on management 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 on an ongoing basis 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.					

<i>Program Elements</i>	<i>Alternative 1</i>	<i>Alternative 2</i>	<i>Alternative 3</i>	<i>Alternative 4</i>	<i>Alternative 5</i>	<i>Alternative 6</i>	<i>Alternative 7</i>
Type of fee	Vessel contracts directly for coverage	Percentage of ex-vessel value of landed catch				Tier 1 and Tier 2 fisheries would be assessed a daily observer fee with an option for ex-vessel value fee.  Tier 3 and Tier 4 fisheries would be assessed an ex-vessel value fee	
Fee collection	Vessel billed directly by provider for actual coverage	Direct annual billing by NMFS	Vessel fees would be collected by processors at the time of landing with proceeds submitted to NMFS quarterly.				
Basis of ex-vessel price	N/A	NMFS would bill using standardized prices. CV owners could have the option of using actual prices for some or all landings.	Processors would collect fees based on actual prices at the time of landing and at the time of any subsequent price adjustments. CPs would pay based on standardized prices using round-weight equivalents.				
Basis of daily observer fee	N/A	N/A	Average daily cost of coverage as determined by current service delivery contracts.				
Fee percentage	N/A	Uniform "baseline" fee for all participants established in regulation					
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 if framework option not workable					
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.					
Initial coverage levels for Tier 3 and 4 fisheries	Established in regulation	To be determined later based on separate, ongoing 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).					
Start-up funding	none	Federal appropriations (grant or loan)					
Direct Federal funding	none	Federal appropriations to supplement fee revenues					
Electronic fishing logbooks	N/A	Voluntary use of electronic logbooks encouraged by NMFS through financial incentives if available					
Inseason deployment	Determined by vessel and observer provider	Determined by NMFS based on inseason coverage priorities.					
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 separate analysis.					

## 2.8 Alternatives rejected from further analysis

*Observers as Federal employees.* While NMFS does maintain a small cadre of observer staff who are Federal employees, 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 analyzed in this document for several reasons. First, it is extremely unlikely that such a program would be approved by the Secretary because it is inconsistent with current Federal policies that restrict Federal hiring and emphasize the role of Federal contractors. Second, observer providers are very experienced at the logistics of observer deployment and that expertise would be lost. Third, 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 1.1.1.

## 2.9 Related NEPA and fishery description documents

The following list of 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 previous documents.

*Groundfish 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 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 was 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-Specifications EAs.* In addition to the TAC-setting EIS analysis, environmental assessments have been written to accompany each new year's TAC 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.

*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 superceded 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.

## **2.10 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 groundfish and PSC catches are properly accounted.

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 rationalization alternatives are still under development, it is not possible to outline in great 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 rationalization alternatives and monitoring options develop, they should be closely integrated with the Observer Program restructuring effort, in order to ensure that the Council and NMFS do not develop a new Observer Program that cannot accommodate changes anticipated under GOA rationalization.

## **2.11 Applicable laws and statutory changes required to implement the alternatives**

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, any new fee program for selective fisheries under the Council's jurisdiction is likely to require statutory authorization unless it is determined that different fees can be assessed against different fisheries or sectors.

Given that the Council's GOA rationalization alternatives also are likely to require some form of statutory authorization, one legislative strategy would be to authorize the elements of the new Observer Program within whatever statutory language is proposed to authorize GOA rationalization. Alternatively, the Council and NMFS can recommend that future MSA reauthorization provide the necessary authority to implement the preferred Observer Program alternative.

# 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

Chapter 3 of the Alaska Groundfish Fisheries PSEIS (NMFS 2004) provides a detailed description of the affected environment including extensive information on the fishery management areas, marine resources, ecosystem, and economic parameters. The 2004 TAC Specifications EA describes, among other things, the TAC-setting process.

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.
- (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 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 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 restructure the 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 2004 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 made 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 (open 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, longline 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.

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.

Observer Program history and background information is discussed in Chapter 1 of this document. In October 2002, the Council and NMFS staff met to discuss ways to restructure the Observer Program to address data quality and cost equity issues. The following problem statement was approved by the Council in February 2003:

*The North Pacific Groundfish Observer Program (Observer Program) is widely recognized as a successful and essential program for management of the North Pacific 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 structure 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.”*

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.

An important point with respect to understanding the scope of this analysis is 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. These situations are termed “not applicable” (NA) in the criteria tables. The significance determinations are summarized in each section.

The rating terminology used to determine significance are the same for each resource, species, or issue treated, although the reference points for each may differ. The generic definitions for the assigned ratings are as follows:

- S+ Significant beneficial effect in relation to the reference point; this determination is based on interpretations of available data and the judgement of the analysts who addressed the topic.
- I Insignificant effect in relation to the reference point; this determination is based on interpretations of available data and the judgement of the analysts, which suggests they are small and within the “normal” variability surrounding the reference point.
- S- Significant adverse effect in relation to the reference point; this determination is based on interpretations of available data and the judgement of the analysts who addressed the topic.
- U Unknown effect in relation to the reference point; this determination is made in the absence of information or data suitable for interpretation with respect to the question of impacts on the resource, species, or issue.

### **3.2.1 Effects of expiration of the program under the no action alternative**

Under the no action alternative (Alternative 1), the Observer Program could expire at the end of 2007, if no other action is taken to extend the program. Although the Council has a history of extending the interim Observer Program, the expiration of the Observer Program warrants brief discussion. Alternative 2 of the final PSEIS (NMFS 2004) analyzes the effects of the elimination of the Observer Program. The expiration of the Observer Program would apply to all groundfish fisheries with the exception of the AFA and CDQ pollock fisheries, thus representing an 80 percent reduction in observer days. The AFA is separate legislation

mandating certain levels of observer coverage and would remain in effect regardless of the expiration of the program in 2007. The implications of this expiration are discussed in the draft PSEIS relative to target species, the food web, bycatch, and allocation issues.

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 endangered 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 in this document. Alternative 1 represents the situation in which no restructuring effort is undertaken, and the existing pay-as-you-go system for observer coverage remains in place.

### **3.2.2 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 seven alternatives for each target species or species group for which a TAC amount is being specified:

1. How much effect does the alternative have on fishing mortality?
2. How much effect does the alternative have on spatial or temporal concentration of the species?
3. How much effect does the alternative have on the availability of prey for the target species?
4. 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 2004 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. Therefore genetic integrity and reproductive potential of the stocks should be preserved.

**Table 3.2-1 Criteria used to estimate significance of direct effects on targeted groundfish stocks in the BSAI and GOA under Alternatives 1-7**

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 <i>not</i> 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 <i>not</i> sufficient to alter the genetic sub-population structure such that it jeopardizes the ability 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 <i>or</i> 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 <i>not</i> 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 <i>or</i> 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 <i>not</i> 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 <i>or</i> 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 <i>not</i> 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 <i>or</i> enhances the ability of the stock to sustain itself at or above the MSST

**Table 3.2-2 Summary of impacts of Alternatives 1-7 on targeted groundfish stocks**

Summary of Impacts:	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5	Alternative 6	Alternative 7
Direct Effects							
Fishing Mortality	I	I	I	I	I	I	I
Changes in genetic structure of population	I	I	I	I	I	I	I
Changes in reproductive success	I	I	I	I	I	I	I
Indirect Effects							
Change in prey availability	I	I	I	I	I	I	I
Change in suitability of spawning, nursery, or settlement habitat	I	I	I	I	I	I	I

*Summary of the effects of Alternative 1 on fish stocks.* Alternative 1 is the status quo alternative and monitoring levels are considered to be baseline with respect to the other alternatives. Under this alternative, there would be no immediate changes to the observer program. There would be no additional effects outside those analyzed in previous NEPA documents.

*Summary of the effects of Alternatives 2-7 on fish stocks.* Alternatives 2-7 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 feet 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 minimum stock size threshold; (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 minimum stock size threshold.

### 3.2.3 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, and Alaska king, Tanner, and snow crab. The most recent review of the status of crab stocks may be found in the 2002 Crab SAFE (NPFMC, 2002a) 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 entire 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 was whether or not 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.

If the alternative was not reasonably expected to decrease the total CEY of the halibut stock below the long term estimated yield of 80 million pounds, it was rated insignificant. 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, Tanner, and snow 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 in 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 3.2-3 Criteria used to estimate significance of effect of PSC on prohibited species in the BSAI and GOA under Alternatives 1-7**

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.

**Table 3.2-4 Summary of impacts of Alternatives 1-7 on prohibited species**

Summary of impacts of incidental catch of prohibited species	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5	Alternative 6	Alternative 7
Pacific salmon	I	I	I	I	I	I	I
Pacific halibut	I	I	I	I	I	I	I
Pacific herring	I	I	I	I	I	I	I
Crab	I	I	I	I	I	I	I

*Summary of the effects of Alternative 1 on prohibited species.* Monitoring levels under Alternative 1 (no action) are considered the baseline with respect to the other alternatives. Under Alternative 1, there would be no immediate 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 2 - 7 on prohibited species.* Alternatives 2 - 7 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 feet, 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. Where harvest information is not timely or is inaccurate, fisheries are occasionally closed after PSC levels have been reached, resulting in overharvest of PSC species. The more observer information available to managers, 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.

### 3.2.4 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 would be 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) present in the management areas are listed below. 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 were 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, nets 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. While the listing process has continued, the USFWS has not made a final decision. The agency is currently in the process of preparing the final rule, which is expected to be published in February 2005. The final rule is likely to be one of three potential determinations: that insufficient information exists to warrant listing the stock at this time; to list the stock as threatened; or to list the stock as endangered. If listed, the agency would begin work on a recovery plan. Designation of critical habitat for this species would be a separate process. 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.<sup>8</sup>

**Table 3.2-5 Criteria used to estimate significance of effect on marine mammals in the BSAI and GOA under Alternatives 1-7**

Intensity of Effect	Significant Adverse	Significant Beneficial	Insignificant	Unknown
Incidental take/entanglement in marine debris	Take rate increases by $\geq 25\%$	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

**Table 3.2-6 Summary of impacts of Alternatives 1-7 on marine mammals**

Summary of Impacts:	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5	Alternative 6	Alternative 7
Incidental take/entanglement in marine debris	I	I	I	I	I	I	I
Spatial/temporal concentration of fishery	I	I	I	I	I	I	I
Disturbance	I	I	I	I	I	I	I

*Summary of the effects of Alternative 1 on marine mammals.* Monitoring levels under Alternative 1 (no action) are considered to represent the baseline with respect to the other alternatives. Under Alternative 1, there would be no changes to the current funding and deployment mechanism of the existing observer program. This alternative would propose no additional effects outside those analyzed in previous NEPA documents.

*Summary of the effects of Alternatives 2 - 7 on marine mammals.* Under Alternatives 2 - 7, 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

<sup>8</sup>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).

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, nets moving through the water column, or underwater sound production which could affect marine mammal foraging behavior, will not be affected by any of the proposed action alternatives.

### **3.2.5 Effects on seabirds**

Given the sparse 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, piscivorous 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 Stellar'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 longline, trawl, and pot gear, although the vast majority occurs in the longline fisheries and is comprised primarily of the following species or species groups: fulmars, gulls, shearwaters, and albatrosses. Therefore, this analysis of incidental take focuses primarily on the longline 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 less of a 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 3.2-6 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 3.2-7 Criteria used to estimate significance of effect on seabirds in the BSAI and GOA under Alternatives 1-7**

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

**Table 3.2-8 Summary of impacts of Alternatives 1-7 on seabirds**

Summary of Impacts:	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5	Alternative 6	Alternative 7
Incidental take	I	I	I	I	I	I	I
Prey (forage fish) availability	I	I	I	I	I	I	I
Benthic habitat	I	I	I	I	I	I	I
Processing waste and offal	I	I	I	I	I	I	I

*Summary of the effects of Alternative 1 on seabirds.* Monitoring levels under Alternative 1 (no action) represent the baseline with respect to the other alternatives. Under this alternative, there would be no changes to the current funding and observer deployment mechanism of the existing interim observer program. Thus, there would be no additional effects outside those analyzed in previous NEPA documents.

*Summary of the effects of Alternatives 2 - 7 on seabirds.* Alternatives 2 - 7 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 proposed under Alternatives 2 - 7 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.

### **3.2.6 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 effects on the listed species. Formal consultations, resulting in biological opinions, are conducted for Federal actions that may have an adverse effect 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 a likelihood exists of any take<sup>9</sup> 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)).

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<sup>9</sup>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)].

Though all the 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 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).

**Table 3.2-9 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
Northern Right Whale	<i>Balaena glacialis</i>	Endangered
Bowhead Whale <sup>1</sup>	<i>Balaena mysticetus</i>	Endangered
Sei Whale	<i>Balaenoptera borealis</i>	Endangered
Blue Whale	<i>Balaenoptera musculus</i>	Endangered
Fin Whale	<i>Balaenoptera physalus</i>	Endangered
Humpback Whale	<i>Megaptera novaeangliae</i>	Endangered
Sperm Whale	<i>Physeter macrocephalus</i>	Endangered
Snake River Sockeye Salmon	<i>Onchorynchus nerka</i>	Endangered
Short-tailed Albatross	<i>Phoebastria albatrus</i>	Endangered
Steller Sea Lion	<i>Eumetopias jubatus</i>	Endangered and Threatened <sup>2</sup>
Snake River Fall Chinook Salmon	<i>Onchorynchus tshawytscha</i>	Threatened
Snake River Spring/Summer Chinook Salmon	<i>Onchorynchus tshawytscha</i>	Threatened
Puget Sound Chinook Salmon	<i>Onchorynchus tshawytscha</i>	Threatened
Lower Columbia River Chinook Salmon	<i>Onchorynchus tshawytscha</i>	Threatened
Upper Willamette River Chinook Salmon	<i>Onchorynchus tshawytscha</i>	Threatened
Upper Columbia River Spring Chinook Salmon	<i>Onchorynchus tshawytscha</i>	Endangered
Upper Columbia River Steelhead	<i>Onchorynchus mykiss</i>	Endangered
Snake River Basin Steelhead	<i>Onchorynchus mykiss</i>	Threatened
Lower Columbia River Steelhead	<i>Onchorynchus mykiss</i>	Threatened
Upper Willamette River Steelhead	<i>Onchorynchus mykiss</i>	Threatened
Middle Columbia River Steelhead	<i>Onchorynchus mykiss</i>	Threatened
Spectacled Eider	<i>Somateria fishcheri</i>	Threatened
Steller's Eider	<i>Polysticta stelleri</i>	Threatened
Northern Sea Otter	<i>Enhydra lutris</i>	Candidate

<sup>1</sup> The bowhead whale is present in the Bering Sea area only.

<sup>2</sup> Steller sea lion are listed as endangered west of Cape Suckling and threatened east of Cape Suckling.

*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 the Alternative 4 suite of management measures 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 ask if Alternative 4 helps the Steller sea lion population size recover to some 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.* When the first Section 7 consultations for ESA listed Pacific salmon taken by the groundfish fisheries were done, only three evolutionary significant units (ESUs) of Pacific salmon were listed that ranged into the fishery management areas. Additional ESUs of Pacific salmon and steelhead were listed under the ESA in 1997, 1998, and 1999. Only the Snake River fall chinook salmon has designated critical habitat and none of the designated habitat is marine habitat (Table 3.2-8). In 2000, formal consultation was reinitiated for all twelve ESUs of ESA listed Pacific salmon that are thought to range into Alaskan waters. The resulting biological opinion determined that the groundfish fisheries were not likely to jeopardize the continued existence of these species. The FMP-level consultation included reconsideration of all of the listed species of Pacific salmon thought to range into the management area; this consultation redetermined that there was no jeopardy for all ESUs.

No new information is available on ESA listed salmon and the groundfish fisheries beyond what was considered in the December 22, 1999, biological opinion on the effects of the groundfish fisheries on listed salmon and the subsequent FMP level biological opinion.

*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 Incidental Take Statement (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 - 7:* 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 improvement of an observer monitoring program that contributes 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.

### 3.2.7 Ecosystem considerations

Section 4.9 of the 2004 TAC Specifications EA analyzed the effects of these fisheries on the ecosystem. Different ecosystem indicators were separated into categories related to physical oceanography, habitat, target groundfish, forage, other species, marine mammals, seabirds, and the aggregate indicators which relate to trophic levels of catch in the fishery management areas. Observations were made about each of the indicators followed by an interpretation of that observation with relation to ecosystem function.

Beginning with the 2003 SAFE reports, individual groundfish stock assessment chapters included an ecosystem assessment. Within each section are three subsections: (1) Ecosystem effects on stock; (2) Fishery effects on the ecosystem; and (3) Data gaps and research priorities. These provide information on how various ecosystem factors might be influencing the subject stock, how the specific stock fishery might be affecting the ecosystem, and what data gaps might exist that prevent assessing certain effects. Ecosystem indicators coupled with these individual stock ecosystem evaluations are interpretations aggregated to effects of all groundfish fisheries on the ecosystem.

Determinations of significance of impacts on the ecosystem issues of predator-prey relationships, energy flow and balance, and diversity are made from these individual groundfish stock assessment chapters. At 2004 TAC levels, fisheries within the management areas were predicted to have an insignificant impact on these issues. The alternatives proposed under this action 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, none of the alternatives are expected to have any significant negative impacts on the ecosystem.

### 3.2.8 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.

**Table 3.2-10 Summary of impacts of Alternatives 1-7 on benthic habitat**

Summary of Impacts:	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5	Alternative 6	Alternative 7
Removal of or damage to HAPC	I	I	I	I	I	I	I
Modification of nonliving substrate, and/or damage to small epifauna and infauna by fishing gear	I	I	I	I	I	I	I
Change in benthic biodiversity	I	I	I	I	I	I	I

This analysis focuses on the effects of monitoring fishing at the 2004 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 3.2-11 Habitat indicators of ecosystem function used in significance determination for Alternatives 1-7 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. The proposed Federal action to restructure the funding and deployment mechanism of the Observer Program is not anticipated to have additional impacts on EFH beyond those identified in previous analyses discussed above. Therefore, none of the proposed alternatives are expected to have a significant effect on EFH.

### 3.3 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 is 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. The proposed Federal action to restructure the funding and deployment mechanism of the Observer Program is 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, all of the action alternatives 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 (Alternatives 2-7) and potentially, the BSAI (Alternatives 5-7). The action could include only the groundfish vessels in the GOA, or it could also include halibut vessels, GOA-based processors, and various BSAI sectors. There is also an alternative to include all vessels and processors operating in the Federal groundfish or halibut fisheries (Alternative 7). No effects on the unique characteristics of this area are anticipated to occur with any 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, and observer wages.
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. Because the 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 by taking this action.

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 1.2 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 alternatives were subsequently added to include all fisheries. If the 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.
7. The proposed action is not expected to have any significant individual or **cumulative effect** on the environment. The action alternatives under consideration (Alternative 2-7) 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 will 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.
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 alternatives under consideration and any ESA-listed species in addition to those previously identified in other analyses. This consideration is detailed in Section 3.2.6.
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 for any of the proposed action alternatives. This issue is discussed in Section 2.7.
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.

### **3.4 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.

There is not expected to be any significant cumulative effect on the groundfish and halibut resource as a result of this action, as none of the alternatives change the groundfish or halibut quotas or general manner, timing, or location in which the fisheries operate. The alternatives under consideration were proposed to mitigate the problems with the existing interim Observer Program related to the quality of observer data and disproportionate costs. 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. The current program also results in disproportionately high observer costs for some sectors of the fisheries. This action would potentially improve the observer program to the extent that better, more reliable data would be collected by which to manage the identified fisheries. In addition, the program would be funded by a combination of a fee (based on ex-vessel value and/or daily observer costs) and potential Federal subsidies. This action is an attempt to increase the utility and quality of observer data, which, over time, may result in better management of the fisheries off Alaska.

# Chapter 4 Regulatory Impact Review: Economic Effects of the Alternatives

## 4.1 Introduction

This Regulatory Impact Review (RIR) evaluates an FMP amendment to establish a new system for procuring and deploying observers in the groundfish and halibut fisheries operating in the North Pacific. Seven alternatives are analyzed. All six of the action alternatives 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. 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 and/or Federal funds. All vessels and/or processors included in the new program would no longer be responsible for obtaining certain levels of coverage specified in regulation, and would instead be required to carry an observer when requested to do so by NMFS.

### 4.1.1 What is a regulatory impact review?

This RIR is required under Presidential Executive Order (E.O.) 12866 (58 FR 51735; October 4, 1993). The requirements for all regulatory actions specified in E.O. 12866 are summarized in the following statement from the 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 U.S. 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 U.S. 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 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 and need for action**

During the development of the 2002 regulations to extend the interim Observer Program, the Council and NMFS both 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 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.*

The Council reviewed a preliminary draft analysis in December 2003 which only considered alternatives which would change the structure of the Observer Program for the fisheries in the Gulf of Alaska. However, also in December, the Council received a report from NMFS detailing 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. NMFS was concerned about several issues that would arise under such a hybrid program, specifically that two different procedures would exist for addressing observer performance and conduct problems in the BSAI and the GOA fisheries, and the potential differences in observer remuneration between the two systems. This potential difference in observer wages could create shortages in observers between the two areas and lead to differences in data quality. Additionally, managing a hybrid system would create a larger administrative burden for the Observer Program.

At the February 2004 Council meeting, NMFS provided a letter to the Council stating that the agency had determined that effective procedures for addressing observer performance and data quality issues can only be put in place through a service delivery model that provides 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 that have direct contracts with NMFS.

Upon review of the NMFS letter, the Council tasked the OAC at its next 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. 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.

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 is 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 alternative types of fees for analysis (other than a fee based on ex-vessel value), specifically 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. These options were incorporated to create the existing suite of alternatives and options under consideration in this document.

#### 4.1.4 Description of the alternatives

The alternatives and program elements analyzed in this document are described in detail in Chapter 2. The six action alternatives 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 the following:

- 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. *GOA groundfish vessels only.*** Under this alternative, a new fee-based program would be established for GOA groundfish vessels, including GOA groundfish vessels under 60'. Regulations that divide the fleet into 0%, 30%, and 100% coverage categories would no longer apply to vessels in the program, and vessel operators would no longer be responsible for obtaining their own observer coverage. Under the new program, 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 would only be required to carry an observer when one is provided by NMFS. The fee would be based on a percentage of the ex-vessel value of each vessel’s GOA groundfish landings and would be collected through annual billing by NMFS.
- Alternative 3. *GOA groundfish vessels and halibut vessels only.*** This expands on Alternative 2 by including halibut vessels from all areas off Alaska. Fees would be collected from halibut landings as well as groundfish landings through annual billing by NMFS, and NMFS would have the authority to place observers on halibut vessels as well as groundfish vessels.
- Alternative 4. *GOA groundfish vessels, halibut vessels and GOA-based groundfish processors.*** This alternative expands on Alternative 3 by including GOA-based groundfish processors. However, in contrast to Alternatives 2 and 3, fees would be collected by processors at the time of landing, and fee proceeds would be submitted to NMFS on a quarterly basis.
- Alternative 5. *GOA groundfish vessels, halibut vessels, GOA-based groundfish processors, BSAI fixed gear CVs and BSAI pot vessels.*** This alternative expands on Alternative 4 by including BSAI fixed gear CVs (longline, jig, & pot) and BSAI pot CPs.
- Alternative 6. *GOA groundfish vessels, halibut vessels, GOA-based groundfish processors, all BSAI groundfish vessels under 125', and all BSAI pot vessels.*** This alternative expands on Alternative 5 by adding BSAI trawl CVs under 125', and BSAI trawl and longline CPs under 125'. 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 fee.
- Option 1:** Include longline CPs  $\geq 125'$ . This suboption would expand Alternative 6 by including longline CPs  $\geq 125'$  operating in the BSAI.

**Option 2:** Include non-AFA (H&G) trawl CPs  $\geq 125'$ . This suboption would expand Alternative 6 by including non-AFA trawl CPs  $\geq 125'$  (i.e., the H&G fleet).

**Option 3:** Include BSAI trawl CVs  $\geq 125'$ . (Staff recommend inclusion of this option). This option would allow all CVs operating in the BSAI to be covered under a single uniform program. Without this option, the predominantly AFA CV fleet operating in the BSAI would be split between two separate observer programs despite the fact that the two classes of vessels would in many cases be fishing side-by-side and delivering to the same processors.

**Alternative 7. *Comprehensive alternative. All groundfish vessels and processors and all halibut vessels.*** This alternative would establish a new fee-based Observer Program in which NMFS has a direct contract with observer providers for all GOA and BSAI groundfish and halibut fisheries. 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 fee.

In developing the alternatives, the Council also included several options that apply to more than one alternative. The following options affecting the scope of the program may be applied to more than one alternative:

**Option 4:** **Exclude GOA-based inshore processors.** (Alternatives 5 and 6). This option would exclude GOA-based inshore processors from the program under Alternatives 5 and 6. The effect of the alternative would be to establish a vessel-only program for the covered fisheries in the GOA and BSAI.

**Option 5:** **Establish an opt-in, opt-out provision for BSAI-based inshore processors.** (Alternatives 4 through 6). This option applies only if Option 4 is rejected. This option would allow each BSAI-based processor to determine for itself whether to opt-in or opt-out of the program. Processors opting into the program would pay observer fees on all groundfish and halibut landings they receive and would receive their observer coverage through the program. Processors electing to opt-out would pay observer fees on only those landings received from vessels that are participating in the program and would pay no fees on landings from vessels that are not participating in the program. The rationale behind this option is to provide certain BSAI-based processors with the option to join the program should they find that the majority of their landings are from vessels covered by the program. Each BSAI-based processor would have the opportunity to decide whether it makes sense to participate in the program based on how many of its deliveries are from vessels covered by the program.

**Option 6:** **Include CDQ fishing for participating vessels** (Alternatives 5 and 6). Under this option, vessels that participate in the program when fishing in non-CDQ fisheries would continue to be included in the program when fishing CDQ. This option would allow vessel operators to obtain their coverage through a single program throughout the fishing year and would allow them to switch back and forth between CDQ and non-CDQ fisheries without changing observers. Without this option, vessel operators could be forced to switch observers and observer providers when switching between CDQ and non-CDQ fishing and would be obligated to pay two separate types of fees depending upon whether the vessel is fishing CDQ or non-CDQ.

An additional option applies to the type of fee program selected.

**Option 7: Uniform fee program.** (Alternatives 6 and 7) Under this option, a uniform ex-vessel value fee would be required for all vessels and processors covered by the program in place of the two separate fee programs that are contained in Alternatives 6 and 7. Adoption of this option in conjunction with Alternative 7 would establish a program similar to the Research Plan that was implemented in 1994 and repealed in 1995.

## **4.2 Description of the fishery**

The different classes of groundfish fishing and processing operations that might be affected by these regulations are described in detail in Section 3.9 (Social and Economic Conditions) of the Final PSEIS (NMFS, 2004). Section 3.9.2 provides extremely detailed fishing and processing sector profiles. Readers interested in additional detail are referred to the Final PSEIS.

In addition to affecting the groundfish and halibut fishing industry, the alternatives and options considered in this document would affect the current and future observer providers and observers.

Table 4.6-1 summarizes information about the numbers of groundfish and halibut fishing operations affected by the alternatives. As noted above, all of the alternatives and options would directly affect observer provider companies and observers that operate in fisheries covered by the program restructuring alternatives. Table 4.6-1 also provides estimates of the numbers of vessels by size class that participated in the halibut IFQ fishery and the number of those vessels that participated in both groundfish and halibut fisheries.

**Table 4.2-1 Estimated numbers and types of entities directly affected by the alternatives**

Sector	Permit Type	Vessel class	2000-2002 average							Estimated number of entities affected by the alternatives									
			GOA	BSAI	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	
Catcher processor	Groundfish only	AFA CP ≥125'	0	16	0	0	0	0	0	0	0	0	0	0	0	0	0	16	
		Pot CP <125'	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1
		Longline CP <125'	12	13	0	12	12	12	12	12	12	12	12	12	12	12	12	12	13
		Longline CP ≥125'	9	29	0	9	9	9	9	9	9	9	9	9	9	9	9	29	29
		Pot CP ≥125'	2	5	0	2	2	2	2	2	2	2	2	2	2	2	2	2	5
		Trawl CP <125'	5	7	0	5	5	5	5	5	5	5	5	5	5	5	5	5	7
		Trawl CP ≥125'	13	15	0	13	13	13	13	13	13	13	13	13	13	13	13	13	15
		Longline CP < 125'	24	12	0	0	24	24	24	24	24	24	24	24	24	24	24	24	24
Catcher vessel	Halibut only	AFA Trawl 60'-124'	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	
		AFA Diversified Trawl <125'	3	3	0	3	3	3	3	3	3	3	3	3	3	3	3	3	
		Non-AFA Trawl 60'-124'	14	3	0	14	14	14	14	14	14	14	14	14	14	14	14	14	
		Longline ≥60'	64	35	0	64	64	64	64	64	64	64	64	64	64	64	64	100	
		Pot ≥60'	29	14	0	29	29	29	29	29	29	29	29	29	29	29	29	43	
		Fixed Gear 33'-59'	478	53	0	478	478	478	478	478	478	478	478	478	478	478	478	531	
		Fixed Gear <32'	59	26	0	59	59	59	59	59	59	59	59	59	59	59	59	86	
		Non-AFA Trawl <60'	21	2	0	21	21	21	21	21	21	21	21	21	21	21	21	23	
		AFA Trawl ≥125'	1	30	0	1	1	1	1	1	1	1	1	1	1	1	1	30	
		AFA Trawl 60'-124'	8	43	0	8	8	8	8	8	8	8	8	8	8	8	8	43	
Catcher vessel	Groundfish only	AFA Diversified Trawl <125'	18	24	0	18	18	18	18	18	18	18	18	18	18	18	18	24	
		Non-AFA Trawl 60'-124'	20	5	0	20	20	20	20	20	20	20	20	20	20	20	20	25	
		Longline ≥60'	6	1	0	6	6	6	6	6	6	6	6	6	6	6	6	7	
		Pot ≥60'	36	67	0	36	36	36	36	36	36	36	36	36	36	36	36	67	
		Fixed Gear 33'-59'	98	11	0	98	98	98	98	98	98	98	98	98	98	98	98	109	
		Fixed Gear <32'	38	11	0	38	38	38	38	38	38	38	38	38	38	38	38	49	
		Unknown CV	7	7	0	7	7	7	7	7	7	7	7	7	7	7	7	7	
		Non-AFA Trawl <60'	23	5	0	23	23	23	23	23	23	23	23	23	23	23	23	28	
		Longline ≥60'	5	2	0	0	7	7	7	7	7	7	7	7	7	7	7	7	
		Pot ≥60'	1	2	0	0	3	3	3	3	3	3	3	3	3	3	3	3	
Shoreside processors	Halibut only	Fixed Gear 33'-59'	428	9	0	0	437	437	437	437	437	437	437	437	437	437	437	437	
		Fixed Gear <32'	304	226	0	0	530	530	530	530	530	530	530	530	530	530	530	530	
		AFA inshore	4	6	0	0	4	4	4	4	4	4	4	4	4	4	4	6	
		Other Bering Sea	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	8	
		Alaska Peninsula/Aleutian Islands	5	9	0	0	5	5	5	5	5	5	5	5	5	5	5	9	
		Kodiak	15	11	0	0	15	15	15	15	15	15	15	15	15	15	15	15	
		South Central	68	8	0	0	68	68	68	68	68	68	68	68	68	68	68	68	
		Floater	4	4	0	0	4	4	4	4	4	4	4	4	4	4	4	4	
		Mothership	1	3	0	0	1	1	1	1	1	1	1	1	1	1	1	3	
		<b>Total</b>		<b>1825</b>	<b>727</b>	<b>0</b>	<b>966</b>	<b>2067</b>	<b>2078</b>	<b>2249</b>	<b>2374</b>	<b>2390</b>	<b>2390</b>	<b>2390</b>	<b>2390</b>	<b>2390</b>	<b>2390</b>	<b>2390</b>	<b>2390</b>

The following sections provides a short summary of each type of vessel listed in Table 4.6-1.

#### 4.2.1 Catcher processors (CPs)

CPs carry the equipment and personnel they need to process the fish that they themselves catch. In some cases CPs also process fish harvested for them by CVs and transferred to them at sea. 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 included in Alternative 7. The remaining types of CPs that may be affected by some or all of the alternatives are summarized below.

*Trawl Head And Gut (H&G) CPs.* These vessels are generally limited to headed and gutted 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. Trawl H&G 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 by market constraints and only rarely are able to catch the entire TAC of the target fisheries available to them. Trawl H&G CPs that fish in the GOA would be affected by Alternatives 2 through 7. Trawl H&G CPs that limit their operations to the BSAI would be affected by Alternatives 6 and 7.

*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. They generally use pot gear, but may also use longline gear. They produce whole or headed and gutted groundfish products, some of which may be frozen in brine rather than blast frozen. Vessels in the pot CP sector predominantly use pot gear to harvest BSAI and GOA groundfish resources. The crab fisheries in the BSAI are the primary fisheries for vessels in the sector. Groundfish harvest and production are typically secondary activities. Vessels average about 135 feet LOA and are equipped with deck cranes for moving crab pots. Most pot vessel owners use their pot gear for harvesting groundfish. However, some owners change gear and participate in longline fisheries. Pot CPs  $\geq$  125 feet are subject to somewhat different observer requirements than other large CPs; all pot vessels  $\geq$  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 feet. Therefore all pot CPs would be affected by Alternatives 5 through 7, and those fishing for groundfish in the GOA would also be affected by Alternatives 2 through 4.

*Longline CPs.* These vessels, also known as freezer longliners, use longline gear to harvest groundfish. Most longline CPs are limited to headed and gutted products, and in general are smaller than trawl H&G CPs. The longline CP sector evolved because regulations applying to this gear type provide more fishing days than are available to other gear types. Longline CP vessels are able to produce relatively high-value products that compensate for the relatively low catch volumes associated with longline gear. These vessels average just over 130 feet LOA. On average over 2000-2002, 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 longline CP vessels operate in both the BSAI and GOA. Those vessels fishing in the GOA would be affected by all of the alternatives. Longline CPs operating exclusively in the BSAI could be affected by Alternatives 5 through 7.

#### 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 June 2000, 20 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 percent 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.<sup>10</sup> 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 4 and 5. Motherships operating exclusively in the BSAI would be affected by Alternatives 5 through 7.

#### 4.2.3 Groundfish catcher vessels (CVs)

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

*AFA-qualified 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 feet to 193 feet, though most of the vessels fishing BSAI pollock are from 70-130 feet. 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. Those AFA CVs that fish in the GOA would be affected by Alternatives 2 through 7. Those AFA CVs less than 125' LOA that fish in the BSAI would also be affected by Alternatives 5 through 7.

*Non-AFA trawl CVs  $\geq$  60' LOA.* Includes all CVs greater than or equal to 60 feet 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 60 feet. Vessels must have harvested a minimum of 5 tons of groundfish in a year to be considered part of this class. The revenue from five tons of Pacific cod at \$0.20 per pound is about \$2,200. Non-AFA trawl CVs greater than or equal to 60 feet also tend to concentrate their efforts on groundfish, obtaining more than 80 percent of ex-vessel revenue from groundfish harvests. Most, if not all of these vessels are less than 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. All of the non-AFA trawl CVs would be affected by Alternatives 2 through 7.

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<sup>10</sup>In 1996, whiting accounted for about 12 percent of the mothership's total revenue.

*Pot CVs.* 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 longline 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 feet, 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.<sup>11</sup> All pot CVs that fish in the GOA would be affected by Alternatives 2 through 7. All pot vessels that fish in the BSAI would be affected by Alternatives 5- 7.

*Hook-and-line CV  $\geq$  60' LOA.* A large majority of the longline CVs in this class operate solely with longline 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 feet long with an average length of about 70 feet. 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  $\geq$ 60' LOA that fish in the GOA would be affected by Alternatives 2 through 7. CVs  $\geq$ 60' that fish in the BSAI would be affected by Alternatives 5 through 7.

*CVs less than 60' LOA (all gear types).* This CV class primarily uses trawl and longline gear although a few vessels also use pot gear. This group of vessels is allowed to participate in the State of Alaska commercial seine fisheries for salmon. 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 less than 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 allocation was extended in 2004 with the implementation of BSAI Amendment 77. All CVs <60' that fish in the GOA would be affected by Alternatives 2 through 7. CVs <60' that fish in the BSAI would be affected by Alternatives 5 through 7.

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. A large number of vessels of this size have been built for the Bristol Bay fishery and other salmon fisheries in Alaska. Similar size restrictions do not apply to other salmon management areas in the state. Vessels in this class typically were designed for salmon fisheries. The vessels may use a mix of longline, jig, and sometimes pot gear to harvest halibut and groundfish before or after the salmon season. Most vessels in the under 60'

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<sup>11</sup>Amendment 64 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. Most recently, the Council approved BSAI Amendment 77 in June 2003, which, among other actions, establishes separate BSAI Pacific cod allocations for the pot CP and pot CV sectors. This amendment was effective on January 1, 2004.

length class 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 fishing vessels.* Only hook and line gear can be used in the halibut fishery and the vast majority of the halibut catch is taken with longline gear. 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 the final consumers. Many of the longline fishing vessels operate solely with longline 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 quite diverse. Most vessels are less than 60 feet LOA and most of the halibut vessels also participate in the groundfish fisheries. In 2003, 1,385 fishing vessels reported IFQ halibut landings, 1,485 or 90 percent of these vessels were less than 60 feet LOA and 1,149 or 70 percent of these vessels also participated in the groundfish fishery. These vessels would be affected by Alternatives 3 through 7. To the extent that some of these vessels also fish for groundfish in the GOA they would also be affected by Alternative 2.

#### **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 4 through 7, and those that only process groundfish harvested in the BSAI would be affected by Alternatives 5-7.

*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 4 through 7, and all non-AFA inshore processors could potentially be affected by Alternatives 5 through 7. 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 1999, ten Alaska Peninsula and Aleutian Islands plants participated in the groundfish fishery. Between 1991 and 1999, almost all of the facilities reported receiving fish every year from the BSAI. In 1999, these facilities processed 66,635 round weight tons, of which 43,646 tons (66 percent) was pollock and 19,402 tons (30 percent) was Pacific cod. Also in 1999, 36,652 tons (55 percent of the total) came from the Western Gulf and 21,643 tons (32 percent) 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 1999, all of the facilities processed Pacific cod and Atka mackerel, rockfish, sablefish, and other flatfish (ARSO) and 9 of the 10 processed pollock and flatfish. The facilities processed a total of 101,354 round weight tons of groundfish in 1999, 51 percent of which was pollock and 30 percent of which was Pacific cod. All of the plants receive fish from the Central Gulf subarea every year. Most of the plants also receive fish from the Western Gulf and Eastern Gulf subareas.

*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. There have been 16 to 22 Southcentral Alaska inshore processors participating in the BSAI and GOA groundfish fishery every year since 1991. In 1999, there were 18 plants in southcentral Alaska processing groundfish. All 18 plants reported processing Pacific cod, flatfish, and ARSO in 1999. In addition, 16 of the 18 reported processing pollock. The facilities processed a total of 10,846 round weight tons of groundfish, 42 percent of which was comprised of Atka mackerel, rockfish, sablefish, and other flatfish, and 31 percent of which was Pacific cod. Virtually all of the plants receive fish from the Central Gulf subarea every year. Many also receive fish from the Eastern Gulf subarea, and some receive fish from the Western Gulf subarea. In 1998 and 1999, fewer than four processors took deliveries from CVs operating in the BSAI.

Shoreside processors that process between 500 metric tons (mt) and 1000 mt of groundfish in a calendar month currently are required to have observers 30 percent 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. Table 4.6-2 show the firms that had 100% and 30% observer coverage in 1996-1998.

**Table 4.2-2 Shoreside plants with 30% and 100% coverage requirements during 1996-1998**

<i>100% Observer Coverage Plants</i>	<i>Area</i>	<i>Primary Products, 1996-1998</i>
Alaska Pacific Seafoods	Kodiak	Pollock: surimi, fillet; Pcod: fillet
Alyeska Seafoods	Dutch Harbor	Pollock: surimi, fishmeal, fish oil
Arctic Enterprise		Pollock: fillet, fishmeal
Cook Inlet	Kodiak	Pollock: H&G, fillet
Cook Inlet	Seward	Pollock: whole, fillet
Int'l Seafoods	Kodiak	Pollock: fillet, surimi; Pcod:fillet
King Crab, Inc		Pollock: fillet; Pcod: fillet
Northern Victor		Pollock: fishmeal, fillet
Ocean Beauty	Kodiak	Pollock: fillet; Pcod:fillet
Peter Pan	King Cove	Pcod: fillet, salted; Pollock:fillet
Star of Kodiak	Kodiak	Pollock: fillet, surimi
Trident Seafoods	Akutan	Pollock: surimi, fishmeal, fillet
Trident Seafoods	Sand Point	Pollock: surimi, meal, fillet; Codfillet
Unisea	Dutch Harbor	Pollock: surimi, fishmeal, fish oil
Western Alaska	Kodiak	Pollock: surimi, fillet
Westward Seafoods	Dutch Harbor	Pollock: surimi, fishmeal, fish oil
<b>30% Observer Coverage Plants</b>		
Deep Creek Custom Pack	Homer	Pcod: whole
North Pacific Processors	Cordova	
Resurrection Bay	Seward	Sablefish: H&G; Pcod: H&G
Sahalee of AK	Anchorage	Sablefish: H&G; Pcod: H&G
Seward Fisheries	Seward	Sablefish: H&G;

#### 4.2.5 Observer provider companies

Four observer provider companies are currently active in the North Pacific, reduced from six in 2000. The companies that are currently permitted by NMFS and actively providing observers in North Pacific groundfish fisheries are: Alaskan Observers, Inc. (AOI); Northwest Observers, Inc. (NWO); Saltwater Observers, Inc. (SWI); and TechSea International (TSI). Of these, three are based in the Seattle area and one is based in Anchorage. The principal activity of all of these companies is providing observers for the North Pacific Groundfish Observer Program, but 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.

#### 4.3 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 status quo, 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 action alternatives, 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 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 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 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 (infrequent coverage).** These are fisheries in which NMFS is not dependent on observer data for inseason management. Coverage levels in Tier 4 fisheries are expected to be low and infrequent and used for special data needs and research rather than inseason management. Halibut vessels, jig vessels, and groundfish vessels <60' are likely to fall into 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 such requests are unlikely to occur on a regular basis.

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 required in Tier 1 and Tier 2 fisheries may require some adjustment and consolidation under the restructured program, none of the alternatives under consideration would completely repeal the coverage requirements for vessels in Tier 1 and Tier 2 fisheries. 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 will fall into Tier 4 and will be required to carry an observer when requested, but can expect such coverage to be a relatively rare occurrence.

#### **4.3.1 Description of and basis for Tier 1 coverage**

Under existing regulations, four management programs (CDQ, AFA, Steller sea lion protection, and the upcoming groundfish retention standard for non-AFA trawl catcher processors  $\geq 125'$ ) impose 200% coverage on some or all vessels and processors participating in the program. 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 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 longline 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.
- **Amendment 79 GRS:** Non-AFA trawl CPs  $\geq 125'$  subject to the Amendment 79 groundfish retention standard (GRS).

During the development of each of these four management programs, 200% coverage was determined to be necessary for a variety of reasons. The following is a summary of the stated rationale for 200% coverage in each program in which it is 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.
- 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 AFA-instituted increase of the pollock CDQ allocation from 7.5 to 10 percent of the annual pollock TAC. 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 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 program 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 4.13-1. Each CDQ set or haul must 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 longline CPs are required to carry 200% observer coverage.

**Table 4.3-1 CDQ program coverage requirements.**

<i>Vessel or Processor Category</i>	<i>CDQ Observer Requirements</i>
Catcher, < 60 ft, any gear	none
Catcher, ≥ 60 ft, trawl gear	1 Level 2 observer
Catcher, ≥ 60 ft, nontrawl gear, Option 1 <sup>1</sup>	1 Level 2 observer
Catcher, ≥ 60 ft, nontrawl gear, Option 2 <sup>2</sup>	1 lead Level 2 observer
CP, trawl and motherships- <i>directed fishing for pollock</i>	1 lead Level 2 observer and 1 regular observer
CP, trawl and motherships- <i>not directed fishing for pollock</i>	1 lead Level 2 and 1 Level 2 observer
CP, longline gear	1 lead Level 2 and 1 Level 2 observer
CP, pot gear	1 lead Level 2 observer
Shoreside processor <sup>3</sup> , 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 <sup>1</sup>	1 Level 2 observer per CDQ delivery. May use vessel observer under certain conditions. <sup>4</sup>
Shoreside processor, deliveries from vessels using nontrawl gear, Option 2 <sup>2</sup>	no CDQ observer required for delivery

<sup>1</sup>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.

<sup>2</sup>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.

<sup>3</sup>Includes stationary floating processors.

<sup>4</sup>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.

While this analysis does not currently propose any changes to CDQ coverage requirements, the Council and NMFS may wish to consider whether some of these requirements can be consolidated upon implementation of a new program restructuring that includes some or all CDQ fisheries.

### ***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 is silent with respect to observer and scale requirements for AFA motherships and inshore processors, however NMFS, in developing regulations to implement the AFA, 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 was 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 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 CPs and AFA CVs. 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 4.3-2 provides a summary of AFA observer coverage requirements.

**Table 4.3-2 Observer requirements for AFA CPs, motherships, inshore processors, and CVs.**

<i>Vessel or processor type</i>	<i>Coverage requirement</i>
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 <sup>1</sup>
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. <sup>1</sup>
AFA inshore processor	One observer for each 12 consecutive 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.

<sup>1</sup>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 lottery system in which vessels wishing to fish for Atka mackerel inside Steller sea lion critical habitat are distributed between Areas 542 and 543 in equal numbers and 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.

### ***BSAI Amendment 79 groundfish retention standard***

Under Amendment 79 to the BSAI FMP, adopted by the Council in June 2003, all non-AFA trawl CPs fishing in the BSAI will be subject to a minimum GRS for all groundfish fisheries (excluding pollock target fisheries). The GRS would not supercede the 100 percent retention standard already set for pollock and Pacific cod under existing IR/IU regulations. In addition to establishing a GRS, the regulation would require that processors create product that yield at least 15 percent from each retained fish harvested. The GRS requirement set up the following annual retention requirements for non-AFA CPs  $\geq 125'$ :

<u>Year</u>	<u>GRS</u>
2005	65 percent
2006	75 percent
2007	80 percent
2008	85 percent

The GRS requirement under Amendment 79 also specified that all regulated vessels are to use NOAA Fisheries-certified scales to determine total catch and either maintain 200% observer coverage for verification that all fish are being weighed, or use an alternative scale use verification plan approved by NOAA Fisheries. The 200% coverage requirement for GRS fisheries 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 proposed rule for BSAI Amendment 79 is expected in 2005.

#### **4.3.2 Description of and basis for Tier 2 coverage**

Under existing regulations, all trawl and longline vessels  $\geq 125'$  operating 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 are a legacy of the Observer Plan 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  $\geq 125'$  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  $\geq 60'$  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 4.3-1. Finally, under BSAI Amendment 79, CPs subject to the new groundfish retention standard have the option of operating with 100% coverage if they use an alternative scale use verification plan approved by NOAA Fisheries 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 Amendment 79, the monitoring demands of each respective program require the presence of the observer. The monitoring plans for CDQ and Amendment 79 GRS requirement 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  $\geq 125'$  operating in the GOA
- longline CVs and CPs  $\geq 125'$  operating in both the GOA and BSAI
- AFA CVs  $\geq 125'$  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.

NMFS and the Council will need to carefully consider the monitoring requirements for each of these five classes of vessels and processors that currently have 100% coverage requirements to determine which should continue to be required to maintain 100% coverage under a restructured program, and which could be subject to more flexible coverage under Tier 3. Recall that under Tier 3, NMFS deploys observers where they can most effectively meet the multiple data collection and monitoring requirements of the various Tier 3 fisheries. As noted in Chapter 2, criteria for each tier structure and the assignment of vessels and processors to different tier levels has not received thorough review by NMFS or the public. Therefore, tier level assignments contained within this document should be treated as preliminary proposals for discussion purposes only.

**However, three of the four groups of vessels that currently have 100% coverage requirements are tentatively proposed for inclusion in Tier 3: (1) CVs  $\geq 125'$ , (2) hook-and-line catcher processors  $\geq 125'$ , and (3) non-AFA inshore processors.** The rationale for this change is as follows:

- *Catcher vessels*  $\geq 125'$ . Most if not all CVs  $\geq 125'$  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 and 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, the primary location for catch accounting is the processing plant rather than the vessel, and all pollock landings are weighed on certified scales and observed by a plant observer. The primary task of vessel observers 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  $\geq 125'$ . Some larger CVs have the ability to do extensive at-sea sorting because they load their fish holds via conveyer systems and that raises additional concerns about possible at-sea sorting if observers are not present. In the BSAI Pacific cod fishery, the operational disparity between AFA CVs greater than and less than 125' is even smaller. In fact, many of the larger AFA CVs have been designed so

specifically to operate in the high-volume midwater pollock fishery that they do not generally engage in bottom trawling for Pacific cod because it is less efficient for them to do so than for smaller, more versatile CVs. Consequently, the number of AFA CVs  $\geq 125'$  that operate in the BSAI Pacific cod fishery is lower than in the AFA pollock fishery and in the Pacific cod fishery there is less disparity in the groundfish volumes harvested by vessels greater than and less than 125'.

However, because at-sea discards of pollock is a concern across the entire AFA CV fleet, it may be appropriate to consider including all AFA CVs in the Tier 3 category only with the inclusion of a video monitoring requirement to ensure that catch is not sorted or discarded at sea. A vigorous 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 be accomplished at the processor. 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.

- *Hook-and-line catcher processors  $\geq 125'$  (Freezer longline vessels).* Because of the inshore/offshore allocation regime in the GOA, longline CPs  $\geq 125'$  operate primarily in the BSAI Pacific cod fishery, and to a lesser extent in the halibut/sablefish IFQ fishery. In the BSAI Pacific cod fishery, the freezer longline fleet is divided fairly evenly between vessels over and under 125', meaning that half the fleet is currently subject to 30% coverage and the other half of the fleet is currently subject to 100% coverage. However, these two size classes of freezer longliners operate in a very similar fashion and tend to harvest similar volumes of groundfish. This is because many freezer longline vessels 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 longline 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 longline 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. For this reason it may not make sense to maintain two separate coverage levels for the freezer longline fleet based on vessel length.
- *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 be grouped into the Tier 3 category and would be subject to regular observer coverage when requested to receive and observer by NMFS. This will provide NMFS with the flexibility to deploy additional observers at sea if it is determined that at-sea coverage is a higher priority than 100% coverage at all higher-volume inshore processors. 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 when such observers may be more useful if deployed elsewhere.

It should be emphasized that inclusion of a fishery in the proposed new four-tier coverage system is dependent on inclusion in the overall restructured Observer Program. In other words, the tier structure would apply only to those fisheries that are included in the preferred alternative. Therefore, the proposed inclusion of CVs and freezer longliners  $\geq 125'$  in the new Tier 3 classification is dependent on their being included in the preferred alternative. This would only be the case if the Council includes these vessels in the program as an option under Alternative 6, or selects Alternative 7 as the preferred alternative. In all other instances, such vessels would remain in their existing coverage categories under the current pay-as-you-go regulations because they would not be included in the restructured Observer Program.

### 4.3.3 Description of and basis for Tier 3 coverage

Under all of the action 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. All Tier 3 fisheries 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, 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 porpoise bycatch in the tuna fishery) 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.

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 coverage present in Tier 3 fisheries. Table 4.3-3 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 4.3-3, in every fishery for which observers are currently deployed, data is used for a wide variety of purposes.

**Table 4.3-3 Percentage of total catch that was observed (sampled for species composition) by gear type and fishery in 2001, 200, and 1997**

<b>BSAI fisheries</b>			<b>Primary current uses of observer data</b>											
<b>Gear</b>	<b>Target</b>	<b>Percent of BLEND total catch observed</b>			<b>Catch comp. and monitoring</b>	<b>Halibut PSC</b>	<b>Crab PSC</b>	<b>Salmon trawl bycatch</b>	<b>Seabird bycatch</b>	<b>Individual vessel catch monitoring</b>	<b>Stock assessment modeling</b>	<b>Other mgt. programs</b>	<b>Data analysis for proposed mgt. measures</b>	<b>Posting of vessel specific weekly bycatch rates</b>
		<b>2001</b>	<b>2000</b>	<b>1997</b>										
Longline	Pacific cod	52%	53%	66%	X				CDQ	X		X	X	
	Sablefish	23%	25%	19%	X				CDQ	X		X	X	
	Turbot	78%	65%	55%	X				CDQ	X		X	X	
Pot	Pacific cod	28%	15%	24%	X					X		X	X	
	Atka mackerel	72%	72%	71%	X	X			CDQ and SSL limits	X	VIP	X	X	
Trawl	Pollock	76%	77%	63%	X	X	X		AFA, CDQ, SSL CH limits	X	VIP	X	X	
	Pacific cod	38%	38%	65%	X	X	X		CDQ	X	VIP	X	X	
	Flatfish <sup>1</sup>	65%	68%	52%	X	X	X		CDQ	X	VIP	X	X	
	Rockfish	72%	89%	73%	X	X	X		CDQ	X	VIP	X	X	
	Yellowfin sole	45%	49%	58%	X	X	X		CDQ	X	VIP	X	X	
<b>GOA fisheries</b>														
<b>Gear</b>	<b>Target</b>	<b>Percent of BLEND total catch observed</b>			<b>Catch comp. and monitoring</b>	<b>Halibut PSC</b>	<b>Crab PSC</b>	<b>Salmon trawl bycatch</b>	<b>Seabird bycatch</b>	<b>Individual vessel catch monitoring</b>	<b>Stock assessment modeling</b>	<b>Other mgt. programs</b>	<b>Data analysis for proposed mgt. measures</b>	<b>Posting of vessel specific weekly bycatch rates</b>
		<b>2001</b>	<b>2000</b>	<b>1997</b>										
Longline	Pacific cod	14%	6%	9%	X				X				X	
	Rockfish	5%	3%	3%	X				X				X	
	Sablefish	23%	22%	8%	X								X	
Pot	Pacific cod	10%	11%	3%	X								X	
	Pollock	18%	25%	32%	X						VIP	X	X	
Trawl	Pacific cod	18%	12%	17%	X						VIP	X	X	
	Deepwater flat	18%	28%	22%	X						VIP	X	X	
	Flatfish <sup>2</sup>	19%	20%	20%	X						VIP	X	X	
	Rockfish	39%	41%	48%	X						VIP	X	X	
	Rex sole <sup>3</sup>	54%	40%	(4)	X							VIP	X	

SOURCE: NMFS Alaska Region, June 2002 from BLEND and Observer databases

<sup>1</sup>Includes "other" flatfish, flathead sole, and rock sole

<sup>2</sup>Includes flathead sole target

<sup>3</sup>Includes arrowtooth target

<sup>4</sup>No comparable data in 1997

#### 4.3.4 Description of and basis for Tier 4 coverage

The remaining groundfish and halibut fisheries that do not fall into Tiers 1 through 3 would be categorized as Tier 4 fisheries. These are fisheries where coverage levels would be low and infrequent, and observer data would be used primarily for special data needs and research rather than inseason management. 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.

- *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.

In sum, the proposed classification of each fishery into the four tiers is shown in **Table 2.3-1 in Chapter 2**. Note that while the tier classifications closely match the existing coverage requirements, there are several 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 4.3.2.

#### 4.4 Direct and indirect costs of observer coverage under the alternatives

Under Alternative 1, vessels currently 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 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.

Under Alternatives 2 through 7, the direct costs to vessels for observer coverage includes: (1) the ex-vessel fee percentage, (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 while waiting for an observer to arrive in port. These indirect costs are not expected to vary between the alternatives, except to the extent that coverage levels would vary under the alternatives.

Table 4.4-1 provides a summary of the 2000-2002 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. The estimated costs of observer coverage as a percentage of ex-vessel value for vessels currently required to carry observers at least 30% of the time ranges from 0.97% for AFA trawl vessels 60'-124' LOA fishing for groundfish in the BSAI, to 9.99% for longline vessels  $\geq 60'$  fishing for groundfish in the BSAI. The wide disparity in observer costs for similar longline vessels fishing in the GOA and BSAI may indicate that some BSAI landings for this vessel class were mis-attributed to the GOA. The second and third highest average observer cost is 6.34% for pot CPs  $<125'$  LOA in the BSAI, and 4.89% for longline CPs  $\geq 125'$  in the BSAI.

**Table 4.4-1 2000-2002 average annual number of observer coverage days, estimated cost in dollars, groundfish ex-vessel value in dollars, and observer costs as a percentage of groundfish ex-vessel value**

Vessel type and class		Observer days		Observer costs in dollars		Groundfish ex-vessel value in dollars		Obs. cost as a % of ex-vessel value	
		GOA	BSAI	GOA	BSAI	GOA	BSAI	GOA	BSAI
Catcher processor	AFA CP	0	5,298	0	1,880,672	0	115,317,845	0.00%	1.63%
	Longline CP $< 125$	310	1,477	109,883	524,383	8,042,095	11,378,056	1.37%	4.61%
	Longline CP $\geq 125$	141	6,712	49,901	2,382,914	2,896,002	48,709,378	1.72%	4.89%
	Pot CP $<125$	19	20	6,594	7,251	138,731	114,351	4.75%	6.34%
	Pot CP $\geq 125$	51	165	18,059	58,621	513,085	1,368,942	3.52%	4.28%
	Trawl CP $< 125$	179	625	63,428	221,992	1,802,868	9,210,508	3.52%	2.41%
	Trawl CP $\geq 125$	226	4,168	80,281	1,479,707	5,286,664	52,585,679	1.52%	2.81%
Catcher vessel	AFA Diversif. Trawl $< 125$	571	498	202,705	176,672	10,183,486	11,917,371	1.99%	1.48%
	AFA Trawl $\geq 125$	1	4,087	355	1,451,003	confidential	78,187,154	confidential	1.86%
	AFA Trawl 60-124	41	1,908	14,673	677,458	990,540	70,073,066	1.48%	0.97%
	Longline $\geq 60$	543	425	192,647	150,993	16,810,424	1,510,975	1.15%	9.99%
	Non-AFA Trawl 60-124	890	58	316,068	20,472	13,061,097	623,474	2.42%	3.28%
	Pot $\geq 60$	215	676	76,325	239,980	5,154,738	9,292,662	1.48%	2.58%
	Unknown CV	9	1	3,077	355	220,333	1,427,986	1.40%	0.02%
Inshore/mothership processor	AFA Inshore	0	925	0	328,375	2,464,944	137,460,380	0.00%	0.24%
	Alaska Peninsula/Aleutians	0	0	0	0	250,327	4,603,932	0.00%	0.00%
	Floater	12	197	4,142	70,053	1,023,293	5,579,031	0.40%	1.26%
	Kodiak	1,288	20	457,358	7,100	46,195,944	4,308,520	0.99%	0.16%
	Mothership	0	936	0	332,280	30,204	21,477,653	0.00%	1.55%
	Other Bering Sea	0	23	0	8,165	126	438,701	0.00%	1.86%
	Southcentral	95	0	33,607	0	39,099,745	229,573	0.09%	0.00%
Total		4591	28219	1629103	10018446	125301715	585815237	1.30%	1.71%

<sup>1</sup>Based on an estimated daily average cost of \$355/day for 2000-2002 which includes estimated travel costs of \$25/day and meal costs of \$15/day.

#### **4.4.1 Estimating coverage costs under the alternatives: Basis for daily coverage cost estimates and high and low fee percentage endpoints**

Under the proposed 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 2 - 7); or (2) a daily observer fee based on the number of fishing days (proposed only under Alternatives 6 and 7). 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 Alternatives 6 and 7), 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 2 - 7), 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 NMFS.

#### **4.4.2 Estimating the daily costs of coverage under the alternatives**

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 would only be resolved by the Department of Labor (DOL) rather than 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.<sup>12</sup> 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 may be useful regarding these requirements and how they pertain to fishery observers. The DOL has offered to provide training and guidance to NOAA contracting officers, observer providers, and other interested parties as appropriate on the SCA and FLSA. Information from these sessions would be summarized and made available to the public.<sup>13</sup>

**It should be emphasized that the requirements of the FLSA apply to observers working in the North Pacific regardless of whether Council chooses to adopt a system of direct Federal contracting under one of the action alternatives, or chooses to remain with the no action alternative.** In other words, if observers are legally entitled to overtime under a prevailing wage determination established by the DOL under a SCA contract, then they would also be legally entitled to overtime pay under the no action alternative in which wages are established solely through negotiation between observers and observer providers.

Although NMFS is not directly responsible for establishing prevailing wages and 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 choose to 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 exempt from the overtime provisions of the FLSA, or technicians and subject to the overtime provisions of the FLSA.
- **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 chose to clarify this issue as part of the statutory authorization required for any of the action 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.

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<sup>12</sup>Memo from William Hogarth to Terry Lee, November 13, 2003.

<sup>13</sup>Letter from William Hogarth to Chris Oliver, September 27, 2004.

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 with absolute certainty at this time. For this reason, and given the rationale provided above, the cost estimates contained in this section are based on two assumptions:

Assumption 1: SCA prevailing wage determinations for North Pacific fisheries are likely to be consistent with the terms of the existing CBA governing observer salaries in the North Pacific.

Assumption 2 : Observers will continue to be paid on the basis of a daily wage and will not be entitled to overtime pay under the FLSA.

Until the issue of overtime pay for observers is resolved, the cost estimates contained within this analysis should be considered the best information available at this point in time.

#### **4.4.3 Establishing ex-vessel value fee percentages under the alternatives: Proposed high and low fee percentage endpoints**

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 of each species.

Regardless of the alternative chosen, setting an initial fee percentage is one of the biggest decision points in this amendment for the Council. The fee percentage (and the level of Federal funding) 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 goes beyond the scope of this analysis.

Furthermore, most of the fisheries in question are currently evolving, as a rationalization program is under development for the GOA groundfish fishery and various bycatch management cooperative proposals are under development for the BSAI groundfish fisheries under Amendment 80 to the FMP. 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 under 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, two "end-point" fee levels are proposed for Council consideration under each alternative in the RIR.** Note that these two endpoints are 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: Maintain the existing number of deployment days in Tier 3 and 4 fisheries (lower endpoint).*** 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  $\geq 60'$ . Under all of the alternatives, the average cost 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 base than under the status quo.

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.

***Option 2: Establish a fee percentage that is self-supporting at current coverage levels for Tier 3 fisheries and apply the same fee percentage to all new Tier 3 and 4 fisheries into which the program expands (upper endpoint).*** 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 (<60' vessels and halibut vessels) that is included under the new program would be required to pay the same fee percentage, and will thus generate additional fee revenues so that expansion of coverage into those fisheries 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' will be difficult to make 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.

In sum, all of the action alternatives would allow for a more flexible and rational 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  $\geq 60'$  groundfish vessels with current coverage.

The low and high-endpoint fee percentages under each alternative can be compared to the average cost of observer coverage under the status quo (see Table 4.4-1) to determine whether the average vessel in a particular class would be paying higher or lower average observer costs under each of the 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 funding. To the extent that the new program receives direct Federal funding to support the ongoing costs of observer coverage, the fee estimated fee percentages could be reduced or coverage levels increased.

Table 4.4-2 shows the estimated low and high endpoint fees that would be required under each alternative using coverage days and ex-vessel value data from 2000-2002. Table 4.4-2 also shows the estimated number of additional observer days that would be funded under the high-endpoint fee percentages for each alternative. Note that this table indicates the fees that would result from an ex-vessel based fee for all vessels and processors included in the program, as well as the fees that would result if Tier 1 and 2 fisheries were instead covered by a daily observer fee.

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. The alternative which would provide the program with the largest revenue base relative to observer days is Alternative 4, which would require an estimated ex-vessel value fee of 0.51% to fund the current level of coverage under the low-endpoint option and a fee of 0.88% under the high-endpoint fee option. An additional 3,300 observer days would be funded under the high-endpoint fee option for Alternative 4 and these observer days would be available to expand coverage in the groundfish and halibut fisheries that fall within the scope of Alternative 4.

The highest fee percentages would come under Alternative 6, especially if all three of the suboptions for Alternative 6 are chosen. If all three suboptions are chosen, the low endpoint fee would be 1.44% and the high-endpoint fee would be 1.85%. When evaluating Alternatives 6 and 7, which would include the H&G trawl sector that will be subject to groundfish retention standards and increased observer coverage in the future, it should be emphasized that the estimates in Table 4.4-2 are based on 2000-2002 observer coverage levels and do not include any increases in coverage expected as a result of these upcoming programs. Obviously, any mandated increases in coverage for the H&G trawl fleet will require higher ex-vessel value fee percentages for any alternatives in which this sector is included in the ex-vessel value fee program. Because this sector will have higher-than-average observer costs, the effect of including them in any ex-vessel value fee program is that coverage on these vessels will be subsidized by the remaining groundfish and halibut fleets through higher fee percentages. However, under Alternative 7 in which all vessels in Tier 1 and Tier 2 fisheries are subject to a daily observer fee, the full cost of coverage in the H&G trawl fleet would be born by that sector alone.

It is difficult or impossible to predict how many additional observer days would actually be needed as a result of the upcoming 200% coverage requirement on H&G trawlers operating in the BSAI under the GRS established by Amendment 79, because the Council is also developing new cooperative and rationalization program for this sector under Amendment 80. 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 trawl H&G 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 2000-2002 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, thus fee percentages would need to increase under Alternative 6 and Alternative 7, if the option was selected to make Tier 1 and 2 fisheries subject to an ex-vessel value fee instead of a daily observer fee.

**Table 4.4-2 Estimated high and low endpoint fees for each alternative and estimated number of additional observer days funded under high endpoint fee percentage using 2000-2002 estimates of observer days and ex-vessel value<sup>1</sup>**

2000-2002 average annual data	Alt 2	Alt 3	Alt 4	Alt 5	Alt 6 <sup>2</sup>			Alt 7			
					no options	Option 1	Option 2	Option 3	All options	Tier 3 and 4 only	All Tiers
Observer days	3,204	3,204	4,599	5,886	9,828	16,540	13,996	13,915	24,796	20,627	32,820
Obs. cost in \$ millions	1.14	1.14	1.63	2.09	3.49	5.87	4.97	4.94	8.80	7.32	11.65
<b><u>Estimated value of groundfish and halibut subject to the observer ex-vessel value fee in millions of dollars</u></b>											
Groundfish from ≥ 60' vessels	96.74	96.74	185.80	200.03	295.45	344.16	348.04	373.64	474.94	422.35	786.29
Groundfish from <60' vessels	11.42	11.42	11.42	12.70	12.70	12.70	12.70	12.70	12.70	12.70	12.70
Halibut	-	123.11	123.11	123.11	123.11	123.11	123.11	123.11	123.11	123.11	123.11
Total ex-vessel value	108.15	231.26	320.33	335.84	431.26	479.97	483.85	509.45	610.74	558.16	922.09
<b><u>Estimated high and low endpoint fee for each alternative</u></b>											
Estimated low endpoint fee %	1.05%	0.49%	0.51%	0.62%	0.81%	1.22%	1.03%	0.97%	1.44%	1.31%	1.26%
Estimated high endpoint fee %	1.18%	1.18%	0.88%	1.04%	1.18%	1.71%	1.43%	1.32%	1.85%	1.73%	1.48%
<b><u>Additional number of observer days that could be funded by the high endpoint fee percentage based on revenue from &lt;60' and halibut vessels</u></b>											
from <60' fee proceeds	378	378	283	374	422	610	511	473	663	620	530
from halibut fee proceeds	-	4,078	3,047	3,622	4,095	5,917	4,951	4,585	6,427	6,013	5,139
total additional days	378	4,456	3,330	3,996	4,517	6,527	5,461	5,058	7,090	6,633	5,669

Note: CDQ data is included in this table for each vessel class that made CDQ landings. Therefore, this table should be treated as if the option to include CDQ vessels under each alternative was selected.

<sup>1</sup>Low and high endpoint fee percentages are generated using average annual coverage days and ex-vessel value revenues for 2000-2002 and using an average coverage cost of \$355/day.

<sup>2</sup>Fee percentages for all options under Alternative 6 assume that all vessels covered by the program would be covered by an ex-vessel value fee, including Tier 1 and Tier 2 vessels covered by the program.

#### **4.4.4 Establishing a daily observer fee for Tier 1 and Tier 2 fisheries**

Under the proposed daily observer fee for Tier 1 and Tier 2 fisheries under Alternatives 6 and 7, 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 current coverage daily costs of \$355 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). 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 cost relative to the status quo as long as the daily costs of coverage do not increase. The difficulties in estimating future daily coverage costs are described in detail in section 4.4.2

#### **4.4.5 Summary of the economic effects of the alternatives on the affected groundfish and halibut fleets**

Under all of the alternatives, the only 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 4.4-2 represent the percentage of ex-vessel value that would be assessed under each alternative. Table 4.4-2 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 shown on Table 4.4-2 are based on the assumption that fee proceeds will 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 that would be subject to a daily observer fee, namely the Tier 1 and Tier 2 fisheries under Alternative 7, the 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; that the current CBA would be used as the prevailing wage under future SCA wage determinations, and that a new system of overtime pay will not be required. If either of these two assumptions proves incorrect, then costs will vary and could increase in ways that are not possible to predict at this time.

Under the no action alternative, 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  $\geq 60'$ ) 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 or its ability to pay for observer coverage. 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 2 through 7 address the problem of inequity by imposing a uniform fee for all vessels and processors in Tier 3 and 4 fisheries, and Alternatives 6 and 7 provide a suboption to impose a uniform fee on all vessels participating in the program. However, the direct costs vary to some extent between these alternatives because the composition of vessels participating in the program varies among alternatives.

## 4.5 Economic effects of options related to the fee collection program

This section will examine economic issues related to the choice of a fee type (ex-vessel value versus daily observer fee), the use of standardized or actual ex-vessel prices, and supplemental funding options. This section will examine TAC and price volatility on an annual and regional basis to determine how changes in total ex-vessel revenue will affect program stability and equity.

All of the alternatives in this analysis assume that a uniform ex-vessel 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 Alternatives 6 and 7. However, there also exists an option to Alternatives 6 and 7 that would apply a uniform ex-vessel value fee for all participants in the program.

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 open, or limited, access management system which relies on aggregate data to manage TACs rather than individual vessel-specific data. However, the passage and 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 bycatch cooperatives under consideration for BSAI CPs also could 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.

A major issue with the previous Research Plan was the requirement that processors collect and submit vessel fees, which represented an administrative burden to processors. With advances in electronic reporting, fee tracking and submission could be largely automated. Therefore, the administrative burden associated with fee collection and submission are likely to be less than 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 (or fishing permits) may be withheld for lack of payment.

*Annual post-season billing by NMFS (Alternatives 2 and 3)* Under Alternatives 2 and 3, which do not include processors in the program, NMFS would follow the IFQ cost-recovery program model under which NMFS would bill vessel owners directly on an annual basis. This approach would require that NMFS develop effective enforcement mechanisms to address the potential problem of non-payment. One way to do so

would be to withhold the renewal of fishing permits until observer fees from the previous year are paid. The costs of administering such a program would be covered largely by NMFS, using data already submitted by industry.

*Processor collection at the time of landing (Alternatives 4 through 7).* Under Alternatives 4 through 7, processors would be responsible for collecting fees from fishermen at the time of landing, and for submitting fee proceeds on a quarterly basis. Given recent advances in electronic recordkeeping and reporting, the collection of observer fees could be largely automated through modifications to existing software. Software automation should largely address the concerns expressed by industry about the paperwork burdens of fee collection during the development of the original Research Plan.

## **4.6 Additional costs not related to coverage**

### **4.6.1 Costs of implementing and administering a fee collection program**

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 to pay for any other type of program-related overhead. At present, NMFS has not made an 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.

### **4.6.2 Cost of an electronic logbook requirement under each of the alternatives**

Under all of the alternatives, some type of data collection system will 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 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 greater than 60 feet length overall 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 and has approved the use of the electronic logbook system as an alternative to hard copy logbooks. 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.

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. These advantages are listed in Section 2.5.1.

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 vendors. AFMA has procedures for testing the receipt of logbook data from different software vendors and certifies those software packages that meet its established standards. Fishermen are free to use any electronic logbook system that meets AFMA standards.

#### ***Estimated costs of an electronic fishing logbook***

The only company that currently provides electronic logbook software for use in North Pacific groundfish fisheries is OceanLogic, an Alaskan company that has created a variety of software packages. The current retail cost of OceanLogic's electronic fishing logbook for North Pacific groundfish fisheries is \$750. Because NMFS recordkeeping and reporting requirements change on an annual basis, the electronic fishing logbook must be updated annually. OceanLogic currently charges an annual update fee of \$128. While a widespread electronic fishing logbook requirement for North Pacific groundfish and halibut fisheries could bring additional companies into the market and end up reducing costs through competition, it is impossible to predict the extent to which that might happen. Therefore, the current retail cost of OceanLogic's electronic fishing logbook is used as the basis for estimating the costs of requiring electronic fishing logbooks in all fisheries covered by the program.

#### ***Implementation issues related to electronic fishing logbooks***

It should also be emphasized that immediate implementation of an electronic fishing logbook requirement for all fisheries may not be possible or desirable due to a lack of equipment and computer literacy onboard many groundfish and halibut vessels, especially smaller vessels. The equipment requirements are a desktop or laptop computer running Windows software and a GPS device with an available output port that can be connected to the computer. While most vessels operating in the North Pacific undoubtedly have some sort of GPS device onboard, not all have Windows-based computers. In addition, a lack of computer literacy on the part of many vessel operators could delay or prevent the immediate and widespread application of electronic fishing logbooks in North Pacific fisheries. Therefore, it may be more appropriate to consider some sort of voluntary electronic fishing logbook program during the initial years of the program, perhaps one in which fishermen are provided with financial incentives to voluntarily adopt electronic fishing logbooks as an alternative to the current paper fishing logs. Financial incentives could include a Federal subsidy to cover some or all of the initial and ongoing software and hardware costs, and/or the use of observer fee proceeds to subsidize the costs.

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, under all of the alternatives, NMFS would create incentives for vessels to move towards 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.

## **4.7 Effects of the program on observers providers and observers**

### **4.7.1 Effects on observer providers**

Many of the issues related to the design and implementation of Federal contracts for observer services have yet to be resolved by NMFS. These include the number and type of contracts, contract duration, and the scope of work covered under each contract. Under a new system of Federal contracting, NMFS could chose to continue to contract for observer coverage in much the same manner that industry does today with the observer provider companies being responsible for little more than providing observers when and where requested. Alternatively, under the action alternatives, NMFS could chose to contract out some of the observer support and data review and editing tasks that are currently being handled in-house by the Observer Program. Until these types of issues are resolved and the most likely type of contracts are identified, it is difficult to evaluate how observer providers would be affected by the alternatives. Nevertheless, several preliminary conclusions can be made.

First, none of the alternatives contemplate a reduction in the total number of observer days that would be contracted for in the North Pacific. The low fee endpoints are designed to maintain the current number of observer days and the high fee endpoints would involve an increase in the total number of observer days. Therefore, under all of the alternatives, the total amount of business available to observer providers is not expected to decrease

Second, the current number of observer providers could be maintained if the Council and NMFS choose to adopt policies with that objective in mind. This is because the groundfish and halibut fisheries off Alaska can be subdivided into a number of discrete fisheries by vessel type and area, and contracts for observer services could be broken up in a similar fashion. In addition, NMFS could accommodate subcontracting so an observer provider receiving a contract could subcontract with other providers to meet certain coverage needs. On the other hand, NMFS and the Council could choose to adopt policies that would result in as few as one observer provider remaining in operation in the North Pacific. Logically, NMFS would want a number of observer providers to remain in operation to generate competitive bids when contracts are proposed. However, absent a clear policy direction from the Council or NMFS, it is not possible to speculate on the number of observer providers that would remain in business under each of the alternatives.

### **4.7.2 Effects on observers**

A majority of observers currently working in the North Pacific are members of the Alaska Fishermen's Union, and are working under collective bargaining agreements (CBA) that have been signed with three of the four observer providers that are currently operating in the North Pacific. None of the alternatives would affect any CBA that is currently in place or that will be in place at the time the preferred alternative is implemented. 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 DOL 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). Therefore, under any of the action alternatives, observers working under a service delivery contract entered into by NMFS would be entitled to wages that equal the CBA in effect, regardless of whether or not they themselves are members of the union and covered by the CBA. It is difficult, however, to predict how observer salaries would change, if at all, under any of the alternatives. As discussed above, the issue of overtime pay has yet to be resolved for North Pacific observers, and it is difficult to predict how changes in the contracting process might affect the results of bargaining for a new CBA.

## **4.8 Federal funding for start-up costs and ongoing program implementation**

The likelihood of obtaining Federal funding to cover all or part of the ongoing costs of a restructured observer program is uncertain. However, Federal startup funds will 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 startup 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.

If startup 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 CPs retired under Section 209 of the AFA. Startup 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 funding 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 to 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 the North Pacific is the only region in which vessel owners are responsible for paying for the entire cost of required observer coverage (with the exception of several fisheries where vessel operators are allowed to fish in closed areas only if they pay for the costs of observer coverage). In all other regions, observer programs are fully funded with Federal dollars. Therefore, some level of Federal funding for a restructured observer program seems reasonable.

## **4.9 Contracting process**

NMFS is serviced for its contracting needs by staff in NOAA's Western Administrative Support Center (WASC) located in Seattle. While WASC 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.

### **4.9.1 Additional tasks that lend themselves to contracting**

Under the current program, the tasks necessary to operate the Observer Program are divided among NMFS, observer providers, and industry. NMFS trains, debriefs, and manages the information collected by observers. The observer providers recruit, hire, deploy, insure, and pay salaries for observers. They also compete with each other for industry business. Industry contracts directly with observer providers to obtain coverage, accommodates observers on their vessels and in their plants, and provides room and board. Industry select an observer provider to provide the observer and coordinate their scheduling needs, as industry is responsible for meeting the coverage levels specified in regulation.

Under a direct contracting system, there is an opportunity to shift some of these responsibilities to the observer provider. NMFS intends to continue to train, debrief, and manage the information provided by observers, as these are essential quality control steps. 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 of tracking vessels so coverage decisions could be made by NMFS. Contractors could also take on a larger role in the compiling and quality control of observer data.

#### **4.9.2 Hypothetical contract modules**

Several different contract modules are possible, but it is difficult to develop them 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. For example, 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.

#### **4.9.3 Discussion of contract benefits**

Managing an observer system through contracts between NMFS and the observer providers offers some advantages and disadvantages to the existing system, whereby vessels contract directly with observer providers to obtain a level of coverage as dictated by regulation. We recognize different stakeholders may have various perspectives on these issues. NMFS's perspective on the advantages and disadvantages of using a direct contract system is provided in the following two sections.

#### **4.9.4 Contract Advantages**

- Professional contract management assistance and support from WASC.
- Contracting would replace most of the cumbersome regulatory processes used to manage under the status quo. In previous OAC meetings, NMFS staff explained the difficulties inherent in using regulations as the control mechanism for managing an operational program like the Observer Program.
- Contractors would be held accountable for their performance through the contract rather than through regulatory enforcement. NMFS resources dedicated to current regulatory development and compliance efforts would be available for other tasks.
- Contractors would have better ability to manage and predict workloads during the performance period of the contract.
- The work required of the contractor could be changed, if needed, through contract modifications rather than through regulatory fixes. Contract modifications can be done more quickly, albeit at a cost.
- Eliminates the regulatory burden on industry to acquire its own observers. Vessels and processors would only be required to carry observers when one is provided by NMFS.
- Clarifies the chain of authority and lines of reporting for observers, contractors, industry, and NMFS.
- If well managed, contracts will help build good working relationships among constituents.

- The process for distributing coverage could be sufficiently flexible to meet the agency's data needs for conservation and management of the North Pacific groundfish fisheries.

#### **4.9.5 Contract Disadvantages**

- The management program for a given fishery could be placed at greater risk if a contractor fails and that contractor is the sole source of observers for that fishery. That risk can be mitigated by giving multiple awards which distribute the workload.
- It may be cost effective to limit the number of contractors awarded part of the contract. Even with multiple awards, some contractors may not be awarded part of it.
- If a sub-set of the overall program is selected for contracting, NMFS will need to sort out how observers, contractors and vessels would shift between the new system and the current system. The contractor for the sub-set may wish to provide coverage to the vessels under the current system.
- NMFS and WASC would have to staff the contract development and management process.
- Some additional requirements of industry may be needed, such as providing advance notices of fishing schedules.
- A funding source must be developed to initiate a contract for Year-1 of the new program's operation, prior to the collection of the fee.

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