

Draft for Council Review

Environmental Assessment, Regulatory Impact Review
for a Fishery Management Plan Amendment
to Establish a New Program for Observer Procurement and Deployment in the North Pacific

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TABLE OF CONTENTS

1.0	INTRODUCTION	<u>1</u>
1.1	Background on the Domestic Observer Program	<u>1</u>
1.1.1	Previous attempts to restructure the program: The Research Plan and Joint Partnership Agreement	<u>3</u>
1.1.2	Extensions of the Interim Program since 1998	<u>4</u>
1.2	Purpose and need for action	<u>5</u>
1.3	Description of the alternatives	<u>6</u>
1.3.1	Summary of the alternatives	<u>6</u>
1.3.2	Required program elements for all the alternatives	<u>7</u>
1.3.3	Detailed summary of the alternatives	<u>19</u>
1.3.4	Alternatives rejected from further analysis	<u>21</u>
1.4	Related NEPA and fishery description documents	<u>21</u>
1.5	Coordination of program restructuring with GOA Rationalization	<u>22</u>
1.6	Applicable laws and statutory changes required to implement the alternatives	<u>22</u>
2.0	ENVIRONMENTAL ASSESSMENT	<u>23</u>
2.1	Affected environment and management of the fisheries	<u>23</u>
2.2	Environmental impacts of the alternatives	<u>24</u>
2.2.1	Effects of expiration of the program under the no-action alternative	<u>26</u>
2.2.2	Effects on fish species	<u>27</u>
2.2.3	Effects on prohibited species	<u>29</u>
2.2.4	Effects on marine mammals	<u>32</u>
2.2.5	Effects on seabirds	<u>35</u>
2.2.6	Effects on endangered or threatened species	<u>37</u>
2.2.7	Ecosystem considerations	<u>40</u>
2.2.8	Habitat impacts	<u>40</u>
2.3	Context and intensity as required by NEPA	<u>41</u>
2.4	Cumulative effects	<u>43</u>
3.0	REGULATORY IMPACT REVIEW: ECONOMIC EFFECTS OF THE ALTERNATIVES	<u>44</u>
3.1	Introduction	<u>44</u>
3.2	What is a regulatory impact review?	<u>44</u>
3.3	Statutory authority	<u>45</u>
3.4	Purpose and need for action	<u>45</u>
3.5	Description of the alternatives	<u>46</u>
3.6	Description of the fishery	<u>47</u>
3.6.1	Catcher processors	<u>48</u>
3.6.2	Motherships	<u>49</u>
3.6.3	Groundfish catcher vessels	<u>50</u>
3.6.4	Shoreside processors	<u>52</u>
3.6.5	Observer provider companies	<u>53</u>
3.7	Program scope: Economic effects of the alternatives on vessels and processors	<u>54</u>
3.7.1	Estimated costs of observer coverage under Alternative 1	<u>54</u>
3.7.2	Estimated costs of observer coverage under Alternatives 2 through 5	<u>55</u>
3.8	Effects of decisions related to the fee basis (actual or standard prices)	<u>57</u>
3.8.1	Supplemental fees for special programs	<u>58</u>

3.8.2	Fee collection mechanism	58
3.9	Federal funding for start-up costs and ongoing program implementation	59
3.10	Contracting process.	59
3.11	Observer salary issues	63
3.12	Coverage levels	64
3.13	Integration of technology into monitoring and use of fee proceeds	64
3.14	Issues associated with crossovers between the GOA and BSAI programs	65
3.15	Enforcement issues	65
3.16	Other implementation issues	65
4.0	REFERENCES	66
6.0	LIST OF PREPARERS	66

1.0 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) and the Pacific halibut fishery off Alaska is managed under 50 CFR 300.60 to .65 (Subpart E). The mission of NMFS is the stewardship of living marine resources for the benefit of the nation through their science-based conservation and management. The NMFS strategic plan for accomplishing that mission contains the following three goals: (1) Rebuild and maintain sustainable fisheries; (2) Promote the recovery of protected species; and (3) Protect and maintain the health of coastal marine habitats.

The groundfish fisheries are managed under the Fishery Management Plan (FMP) for Groundfish of the Gulf of Alaska (GOA) and the Fishery Management Plan for the Groundfish Fisheries of the Bering Sea Aleutian Islands area (BSAI) developed by the North Pacific Fishery Management Council (Council) under the MSA. These FMPs were approved by the Secretary of Commerce and became effective in 1978 and 1982, respectively. The FMPs for the BSAI and GOA have each been amended more than 50 times.

Regulatory actions taken to achieve the three NMFS goals must meet the requirements of the MSA, the National Environmental Policy Act (NEPA), the Endangered Species Act (ESA), the Marine Mammal Protection Act (MMPA), Executive Order (E.O.) 12866, the Regulatory Flexibility Act (RFA), and other applicable laws.

This draft Environmental Assessment/Regulatory Impact Review/Initial Regulatory Flexibility Analysis (EA/RIR/IRFA) examines five alternatives for restructuring the North Pacific Groundfish Observer Program (Observer Program) to establish a new system for observer procurement and deployment in certain North Pacific fisheries. 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 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, vessels 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. The five alternatives are distinguished primarily by which fisheries would be included in the new program, and are organized in ascending order from the smallest to the largest in terms of scope. The five alternatives are: (1) No action; (2) New program for GOA groundfish vessels; (3) New program for GOA groundfish and all (BSAI and GOA) halibut vessels; (4) New program for GOA groundfish vessels, all halibut vessels and GOA groundfish processors; and (5) New program for GOA groundfish vessels, all halibut vessels, BSAI groundfish vessels that currently have less than 100% coverage, and GOA-based groundfish processors.

1.1 Background on the Domestic Observer Program

Data provided by the Observer Program is a critical element in the conservation and management of groundfish, other living marine resources, and their habitat. For example, these data are used for: (1) assessing the status of groundfish stocks; (2) setting and monitoring groundfish quotas; (3) monitoring the bycatch of non-groundfish species; (4) assessing the effects of the groundfish fishery on other living marine resources and their habitat; and (5) assessing methods for improving the conservation and management of groundfish, other living marine resources, and their habitat.

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.

In 1978 American fishers 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 was reduced to 30%. Since 1990, the number of observer deployment days per year ranged from about 20,000 to almost 36,400. In 2002, 340 individual observers served on board 312 vessels and 20 processing facilities.

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.

1.1.1 Previous attempts to restructure the program: The 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 (the 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 contracting industry. 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 that 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 specified 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 would 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.

During 1997, observers organized to bargain for better compensation and working conditions. Currently, the Alaska Fishermen's Union (AFU) has contracts with most of the observer providers.

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 joint partnership agreement (JPA) that would authorize PSMFC to provide observer procurement services. The Council also requested NMFS to work with the Council's Observer Advisory Committee 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. An exposure to the risk of a lawsuit through their role as a third party to observer procurement arrangements was determined by PSMFC to be 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.

1.1.2 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; and 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 aboard groundfish and halibut vessels and at groundfish plants.

1.2 Purpose and need for action

During the development of the 2002 extension of 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 and inequities inherent in the current “pay-as-you-go” approach. 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 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:

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.

In attempting once again to tackle the issue of Observer Program restructuring, NMFS, Council staff and the OAC all agreed that one of the primary reasons that previous efforts had failed was that it was perhaps too ambitious to attempt the total restructuring of the entire Observer Program for all groundfish fisheries off Alaska. This is especially true because large portions of Bering Sea groundfish industry are relatively satisfied with the operation of the current “pay-as-you-go” program and operate in fisheries such as the AFA pollock fishery where coverage levels are already mandated by statute. Therefore, NMFS and Council staff and the OAC all agreed that it is more prudent 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. Once a restructured program has been successfully implemented for limited fisheries, the Council could then decide whether or not to proceed with expanding the program to include fisheries that were not initially included. It is for this reason that the alternatives contained within this analysis focus on the groundfish and halibut fisheries of the GOA with options to include BSAI groundfish vessels that currently have less than 100% coverage requirements.

1.3 Description of the alternatives

The alternatives and program elements analyzed in this document are described in this section. 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. Four alternative approaches for restructuring the Observer Program are analyzed in addition to the no-action alternative. The four action alternatives are distinguished primarily by which fisheries would be included in the program restructuring, and are organized in ascending order from the smallest to the largest in terms of scope. Each alternative represents a comprehensive program constructed from a specific set of program elements. This section also contains an extensive discussion of program elements that are common to all four of the action alternatives.

One underlying principle guides the construction of all of the alternatives--scalability. The restructured program should 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 GOA groundfish fisheries was to make it sufficiently flexible to accommodate future management programs, as well as expansion into other fisheries not considered under this action. Thus, the proposed program should be flexible enough to include BSAI groundfish fisheries at some point in the future. Likewise, the restructured program should be flexible enough to accommodate potential new management programs, such as GOA rationalization, without major modifications. It makes little sense to design a program for the current management regime that could not easily be adapted for future rationalization programs.

1.3.1 Summary of the alternatives

The four action alternatives are distinguished primarily in terms of scope (i.e. which vessels and processors would be included in the program) and by some of the details of the fee collection program.

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.

Alternative 2. *GOA groundfish vessels only.* Under this alternative, a new fee-based Observer 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 observer coverage 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 alternative is the same as Alternative 2 except that halibut vessels from all areas off Alaska would be included in the program. 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 is the same as Alternative 3 except that GOA-based groundfish processors would be included in the program. 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, and BSAI groundfish vessels with less than 100% coverage requirements.* This alternative is the same as Alternative 4 except that BSAI groundfish vessels that currently have less than 100% coverage requirements would be included. This includes all groundfish trawl and fixed gear vessels under 125' LOA, all pot vessels of any length, and all halibut vessels. BSAI-based groundfish processors that take deliveries from vessels participating in the program would have the option to participate in the program.

1.3.2 Required program elements for all the alternatives

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 below:

Program scope (which vessels and processors will be included)

The range of vessels and processors under consideration for inclusion in the new program starts with GOA groundfish vessels with options to include halibut vessels, GOA-based processors, and BSAI vessels that currently have less than 100% observer coverage requirements. The options with respect to scope form the basis for the four action alternatives:

- GOA groundfish vessels only, including <60' vessels (*Alternative 2*)
- Include halibut vessels from all areas (*Alternative 3*)
- Include GOA-based shoreside processors (*Alternative 4*)
- Include BSAI groundfish vessels that currently have less than 100% observer coverage requirements under the status quo, and provide an opt-in/opt-out provision for BSAI processors that receive landings from vessels covered by the program (*Alternative 5*)

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 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 solves the problem of disproportionate costs for smaller vessels and makes their inclusion into the restructured Observer Program feasible.

Alternative 5 contains 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. catcher vessels $\geq 125'$). 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.

Other combinations of participants are obviously possible. The four action alternatives were chosen because they represent the most logical stepwise expansion of the program from one that includes only GOA groundfish vessels to one that includes all groundfish and halibut vessels except for the 100% and 200% coverage vessels and processors in the BSAI.

Funding mechanism: User fee based on the ex-vessel value of landed catch

First it should be noted that all of the alternatives contained within this analysis anticipate that some combination of user fees and direct federal funding will 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 intent to obtain the same type of direct federal funding that supports other observer programs throughout the nation.

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 is imposed a fee without receiving the benefit of coverage under the program. The intent of this objective is twofold: First, to prevent "free riders" who obtain 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.

3. *User fees should not be directly linked to actual coverage levels.* 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 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. 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 likely 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.
4. *User fees should be easy to collect without undue burden on industry.* Vessels and processors are already faced with considerable paperwork and reporting burdens. A new user fee should be designed to work within the current recordkeeping and reporting system to the extent possible without imposing unnecessary new paperwork burdens on industry.

Fee based on percentage of the ex-vessel value of landed catch. While a wide variety of fee types are theoretically possible and could be used to raise funds to support observer coverage, the type of fee that best meets the principles outlined above is a fee based on the exvessel of landed catch. For this reason, all four of the alternatives use a fee based on the exvessel value of landed catch. This is the most commonly-used type of fee in the North Pacific. Both the original Research Plan and the halibut/sablefish IFQ cost-recovery program used fees based on the ex-vessel value of landed catch. 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.

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. 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.

Fee based on fishing days. Since a vessel's coverage level is directly associated with its number of fishing days, a fee program could be based on each vessel's number of fishing days and desired coverage level. For example, if the target level of coverage for a fishery is 33%, and the average cost of observer coverage is \$360/day, then each vessel could be assessed a fee of \$120/fishing day. The advantage to such an approach is that the fees collected will most closely match coverage costs. The disadvantage to such an approach is that it does not address the problem of cost-equity that plagues the current pay-as-you-go program. 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. In addition, such a fee would disproportionately affect smaller vessels and lower-volume fixed gear vessels relative to high-volume trawl vessels. To address the problem of disproportionate impacts, the Council would need to establish a complicated system of daily fishing fees based on such factors as vessel size, gear type, and target fishery. As with the fixed tonnage fee described above, setting variable daily fishing fees could result in a long, complicated, and political process that can be avoided by using a uniform fee based on ex-vessel value. In addition, if a daily fishing 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.

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 far 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.

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 induce 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. For that 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 successfully addressed the 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 2000, 83 percent of IFQ permit holders chose to pay the fee amount that NMFS calculated they owed based on standard ex-vessel prices while 17 percent of IFQ permit holders chose to pay based on the actual ex-vessel value of at least some of their landings. 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 and 5, 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. Catcher processor 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 catcher vessel 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 catcher processors, which do not have no price transaction for raw fish.

Actual prices (Alternatives 4 and 5). Under Alternatives 4 and 5, actual prices would be used for catcher vessel deliveries to shoreside processors, and standardized prices would be used for catcher. Actual prices were chosen for catcher vessel deliveries under Alternatives 4 and 5 to provide the opportunity to compare and contrast these two different approaches. However, the use of actual prices for Alternatives 4 and 5 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 simply be to shift costs to those vessels owners and processors who are not engaged in deceptive pricing strategies.

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 burdens associated with collecting and submitting fees. With advances in electronic reporting, fee tracking and submission could be largely automated. Therefore, the administrative burdens 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 and 5). Under Alternatives 4 and 5, 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.

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.

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 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 catcher processors, 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 bycatch quotas at the individual vessel or co-op level. These programs would likely require substantial increases in observer coverage to generate adequate catch and bycatch data at the individual vessel or individual co-op level.

Supplemental fee revenues could be generated by increasing the exvessel 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 exvessel value fee for IFQ holders because the MSA specifies that IFQ cost-recovery fees be expressed as a percentage of exvessel value.

A supplemental fee program is not included as a component in any of the alternatives in this analysis because no rationalization programs requiring an increase in observer coverage have been approved in any of the fisheries proposed to be covered by the alternatives. Nevertheless, the Council may wish to maintain the option to establish supplemental fee programs in the future, should they be needed to address additional management needs. This may be as simple as ensuring that the FMP text, regulations, and any statutory language authorizing the program are sufficiently flexible to support the later adoption of a supplemental fee

program. While the Council and NMFS have the ability to modify FMP amendments and regulations, once a statutory change is enacted, it is much more difficult to modify. Therefore, it is crucial that any statutory language establishing a new Observer Program be sufficiently flexible to accommodate future management needs.

Initial fee percentage

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. The process by which NMFS would determine annual coverage levels is the subject of a separate, ongoing analysis being prepared under contract. This analysis will be made available to the Council as soon as it is completed.

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. Especially given that the alternatives for such programs are still under development. For this reason, this analysis only considers what fee percentages would be 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 obviously be reduced. Therefore, two "end-point" fee levels are proposed for Council consideration:

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 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 the 30% or greater level 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.

Preliminary estimates for lower and upper endpoint fee percentages are set out for Alternatives 2 through 4 in table 1.3-1 below. The estimated lower and upper endpoint fee percentages for Alternative 5 are not yet available because coverage days and ex-vessel value revenues have not yet been broken out for BSAI trawl and longline catcher/processors in the 60-124' length category.

Table 1.3.1 Estimated low and high endpoint fee percentages for Alternatives 2 through 5 based on coverage days and exvessel value data from 2000-2002, and assuming no direct federal funding (Preliminary estimate).

	<i>Alternative 2</i>	<i>Alternative 3</i>	<i>Alternative 4</i>	<i>Alternative 5</i>
Low endpoint	0.92%	0.43%	0.46%	(data not yet available)
High endpoint	1.53%	1.53%	0.97%	

Note: Low and high endpoint fee percentages are generated using average annual coverage days and exvessel value revenues for 2000-2002 and using an average coverage cost of \$350/day. This includes \$320/day average rate for Level 1 and Level 2 observers; an estimate of \$30/day for travel expenses passed on to industry by observer providers; but does not include the estimated \$15/day for meals that vessel operators provide directly.

Ultimately, the Council and NMFS may determine that existing coverage levels should not be compromised as the program expands into new fisheries, but that coverage ratios in the under 60' and halibut fleets do not necessarily need to be as high as the level that would be provided if the Council chose the high endpoint fee percentage. The Council and NMFS could, therefore, establish a fee percentage that falls somewhere between the two end points so that existing coverage levels could be maintained for the over 60' fleet with surplus revenues funding the initial expansion of coverage into the halibut and under 60' fleet at lower levels. The choice of an initial fee percentage depends on desired coverage levels and the level of direct federal funding. In subsequent years as new rationalization programs are developed, new needs for observer data emerge, and as coverage costs and ex-vessel prices change, the Council and NMFS will need to consider fee adjustments..

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 Procedures Act. Especially if the framework mechanism provides 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 long 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 fee 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 likely 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.

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 detail in section 3.7.1 to provide Council 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 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 for consideration.

Coverage levels

Under all of the action alternatives, some process would be established through which NMFS would establish coverage levels for individual fisheries based on management priorities and the overall funding level. Perhaps a process similar to the existing plan team process could be established to provide NMFS with recommendations for coverage levels in different fisheries. NMFS intends to develop a preseason decision-making process that would establish target coverage levels for individual fisheries. A separate analysis of how this process could be designed and implemented is currently being prepared under contract, and when complete, will be provided to the Council. Therefore, this preliminary analysis does not propose alternative approaches for establishing coverage levels on a fishery-by-fishery basis.

Inseason deployment issues.

This analysis also 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 the most optimal manner.

Start-up funding

Start-up funding is crucial to the successful implementation of a restructured observer program. Without start-up funding, it would likely take a year or more of fishing until sufficient fees are collected through the program to make it self-supporting. Consequently, some type of start-up funding is necessary so that funds are available for observer contracting during the first year of the program. 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 catcher processors 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.

It should be noted that both a 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 vast majority of other observer programs throughout the country that receive full federal funding. However, it is beyond the scope of this preliminary analysis to speculate as to the likelihood and level of any future federal funding.

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 is currently being prepared under contract. The Council may wish to consider the results of that analysis to determine how the use of fee proceeds should be restricted.

Requirements for vessels and processors covered by the program

Existing regulations specify the mandatory minimum level of observer coverage required by vessel size, gear type, and fishery. The existing regulations specify minimum coverage levels of zero %, 30%, 100% or 200% depending on the vessel type and fishery. Each vessel owner or operator is individually responsible for obtaining the mandatory minimum coverage levels by contracting directly with an observer provider. Vessel owners and/or operators that fail to meet mandatory minimum coverage levels are subject to enforcement action.

Under Alternatives 2 through 5, these mandatory minimum coverage levels would be eliminated for all vessels participating in the program. Vessel owners and operators would no longer be required to obtain their

own observer coverage. Instead, NMFS would contract directly with observer providers to obtain coverage using fee proceeds and/or federal funds. Vessel operators would be required to take an observer anytime NMFS requests that they do so, but would not be responsible for carrying an observer when NMFS does not request or make one available. However, a vessel owner and/or operator could be subject to enforcement action if NMFS requests that the vessel carry an observer and the operator refuses to carry the observer that is provided.

In order for the new program to function smoothly, NMFS managers will need advance notice of each vessel's intended fishing activity. This will likely require some form of mandatory advance registration or check-in/check-out requirement for each fishery so that fishery managers know when and where vessels intend to fish. This type of vessel tracking could be accomplished by NMFS through some form of electronic fishing logbook, or could possibly be done by observer providers or other federal contractors. Private consulting firms already have considerable experience tracking the activity of the catcher/processor fleet in the Bering Sea. Additional analysis is necessary to determine whether the tracking of vessel activity should be a NMFS function, or whether it would lend itself to some form of outside contract.

1.3.3 Detailed summary of the alternatives

The various program elements and options described above could be combined into thousands of possible combinations and this analysis is unable to explore every possible combination of program elements. Therefore, four 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 a 6th and preferred alternative prior to final action. The following table 1.3-2 provides a detailed summary and comparison of the five alternatives.

Table 1.3-2 Comparison of the five alternatives.

	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5
Program Scope					
<u>GOA</u>					
groundfish vessels < 60'	no	yes	yes	yes	yes
groundfish vessels ≥ 60'	yes	yes	yes	yes	yes
halibut vessels	no	no	yes	yes	yes
GOA-based groundfish processors	yes	no	no	yes	yes
<u>BSAI</u>					
groundfish vessels with less than 100% coverage requirements	yes	no	no	no	yes
halibut vessels	no	no	yes	yes	yes

	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5
BSAI-based groundfish processors that take GOA groundfish deliveries	yes	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
BSAI-based processors that take deliveries of BSAI groundfish from vessels covered by the program	yes	no	no	no	Processor may opt-in or opt-out but must pay fee on program-covered landings regardless
Coverage levels	0%, 30% and 100% coverage levels established in regulation	To 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 simply be required to carry an observer when one is provided by NMFS.			
Type of fee	Vessel contracts directly for coverage	Percentage of ex-vessel value of landed catch			
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. Catcher vessel 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. Catcher processors would pay based on standardized prices using round-weight equivalents.		
Fee percentage	N/A	Uniform "baseline" fee for all participants established in regulation			
Fee adjustments	N/A	Through notice and comment rulemaking if framework adjustments are not viable			
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 program-wide coverage.			
Initial coverage levels	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.			
Start-up funding	none	Federal appropriations (grant or loan)			
Direct federal funding	none	Federal appropriations to supplement fee revenues			
Inseason deployment	Determined by vessel and observer provider	Determined by NMFS based on inseason coverage priorities. Subject of separate analysis			
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, ongoing analysis.			

1.3.4 Alternatives rejected from further analysis

Observers as federal employees. While NMFS does maintain a small cadre of observers who are federal employees, an alternative to eliminate the role of observer providers and convert all observers to Federal employees is not further 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 Observer Advisory Committee (OAC) meetings, and was determined not to be a viable alternative to the use of observer providers.

Immediate restructuring for entire BSAI and groundfish fishery (former Research Plan). A complete restructuring of the entire groundfish observer program is not considered in this analysis. That option was previously analyzed and implemented under the former Research Plan, only to be subsequently repealed for the reasons described in Section 1.1.1.

Joint Partnership Agreement (JPA). NMFS and the Council have already attempted to develop a third party JPA and have failed due to unresolvable legal obstacles as described above in Section 1.1.1.

1.4 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 groundfish Observer Program in specific. This analysis relies on much of the work contained within these previous documents.

Groundfish Programmatic EIS. A programmatic SEIS is being prepared to evaluate the fishery management policies embedded in the BSAI and GOA groundfish FMPs against policy level alternatives. A draft programmatic SEIS 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 2003a).

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 American Fisheries Act (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 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.

1.5 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 catcher processors, 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 spell out 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. The experience of the halibut/sablefish IFQ and CDQ programs suggest that landings of IFQ species may be effectively monitored at the point of delivery using enforcement officers and/or observers. However, the monitoring PSC bycatch by individual vessels or cooperatives is a much more difficult task that is likely to require increased observer coverage.

As the Council's GOA rationalization alternatives develop, they should be closely integrated into the alternatives for Observer Program restructuring to ensure that the Council and NMFS do not develop a new Observer Program for GOA groundfish that cannot accommodate the changes anticipated under GOA rationalization.

1.6 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.

2.0 ENVIRONMENTAL ASSESSMENT

An environmental assessment (EA) as described by the National Environmental Policy Act (NEPA) of 1969 is used to determine whether the 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.

2.1 Affected environment and management of the fisheries

Chapter 3 of the Alaska Groundfish Fisheries draft Programmatic SEIS (NMFS 2003a) provides a detailed description of the affected environment including extensive information on the fishery management areas, marine resources, ecosystem, and economic parameters. The 2003 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 timely, reliable 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 United States Coast Guard, and the United States 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 Observer Program management programs.

2.2 Environmental impacts of the alternatives

The effects of groundfish fishing on the ecosystem, social, and economic environment are contained in the draft programmatic SEIS 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 Bering Sea and Aleutian Islands contained in the EA for the 2003 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 Islands; Bering Sea; Western, Central, and Eastern Gulf of Alaska) 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 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 Section 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 drafted by the OAC in January 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 issue comparisons across alternatives to restructure the Observer Program. As a starting point, each alternative under consideration is perceived as having the potential to significantly affect one or more components of the human environment. 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; (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 prohibited species catch, 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 total allowable catch specifications and prohibited species catch 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

Environmental Assessment prepared annually, pursuant to the National Environmental Policy Act, on the Total Allowable Catch Specifications and Prohibited Species Catch 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 analyzed will be promulgated within harvest limits set annually by the Total Allowable Catch 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, 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. The following ratings for significance are used: significant (beneficial or adverse), insignificant, or unknown. 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” (or 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.

2.2.1 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 is possible and, therefore, warrants discussion. Alternative 2 of the draft PSEIS (NMFS 2003a) analyzes the effects of the elimination of the Observer Program. The repeal of the Observer Program would apply to all groundfish fisheries with the exception of the American Fisheries Act (AFA) and Community Development Quota (CDQ) pollock fisheries, thus representing an 80 percent cut 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 repeal are discussed in the draft PSEIS relative to target species, the food web, bycatch, and allocation issues.

Under Alternative 2 of the draft 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.

2.2.2 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 five 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 2003 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 (Federal Register Vol. 63, No. 84, 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 2.2-1 Criteria used to estimate significance of direct effects on targeted groundfish stocks in the BSAI and GOA by Alternatives 1 - 5.

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 2.2-2 Summary of Impacts of Alternatives 1-5 on targeted groundfish stocks.

Summary of Impacts:	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5
Direct Effects					
Fishing Mortality	I	I	I	I	I
Changes in genetic structure of population	I	I	I	I	I
Changes in reproductive success	I	I	I	I	I
Indirect Effects					
Change in prey availability	I	I	I	I	I
Change in suitability of spawning, nursery, or settlement habitat	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 2-5 on fish stocks. Alternatives 2-5 propose restructuring of the funding and observer deployment mechanism, and extending monitoring and coverage requirements to various levels. These include GOA 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 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 minimum stock size threshold; (3) they would not alter harvest levels such that it jeopardizes the ability of the stock to sustain itself at or above the minimum stock size threshold; (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.

2.2.3 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 prohibited species catch (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 International Pacific Halibut Commission (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. Minimum stock size thresholds (MSST) 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 is 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 2001 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 2.2-3 Criteria used to estimate significance of effect of PSC on prohibited species in the Bering Sea, Aleutian Islands, and Gulf of Alaska by Alternatives 1 - 5.

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 2.2-4 Summary of Impacts of Alternatives 1-5 on prohibited species.

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

Summary of the effects of Alternative 1 on prohibited species. Monitoring levels under Alternative 1 (no action) are considered to be 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 2-5 on prohibited species. Alternatives 2-5 propose restructuring and extending monitoring and coverage requirements to various levels. These include GOA vessels under 60 feet, halibut vessels, and additional GOA based shoreside processors. In general, harvest information collected by observers, together with information from other sources, is used by NMFS' in-season management 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 the changes to the Observer Program 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.

2.2.4 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 Gulf of Alaska 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 (FMP BiOp, 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 with the 2003 final harvest specifications 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 the various proposed 2003 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 impact 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 Endangered Species Act 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 status. Northern sea otters were designated by the U.S. Fish and Wildlife Service (USFWS) as candidate species under the ESA on August 22, 2000, in the Aleutian Islands (from Unimak Pass to Attu Island) (65 FR 67343). However, the northern sea otter has not yet been listed under the ESA. On August 21, 2001, the USFWS was petitioned under the Marine Mammal Protection Act (MMPA) for the Alaska stock of sea otters to be listed as depleted. On November 2, 2001 (66 FR 55693), the USFWS determined that the current population of sea otters throughout Alaska exceeds the optimum sustainable population of 60,000 animals and, therefore, does not meet the criteria to be listed as depleted under the MMPA. The USFWS is continuing to evaluate the sea otter under both the ESA and MMPA. NMFS observers monitored incidental take in the 1990–1995 groundfish trawl, longline, and pot fisheries. No mortality or serious injuries to sea otters were observed. The proposed alternatives do not have significant impacts on the northern sea otter.

Table 2.2-5 Criteria used to estimate significance of effect on marine mammals in the Bering Sea, Aleutian Islands, and Gulf of Alaska by Alternatives 1 - 5.

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

Table 2.2-6 Summary of impacts of alternatives 1-5 on marine mammals.

Summary of Impacts:	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5
Incidental take/ entanglement in marine debris	I	I	I	I	I
Spatial/temporal concentration of fishery	I	I	I	I	I
Disturbance	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 2-5 on marine mammals. Under Alternatives 2 - 5, managers of marine mammal resources will have better information on direct and indirect interactions with groundfish fisheries and increased flexibility to meet management objectives. The effects of these alternatives on marine mammals and their habitat are considered insignificant. These alternatives are not expected to alter current rates of interaction beyond those already evaluated in the Draft Programmatic SEIS (NMFS, 2003a). 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 this alternative.

2.2.5 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 Draft Programmatic SEIS, 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 4.3.3 of the Draft Programmatic SEIS. 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 4.3.3.1 of the Draft Programmatic SEIS, 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 are outlined on page 4.3-8 of the Draft Programmatic SEIS.

Indirect Effects - Prey (forage fish) abundance and availability. A description of the effects of prey abundance and availability on seabirds is in Section 4.3.3 of the Draft Programmatic SEIS. 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 Draft Programmatic SEIS. 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 2.2-6 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 2.2-6 Criteria used to estimate significance of effect on seabirds in the Bering Sea, Aleutian Islands, and Gulf of Alaska by Alternatives 1 - 5.

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 2.2-7 Summary of impacts of alternatives 1-5 on seabirds.

Summary of Impacts:	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5
Incidental take	I	I	I	I	I
Prey (forage fish) availability	I	I	I	I	I
Benthic habitat	I	I	I	I	I
Processing waste and offal	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 2-5 on seabirds. Alternatives 2- 5 are anticipated to result in better observer data related to direct and indirect interactions with groundfish fisheries and increased flexibility to meet management objectives. The effects of these alternatives on seabirds are considered insignificant. The changes to the Observer Program proposed under Alternatives 2-5 are not expected to affect current rates of interaction,. Changes in the indirect effects of fisheries on prey (forage fish) abundance and availability, benthic habitat as utilized by seabirds, and processing of waste and offal, all of which could affect seabirds, are not expected by these alternatives.

2.2.6 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 affects on the listed species. Formal consultations, resulting in biological opinions, are conducted for Federal actions that may have an adverse affect on the listed species. Through the biological opinion, a determination is made as to whether the proposed action poses “jeopardy” or “no jeopardy” of extinction to the listed species. If the determination is that the action proposed will cause jeopardy, reasonable and prudent alternatives may be suggested which, if implemented, would modify the action to no longer pose the jeopardy of extinction to the listed species. These reasonable and prudent alternatives must be incorporated into the Federal action if it is to proceed. A biological opinion with the conclusion of no jeopardy will contain an incidental take statement if a

likelihood exists of any take¹ occurring during promulgations of the action. The incidental take statement is appended to a biological opinion and provides for the amount of take that is expected to occur from normal promulgation of the action. An incidental take statement is not the equivalent of a permit to take. Further, if incidental take is expected, then reasonable and prudent measures are specified that are necessary or appropriate to minimize the impact of the take (50 CFR 402.14(i)). A biological opinion with the conclusion of no jeopardy may contain a series of conservation recommendations intended to further reduce the negative impacts to the listed species. These management measures are advisory to the action agency (50 CFR 402.14(j)).

Though all 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 2.2-8 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 ¹	<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 ²
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

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

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

¹ 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)].

ESA Listed Marine Mammals A Biological Opinion was written on Alternative 4 (the preferred alternative) for the Steller Sea Lion Protection Measures SEIS (NMFS 2001a). 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 2.2-8). 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 most recent Biological Opinion on the effects of the groundfish fisheries on listed seabird species expired December 31, 2000. Two Section 7 consultations regarding seabirds were reinitiated in 2000. The first is 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 is action-specific and is on the effects of the 2001 to 2004 TAC specifications for the BSAI and GOA groundfish fisheries on the listed species (and any critical habitat) under the jurisdiction of the USFWS. This action-specific consultation incorporates the alternatives proposed in the SSL Protection Measures SEIS and the 2003 TACs for the groundfish fisheries. Consultations have not been concluded to-date. NMFS requested and was granted an extension of that Biological Opinion and its accompanying Incidental Take Statement.

Effects of Alternatives: 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 intended to benefit endangered and threatened species, and is not anticipated to have any significant negative effect.

2.2.7 Ecosystem considerations

Section 4.8 of the 2003 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 this year’s 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 or 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 effects 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 2003 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, this action is not expected to have any significant negative impacts on the ecosystem.

2.2.8 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 2.2-9 Summary of impacts of alternatives 1-5 on benthic habitat.

Summary of Impacts:	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5
Removal of or damage to HAPC	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
Change in benthic biodiversity	I	I	I	I	I

This analysis focuses on the effects of monitoring fishing at the 2003 TAC levels on benthic habitat important to commercial fish species and their prey. The analysis also provides the information necessary for an EFH (Essential Fish Habitat) 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 essential fish habitat.

Table 2.2-10 Habitat indicators of ecosystem function used in significance determination for alternatives 1-5 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 Essential Fish Habitat 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 essential fish habitat beyond those identified in previous analyses discussed above. Therefore, ratings of insignificant were made for all alternatives considered in this analysis.

2.3 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 better

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 essential fish habitat, effects on biodiversity and ecosystems, and marine mammals.** Please see Section 2.1 - 2.3 for a detailed 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 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 Gulf of Alaska (Alternative 2) and potentially, the Bering Sea and Aleutian Islands (Alternatives 3 - 5). The action is limited to either the groundfish vessels in the GOA, or may include halibut vessels in the GOA and BSAI, GOA-based processors, and BSAI vessels that currently have less than 100% observer coverage. No effects on the unique characteristics of this area are anticipated to occur with any alternative considered because fishing practices 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 not considered in this analysis. Section 1.2 discusses the rationale for limiting the proposed action primarily to the GOA fisheries, with options for extending it to BSAI groundfish vessels that currently have less than 100% coverage requirements. The feasibility of a significant restructuring to the current Observer Program design appeared more feasible if it was limited at least initially to the Gulf of Alaska, in the fisheries in which the coverage and data and disproportionate cost concerns were most acute. However, the problems the action is trying to address are likely present in other fisheries to a lesser extent. Thus, the action may guide future actions, upon review of its implementation.

7. The proposed action is a program design and funding issue that is limited in scope to the GOA groundfish fisheries, with potential options to include the halibut fisheries, GOA processors, and BSAI groundfish fisheries for vessels with less than 100% coverage under the current program. The proposed action is not expected to have any significant individual or **cumulative effect** on the environment. The action alternatives under consideration (Alternative 2 - 5) propose to modify the Observer Program design by changing the funding mechanism to a fee-based and/or Federally subsidized system, as well as allowing NMFS direct control over the deployment of observers. To the extent that Federal managers 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 application 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. This consideration is detailed in Section 2.2.4.

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 detail in Section 1.6

11. **No introduction or spread of non-indigenous species** is expected with this action. This consideration is not application to this action.

2.4 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 effects 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 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 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, it pay for the program through a combination of a fee and Federal subsidies. The proposed program design would assess a uniform fee on all vessels and processors benefitting from the observer program, based on a percentage of ex-vessel revenues. 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.

3.0 REGULATORY IMPACT REVIEW: ECONOMIC EFFECTS OF THE ALTERNATIVES

3.1 Introduction

This Regulatory Impact Review (RIR) evaluates an FMP amendment to restructure the Observer Program for Gulf of Alaska (GOA) groundfish fisheries with options to include halibut vessels, GOA processors, and Bering Sea/Aleutian Islands (BSAI) groundfish vessels that currently have less than 100% coverage requirements.

3.2 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.

3.3 Statutory authority

NMFS manages the U.S. groundfish fisheries of the GOA and BSAI under separate FMPs. The North 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.

3.4 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 North Pacific Groundfish 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.

In attempting to address the issue of Observer Program restructuring, NMFS, Council staff, and the OAC, all agreed that one of the primary reasons that previous efforts had failed was that it was perhaps too ambitious to attempt the total restructuring of the entire Observer Program for all groundfish fisheries off Alaska. This is especially true because large portions of the Bering Sea groundfish industry are relatively satisfied with the operation of the current “pay-as-you-go” program and operate in fisheries such as the AFA pollock fishery where coverage levels are already mandated by statute. The larger BSAI fisheries exhibit fewer of the data quality concerns than the GOA fisheries, primarily because there is substantially more observer coverage required in the BSAI. In addition, the disproportionate cost issues are less severe. Therefore, NMFS and Council staff and the OAC all agreed that a less ambitious restructuring effort focused primarily on those regions and fisheries where the problems of cost-equity and coverage are most acute. It is for this reason that the alternatives contained within this analysis focus on the groundfish and halibut fisheries of the GOA with options to include BSAI groundfish vessels that currently have less than 100% coverage requirements.

3.5 Description of the alternatives

The alternatives and program elements analyzed in this document are described in detail in section 1.3. Four alternative approaches for restructuring the Observer Program are analyzed in addition to the no-action alternative (Alternative 1). Each alternative represents a comprehensive program constructed from a specific set of program elements. This section also contains an extensive discussion of program elements that are common to all four of the action alternatives. The four action alternatives are distinguished primarily in terms of scope (i.e. which vessels and processors would be included in the program) and by some of the details of the fee collection program.

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.

Alternative 2. *GOA groundfish vessels only.* Under this alternative, a new fee-based Observer 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 observer coverage 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 alternative is the same as Alternative 2 except that halibut vessels from all areas off Alaska would be included in the program. 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 is the same as Alternative 3 except that GOA-based groundfish processors would be included in the program. 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, and BSAI groundfish vessels with less than 100% coverage requirements.* This alternative is the same as Alternative 4 except that BSAI groundfish vessels that currently have less than 100% coverage requirements would be included. This includes all groundfish trawl and fixed gear vessels under 125' LOA, all pot vessels of any length, and all halibut vessels. BSAI-based groundfish processors that take deliveries from vessels participating in the program would have the option to participate in the program.

3.6 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 Alaska Groundfish Fisheries Draft Programmatic SEIS (NMFS, 2003a). Section 3.9.2 provides extremely detailed fishing and processing sector profiles. Readers interested in additional detail are referred to the Draft Programmatic SEIS

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 (contractors) and observers.

Table 3.6-1 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 the observer provider companies and observers that operate in fisheries covered by the program restructuring alternatives. Table 3.6-1 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 3.6-1 Estimated numbers and types of entities directly affected by the alternatives (Preliminary estimate) .

		2000-2002 Average		Number of entities affected			
		GOA	BSAI	Alt 2	Alt 3	Alt 4	Alt 5
Catcher processors	AFA CP	0	16	0	0	0	0
	TRAWL H&G	17	22	17	17	17	
	LONGLINE H&G	21	42	21	21	21	
	POT H&G	3	7	3	3	3	
Catcher vessels that fish only groundfish	AFA TRAWL >125	1	30	1	1	1	1
	AFA TRAWL 60-124	8	43	8	8	8	51
	AFA DIVERSIFIED TRAWL < 125	18	24	18	18	18	42
	NON-AFA TRAWL 60-124	20	5	20	20	20	25
	NON-AFA TRAWL <60	23	5	23	23	23	28
	POT > 60	6	1	6	6	6	7
	LONGLINE > 60	36	67	36	36	36	103
	FIXED GEAR 33-59	98	11	98	98	98	109
	FIXED GEAR < 32	38	11	38	38	38	49
Catcher vessels that fish both groundfish and halibut	AFA TRAWL 60-124	1	1	1	1	1	2
	AFA DIVERSIFIED TRAWL < 125	3	3	3	3	3	6
	NON-AFA TRAWL 60-124	14	3	14	14	14	17
	NON-AFATRAWL<60	21	2	21	21	21	23
	LONGLINE>60	64	35	64	64	64	99
	POT>60	29	14	29	29	29	43
	FIXEDGEAR33-59	478	53	478	478	478	531
	FIXEDGEAR<32	59	26	59	59	59	85
Catcher vessels that fish only halibut	LONGLINE>60	5	2	0	5	5	7
	POT>60	1	2	0	1	1	3
	FIXEDGEAR33-59	428	9	0	428	428	437
	FIXEDGEAR<32	304	226	0	304	304	530
Processors	AFA INSHORE	4	6	0	0	4	6
	OTHER BERING SEA	0	8	0	0	0	8
	ALASKA PENINSULA/ALEUTIANS	5	9	0	0	5	9
	KODIAK	15	11	0	0	15	15
	SOUTHCENTRAL	68	8	0	0	68	68
	FLOATER	4	4	0	0	4	4
	MOTHERSHIP	1	3	0	0	1	3

The following sections provides a short summary of each type of vessel listed in Table 3.6-1

3.6.1 Catcher processors

Catcher processors carry the equipment and personnel they need to process the fish that they themselves catch. In some cases catcher processors will also process fish harvested for them by catcher vessels and transferred to them at sea. There are many types of catcher processors. The largest catcher processors are the AFA pollock catcher processors that operate exclusively in the BSAI because sideboard limitations contained in the AFA prohibit such vessels from fishing for groundfish in the GOA. Because all AFA catcher processors have 200% coverage requirements and operate exclusively in the BSAI, they would not be affected by any of the alternatives under consideration. The remaining types of catcher processors that may be affected by some or all of the alternatives are summarized below.

Trawl Head And Gut (H&G) catcher processors. 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 catcher processors focus their efforts on flatfish, Pacific cod, and Atka mackerel. Trawl H&G catcher processors are generally smaller than AFA catcher processors and operate for longer periods than the surimi and fillet catcher processor 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 catcher processors that fish in the GOA would be affected by Alternatives 2 through 5. In addition, the few trawl H&G catcher processors fishing in the BSAI that are less than 125' LOA and that have 30% observer coverage requirements also would be affected by Alternative 5.

Pot catcher processors. 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 catcher processor sector predominantly use pot gear to harvest Bering Sea and GOA groundfish resources. The crab fisheries in the Bering Sea 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 catcher processors over 125 feet are subject to somewhat different observer requirements than other large catcher processors; these pot vessels are only required to have coverage on 30% of their fishing days as opposed to the 100% coverage required on other vessels over 125 feet. Therefore all pot catcher processors would be affected by Alternative 5 and those fishing for groundfish in the GOA would also be affected by Alternatives 2 through 5.

Longline catcher processors. These vessels, also known as freezer longliners, use longline gear to harvest groundfish. Most longline catcher processors are limited to headed and gutted products, and in general are smaller than trawl H&G catcher processors. The longline catcher processor sector evolved because regulations applying to this gear type provide more fishing days than are available to other gear types. Longline catcher processor 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. In 1999, there were 40 vessels operating in this sector. 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 Bering Sea, but a few longline catcher processor vessels operate in both the BSAI and GOA. Those vessels fishing in the GOA would be affected by all of the alternatives. In addition, longline catcher processors under 125' LOA fishing in the BSAI would also be affected by Alternative 5.

3.6.2 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 catcher vessels that deliver raw fish to them. As of June 2000, 20 catcher vessels were permitted to make BSAI pollock deliveries to these motherships. Substantial harvesting and processing power exists in this sector, but is not as great as either the inshore or catcher processor 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 Alaska. 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 was produced from that fish. These figures exclude any additional income generated from the whiting fishery off the Oregon and Washington coasts in the summer.² 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.

3.6.3 Groundfish catcher vessels.

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

AFA-qualified trawl catcher vessels Vessels harvesting BSAI pollock deliver their catch to shoreside processing plants in western Alaska, large floating (mothership) processors, and to the offshore catcher processor fleet. Referred to as catcher vessels, 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 catcher vessels 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 catcher vessels 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 catcher vessels that fish in the GOA would be affected by Alternatives 2 through 5. Those AFA catcher vessels less than 125' LOA that fish in the BSAI would also be affected by Alternative 5.

Non-AFA trawl catcher vessels $\geq 60'$ LOA. Includes all catcher vessels 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 catcher vessels 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 catcher vessels over 60' LOA fish for groundfish in the BSAI on a regular basis. All of the non-AFA trawl catcher vessels would be affected by Alternatives 2 through 5.

Pot catcher vessels 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

²In 1996, whiting accounted for about 12 percent of the mothership's total revenue.

harvest Pacific cod with pots in the 1990s. The feasibility of fishing 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.³ All pot catcher vessels that fish in the GOA would be affected by Alternatives 2 through 5. In addition, those that fish in the BSAI would be affected by Alternative 5.

Hook-and-line catcher vessel \geq 60' LOA. A large majority of the longline catcher vessels 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 catcher vessels 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.

Catcher vessels under 60' LOA (all gear types). This catcher vessel 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 catcher vessels 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.

An additional large group of catcher vessels 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' 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 catcher vessels 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

³Amendment 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 catcher processor and pot catcher vessel sectors. This amendment should be effective beginning in January 2004.

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 catcher vessels 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 2000, 1,643 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 5. To the extent that some of these vessels also fish for groundfish in the GOA they would also be affected by Alternative 2.

3.6.4 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 catcher vessels, 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 and 5.

Non-AFA inshore processors. Non-AFA inshore plants include shorebased 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 and 5, and all non-AFA inshore processors could potentially be affected by Alternative 5. Four groups of non-AFA inshore processors are described below. The groupings are primarily based on the regional location of the facilities: (1) Alaska Peninsula and Aleutian Islands, (2) Kodiak Island, (3) Southcentral Alaska, and (4) Southeast Alaska. Information provided in the narratives below includes all inshore processors for each area collectively, and does not differentiate between size classes or coverage levels..

Alaska Peninsula and Aleutian Islands Inshore Plants. In 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 catcher vessels operating in the BSAI.

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. Other regulations provide special coverage requirements for CDQ and AFA species. Table 3.6-2 show the firms that had 100% and 30% observer coverage in 1996-1998.

Table 3.6-2 Shoreside plants with 30% and 100% observer coverage requirements.

100% Observer Coverage Plants	Area	Primary Products - 1998
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
30% Observer Coverage Plants		
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;

3.6.5 Observer provider companies

There were five observer provider companies in 1999, six in 2000, and five are currently active. The principal activity of some 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. For the purposes of the Regulatory Flexibility Act analysis, all of them are considered to be small entities.

3.7 Program scope: Economic effects of the alternatives on vessels and processors

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 \$365. This includes \$320/day average rate including Level 1 and Level 2 observers; an estimate of \$30/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 5, 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.

3.7.1 Estimated costs of observer coverage under Alternative 1

Table 3.7-1 provides a summary of the 2000-2002 average annual coverage days, estimated observer costs, exvessel value of groundfish landings, and average observer costs as a percentage of exvessel value for each vessel type and management area. The estimated costs of observer coverage as a percentage of exvessel value for vessels currently required to carry observers at least 30% of the time ranges from 0.5% for pot vessels $\geq 60'$ fishing for groundfish in the GOA to 15.9% for pot vessels $\geq 60'$ fishing for groundfish in the BSAI. The wide disparity in observer costs for similar pot vessels fishing in the GOA and BSAI may indicate that some BSAI landings for this vessel class were mis-attributed to the GOA. Further analysis is being undertaken to verify and/or correct these numbers.

Setting aside the figures for pot vessels $\geq 60'$, we see that the second lowest average cost is for trawl H&G vessels fishing in the GOA. The second highest average observer cost is 4.4% for longline H&G vessels fishing in the BSAI.

Table 3.7-1 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 exvessel value (*Preliminary estimate*).

Vessel type and class		Observer days		Estimated observer cost ¹		Groundfish exvessel value		% of exvessel value	
		GOA	BSAI	GOA	BSAI	GOA	BSAI	GOA	BSAI
Catcher processors	AFA CP	-	5,273	-	1,871,915	-	115,317,845	-	1.6
	Trawl H&G	167	3,814	59,285	1,354,088	7,089,531	61,796,188	0.8	2.2
	Longline H&G	306	,443	108,630	2,642,383	10,938,097	60,225,842	1.0	4.4
	Pot H&G	58	163	20,590	57,865	651,816	1,483,294	3.2	3.9
Catcher vessels	AFA trawl ≥ 125	1	4,087	355	1,451,003	confidential	78,187,154	confidential	1.9
	AFA trawl 60-124	41	1,908	14,673	677,458	990,540	70,073,066	1.5	1.0
	AFA diversified trawl < 125	571	498	202,705	176,672	10,183,486	11,917,371	2.0	1.5
	Non-AFA trawl 60-124	890	58	316,068	20,472	13,061,097	623,474	2.4	3.3
	Non-AFA trawl <60	-	-	-	-	8,581,173	872,915	-	-
	Pot ≥ 60	215	676	76,325	239,980	16,810,424	1,510,975	0.5	15.9
	Longline ≥ 60	543	425	192,647	150,993	5,154,738	9,292,662	3.7	1.6
	Fixed gear 33-59	10	-	3,550	-	33,421,003	2,069,898	-	-
Fixed gear < 32	-	-	-	-	969,085	284,834	-	-	
Shoreside processors and motherships	AFA inshore	-	925	-	328,375	2,464,944	137,460,380	0.0	0.2
	Non-AFA Bering Sea	-	23	-	8,165	126	438,701	0.0	1.9
	AK Penn/Aleutians	-	-	-	-	250,327	4,603,932	0.0	0.0
	Kodiak area	1,288	20	457,358	7,100	46,195,944	4,308,520	1.0	0.2
	Southcentral	95	-	33,607	-	39,099,745	229,573	0.1	0.0
	Floater	12	197	4,142	70,053	1,023,293	5,579,031	0.4	1.3
	Mothership	-	936	-	332,280	30,204	21,477,653	0.0	1.5
Total		4,206	26,448	1,493,012	9,389,158	197,218,221	589,205,519	0.8	1.6

¹Based on an estimated daily average cost of \$355/day for 2000-2002 which includes estimated travel costs of \$30/day

3.7.2 Estimated costs of observer coverage under Alternatives 2 through 5

Tables 3.7-2 and 3.7-3 provide preliminary estimates of the estimated costs of observer coverage for each vessel and processor category for each alternative under the low-endpoint and high-endpoint fee percentage options, respectively.

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 exvessel value of all groundfish and halibut landings for all vessels and processors included in the program that would be assessed a fee under each alternative.

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.

The low and high-endpoint fee percentages for combination of alternative and vessel class can be compared to the average cost of observer coverage under the status quo (Alternative 1) to determine whether the average vessel in a particular class would be pay higher or lower average observer costs under each of the alternative relative to the status quo.

It should be emphasized that the low and high-endpoint fee percentages shown in Tables 3.7-2 and 3.7-3 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 would be reduced.

Table 3.7-2 Low-endpoint fee option: Estimated costs of observer coverage under each alternative expressed as a percentage of ex-vessel value (Preliminary estimate).

Vessel type and class		Alt 1		Alt 2 ¹		Alt 3		Alt 4		Alt 5	
		GOA	BSAI	GOA	BSAI	GOA	BSAI	GOA	BSAI	GOA	BSAI
Catcher processors	AFA CP	-	1.6	0.92	1.6	0.43	1.6	0.46	1.6		1.6
	Trawl H&G	0.8	2.2	0.92	2.2	0.43	2.2	0.46	2.2		
	Longline H&G	1.0	4.4	0.92	4.4	0.43	4.4	0.46	4.4		
	Pot H&G	3.2	3.9	0.92	3.9	0.43	3.9	0.46	3.9		
Catcher vessels	AFA trawl ≥ 125	confid.	1.9	0.92	1.9	0.43	1.9	0.46	1.9		1.9
	AFA trawl 60-124	1.5	1.0	0.92	1.0	0.43	1.0	0.46	1.0	data not yet available for Alt 5	
	AFA divers. trawl < 125	2.0	1.5	0.92	1.5	0.43	1.5	0.46	1.5		
	Non-AFA trawl 60-124	2.4	3.3	0.92	3.3	0.43	3.3	0.46	3.3		
	Non-AFA trawl <60	-	-	0.92	-	0.43	-	0.46	-		
	Pot ≥ 60	0.5	15.9	0.92	15.9	0.43	15.9	0.46	15.9		
	Longline ≥ 60	3.7	1.6	0.92	1.6	0.43	1.6	0.46	1.6		
	Fixed gear 33-59	-	-	0.92	-	0.43	-	0.46	-		
Fixed gear < 32	-	-	0.92	-	0.43	-	0.46	-			
Shoreside processors and motherships	AFA inshore	0.0	0.2	0.0	0.2	0.0	0.2	0.46	0.2		0.2
	Non-AFA Bering Sea	0.0	1.9	0.0	1.9	0.0	1.9	0.46	1.9		1.9
	AK Penn/Aleutians	0.0	0.0	0.0	0.0	0.0	0.0	0.46	0.0		0.0
	Kodiak area	1.0	0.2	1.0	0.2	1.0	0.2	0.46	0.2		0.2
	Southcentral	0.1	0.0	0.1	0.0	0.1	0.0	0.46	0.0		0.0
	Floater	0.4	1.3	0.4	1.3	0.4	1.3	0.46	1.3		1.3
	Mothership	0.0	1.5	0.0	1.5	0.0	1.5	0.46	1.5		1.5

¹Based on an estimated daily average cost of \$355/day for 2000-2002 which includes estimated travel costs of \$30/day 0.46

Table 3.7-3 High-endpoint fee option: Estimated costs of observer coverage under each alternative expressed as a percentage of ex-vessel value (Preliminary estimate).

Vessel type and class		Alt 1		Alt 2 ¹		Alt 3		Alt 4		Alt 5	
		GOA	BSAI	GOA	BSAI	GOA	BSAI	GOA	BSAI	GOA	BSAI
Catcher processors	AFA CP	-	1.6	1.53	1.6	1.53	1.6	0.97	1.6		1.6
	Trawl H&G	0.8	2.2	1.53	2.2	1.53	2.2	0.97	2.2		
	Longline H&G	1.0	4.4	1.53	4.4	1.53	4.4	0.97	4.4		
	Pot H&G	3.2	3.9	1.53	3.9	1.53	3.9	0.97	3.9		
Catcher vessels	AFA trawl ≥ 125	confid.	1.9	1.53	1.9	1.53	1.9	0.97	1.9		1.9
	AFA trawl 60-124	1.5	1.0	1.53	1.0	1.53	1.0	0.97	1.0	data not yet available for Alt 5	
	AFA divers. trawl < 125	2.0	1.5	1.53	1.5	1.53	1.5	0.97	1.5		
	Non-AFA trawl 60-124	2.4	3.3	1.53	3.3	1.53	3.3	0.97	3.3		
	Non-AFA trawl <60	-	-	1.53	-	1.53	-	0.97	-		
	Pot ≥ 60	0.5	15.9	1.53	15.9	1.53	15.9	0.97	15.9		
	Longline ≥ 60	3.7	1.6	1.53	1.6	1.53	1.6	0.97	1.6		
	Fixed gear 33-59	-	-	1.53	-	1.53	-	0.97	-		
Fixed gear < 32	-	-	1.53	-	1.53	-	0.97	-			
Shoreside processors and motherships	AFA inshore	0.0	0.2	0.0	0.2	0.0	0.2	0.97	0.2		0.2
	Non-AFA Bering Sea	0.0	1.9	0.0	1.9	0.0	1.9	0.97	1.9		1.9
	AK Penn/Aleutians	0.0	0.0	0.0	0.0	0.0	0.0	0.97	0.0		0.0
	Kodiak area	1.0	0.2	1.0	0.2	1.0	0.2	0.97	0.2		0.2
	Southcentral	0.1	0.0	0.1	0.0	0.1	0.0	0.97	0.0		0.0
	Floater	0.4	1.3	0.4	1.3	0.4	1.3	0.97	1.3		1.3
	Mothership	0.0	1.5	0.0	1.5	0.0	1.5	0.97	1.5		1.5

¹Based on an estimated daily average cost of \$355/day for 2000-2002 which includes estimated travel costs of \$30/day

The direct observer cost are compared to gross revenue because the cost data required to estimate net revenue are not available. The direct observer costs are obviously much larger relative to net revenue.

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 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 cost of a vessel's observer coverage is determined principally by its coverage requirements under the Federal regulations and the cost per day of obtaining observer services from an observer provider.

Alternatives 2 through 5 address the problem of inequity by imposing a uniform fee for all vessels and processors. However, the direct costs vary to some extent between the alternatives because the composition of vessels participating in the program varies among alternatives.

3.8 Effects of decisions related to the fee basis (actual or standard prices)

This section will examine issues related to the use of standard and actual ex-vessel prices, and explore the option of establishing a set fee for each species rather than a variable fee based on ex-vessel value. 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.

3.8.1 Supplemental fees 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 fisheries covered by the program 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 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 greatly increased observer coverage. Other proposals such as the bycatch cooperatives under consideration for BSAI catcher processors 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 rationalization alternatives under consideration contain options for individual halibut 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 supplemental fee program is not included as a component in any of the alternatives in this analysis because no rationalization programs requiring an increase in observer coverage have been approved in any of the fisheries covered by the restructured Observer Program. However, the Council may wish to maintain the option to establish supplemental fee programs in the future, should they be needed. 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.

3.8.2 Fee collection mechanism

A major issue with the previous Research Plan was the requirement that processors collect and submit vessel fees. Processors were concerned with the administrative burdens associated with collecting and submitting fees. With advances in electronic reporting, fee tracking and submission could be largely automated. Therefore, the administrative burdens 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. 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 and 5). Under Alternatives 4 and 5, 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.

3.9 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 through Year-1, 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, startup funds equal to one-year's estimated coverage costs are likely to be required prior to the start of the first year of operation.

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 catcher/processors retired under Section 209 of the AFA. Startup costs could be paid back 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 impossible 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 where 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 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 is not outside the realm of possibility.

3.10 Contracting process.

NMFS is serviced for its contracting needs by staff in NOAA's Western Administrative Support Center (WASC) located in the Alaska Fisheries Science Center. 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. The essential elements of the Federal contracting process are identified in Table 3.10-1. WASC staff prepared this table using a hypothetical contract worth \$2 million - \$4 million annually, issued for one year with two option years. The table identifies the key steps, responsible parties, and tentative timelines for each step. Items in red are primarily the responsibility of the Observer Program. Items in black are primarily a WASC contracting responsibility. Green items are schedule impacts that are set by regulation. Blue items represent legal review at the Department of Commerce level.

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

Additional tasks that lend themselves to contracting

Under the current program, the tasks necessary to run the Observer Program are split between 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 a contractor(s) to provide the observer and coordinate their scheduling needs. The 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 onto the contractor. 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 proofing of observer data.

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.

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 them is as follows:

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 a 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.

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 on 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.

NORTH PACIFIC GROUND FISH OBSERVER PROGRAM

ID	Task Name	Duration	Start	Finish	Predecess	Resource Names
1	ALASKA GROUND FISH OBSERVER PROGRAM	172 days	Sun 6/1/03	Tue 1/27/04		
2	<i>DEVELOP ACQUISITION PACKAGE</i>	47 days	Sun 6/1/03	Tue 8/5/03		NPGOP
3	<i>DEVELOP WORK STATEMENT</i>	60 edays	Sun 6/1/03	Thu 7/31/03		NPGOP
4	<i>OBTAIN FUNDING DOCUMENTS</i>	3 days	Mon 6/2/03	Wed 6/4/03		NPGOP
5	<i>OBTAIN DAO 208-10 APPROVAL FOR SERVICES</i>	3 days	Thu 7/31/03	Mon 8/4/03	3	NPGOP
6	<i>SUBMITT ACQUISITION PACAKAGE TO AMD</i>	1 day	Tue 8/5/03	Tue 8/5/03	5	
7	REVIEW ACQUISITION PACKAGE	1 day	Wed 8/6/03	Wed 8/6/03	2	AMD
8	DEVELOP ACQUISITION STRATEGY	5 days	Thu 8/7/03	Wed 8/13/03	7	AMD,NPGOP
9	<u>PREPARE & ISSUE CBD SYNOPSIS</u>	17 days	Thu 8/14/03	Fri 9/5/03	8	AMD
10	OBTAIN WAGE RATES	30 edays	Wed 8/13/03	Fri 9/12/03	8	AMD
11	PREPARE OPTION JUSTIFICATION	1 day	Thu 8/14/03	Thu 8/14/03	8	AMD
12	PREPARE SOLICITATION (RFP)	5 days	Thu 8/14/03	Wed 8/20/03	8	AMD
13	<u>PRE-SOLICITATION LEGAL REVIEW</u>	14 edays	Wed 8/20/03	Wed 9/3/03	11,12	DOC OGC
14	RFP TO REVIEW BOARD	3 days	Thu 8/21/03	Mon 8/25/03	12	AMD
15	<i>CLIENT REVIEW OF RFP</i>	5 days	Thu 8/21/03	Wed 8/27/03	12	NPGOP
16	REVISE RFP BASED ON REVIEWS	1 day	Thu 9/4/03	Thu 9/4/03	13,14,15	AMD
17	PRINT COPIES OF RFP	2 days	Fri 9/5/03	Mon 9/8/03	16	AMD
18	ISSUE RFP	1 day	Tue 9/9/03	Tue 9/9/03	17	AMD
19	PRE-PROPOSAL CONFERENCE	1 day	Fri 12/19/03	Fri 12/19/03	18	AMD,NPGOP,OFFERORS
20	RESPOND TO OFFEROR'S QUESTIONS	2 days	Mon 12/22/03	Tue 12/23/03	19	AMD,NPGOP
21	<u>RECEIVE PROPOSALS</u>	45 edays	Tue 9/9/03	Fri 10/24/03	18	AMD,OFFERORS
22	<i>SEB TECHNICAL REVIEW</i>	14 edays	Fri 10/24/03	Fri 11/7/03	21	NPGOP
23	COST/PRICE ANALYSIS	5 days	Mon 10/27/03	Fri 10/31/03	21	AMD
24	<i>SEB MEMO TO CO</i>	2 days	Mon 11/10/03	Tue 11/11/03	22	NPGOP
25	DETERMINE COMPETITIVE RANGE	1 day	Wed 11/12/03	Wed 11/12/03	23,24	AMD,NPGOP
26	NOTIFY EXCLUDED FIRMS	1 day	Thu 11/13/03	Thu 11/13/03	25	AMD
27	<i>PRE-AWARD DEBRIEF</i>	1 day	Fri 11/14/03	Fri 11/14/03	26	AMD,NPGOP,OFFERORS
28	PREPARE PRE-NEG OBJECTIVES	3 days	Mon 11/17/03	Wed 11/19/03	27	AMD,NPGOP
29	PRE-NEG REVIEW BOARD	3 days	Thu 11/20/03	Mon 11/24/03	28	AMD
30	NEGOTIATIONS	14 edays	Mon 11/24/03	Mon 12/8/03	29	AMD,NPGOP,OFFERORS
31	REQUEST REVISED OFFERS	1 day	Tue 12/9/03	Tue 12/9/03	30	AMD
32	<u>RECEIVE REVISED OFFERS</u>	14 edays	Tue 12/9/03	Tue 12/23/03	31	AMD,OFFERORS
33	<i>SEB REVIEW</i>	2 days	Wed 12/24/03	Thu 12/25/03	32	NPGOP,AMD
34	<i>SEB AWARD RECOMMENDATION</i>	2 days	Fri 12/26/03	Mon 12/29/03	33	NPGOP
35	NEGOTIATION SUMMARY	2 days	Tue 12/30/03	Wed 12/31/03	34	AMD
36	RESPONSIBILITY DETERMINATION	1 day	Tue 12/30/03	Tue 12/30/03	34	AMD
37	PRICE REASONABLENESS DETERMINATION	1 day	Tue 12/30/03	Tue 12/30/03	34	AMD
38	PREPARE CONTRACT	3 days	Tue 12/30/03	Thu 1/1/04	34	AMD
39	SUBMIT AWARD TO LEGAL	1 day	Fri 1/2/04	Fri 1/2/04	35,36,37,38	AMD
40	<u>LEGAL REVIEW OF AWARD</u>	14 edays	Fri 1/2/04	Fri 1/16/04	39	DOC OGC
41	AWARD NOTIFICATION	1 day	Mon 1/5/04	Mon 1/5/04	39	AMD
42	UNSUCCESSFULL OFFEROR LETTERS	1 day	Mon 1/5/04	Mon 1/5/04	39	AMD
43	CBD AWARD SYNOPSIS	1 day	Mon 1/5/04	Mon 1/5/04	39	AMD
44	INCORPORATE LEGAL COMMENTS	1 day	Mon 1/19/04	Mon 1/19/04	40	AMD
45	AWARD CONTRACTS	1 day	Tue 1/20/04	Tue 1/20/04	41,42,43,44	AMD
46	DEBRIEF UNSUCCESSFUL OFFERORS	5 days	Wed 1/21/04	Tue 1/27/04	45	AMD,NPGOP,OFFERORS

3.11 Observer salary issues

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.

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.

The development of Fishery Observer Position Descriptions for consideration by the Department of Labor was prompted by inconsistencies in wage rate determinations that had been made up to that point, and the fact that these wages were considerably less than the federal equivalency for the same type of position. For example, wage rate determinations issued by the Department of Labor for various localities stipulated minimum hourly wages ranging from \$9.55/hour (2001 for California, Oregon, Washington) to \$10.59/hour (2001 for California County of Los Angeles), whereas the 2003 hourly pay scale for GS-5 employees is \$11.23/hour (see http://www.opm.gov/oca/03tables/pdf/g_s_h.pdf). If the Department of Labor had a uniform national standard for making wage rate determinations for fisheries observers, then there would be more consistency in wage rates for contracted observers, and these wages would reflect wages that would be paid to federal employees performing the same job functions.

In developing the position that contracted fisheries observers are technicians, the National Observer Program considered both the duties and responsibilities of fisheries observers as well as past recruitment actions for Federal fisheries observers. The classification of fisheries observers as technicians is also consistent with guidance from the Office of Personnel Management's classification manual. The duties and responsibilities of fisheries observers involve adhering to routine sampling protocols that are planned and managed by professional employees. Fisheries observers perform these duties unsupervised, but all work is carefully reviewed for completeness and accuracy by professional biologists. Although most of the contracted observer programs currently require that observers have a professional degree (usually a Bachelor's degree in a biological science) as an eligibility standard for recruitment by the contracted observer service provider, specialized experience can be substituted for education. Observers then receive up to three weeks of specialized training, which must be completed to the satisfaction of the program before observers are certified to be deployed aboard fishing vessels.

Based on this information, NMFS determined that fisheries observers are biological technicians and are therefore eligible for overtime compensation under the Service Contract Act (SCA), the Fair Labor Standards Act (FLSA), and other Acts stipulating wages and benefits for contracted service employees, as appropriate. Even though work performed by observers beyond U.S. territorial waters is outside of the jurisdiction of the SCA and FLSA, attempting to track the geographical location of a vessel in order to determine whether or not SCA/FLSA wages apply would be a huge administrative burden for both the contracted observer provider and the agency. Therefore, it is the position of NMFS that the wage rate that the Department of Labor determines is appropriate for each specific locality should be applied to contracted fisheries observers whether they are working inside or outside of U.S. territorial waters in order to provide a fair, simple, and consistent application of the SCA/FLSA.

This determination has the potential to affect the cost of observer coverage under all of the action alternatives. The SCA applies anytime the federal government directly contracts for services as would be the case under Alternatives 2 through 5. However, the SCA does not apply when vessels contract directly with observer providers for coverage as is the case under the status quo.

However, the applicability of NMFS' national wage classifications for observers to the groundfish fisheries in Alaska is not entirely clear due to the existence of an observer union and collective bargaining agreement. Generally speaking, wages established through collective bargaining are considered to be the "prevailing wage" and supersede national wage classifications determined by the Department of Labor under the SCA. Therefore, it is not clear whether overtime pay would automatically be required as long as a collective bargaining agreement is in effect. However if national wage classifications are superior to the existing collective bargaining agreement then observers and the union would have a powerful incentive to abandon the agreement at the first opportunity. It is also not clear at this time whether abandonment of a collective bargaining agreement would automatically cause wages to default to the national classification system. Especially if a collective bargaining agreement remains in effect for the 100% and 200% coverage level BSAI pay-as-you-go fisheries that are not included in any of the alternatives. NMFS-Alaska Region has contacted the National Observer Program for clarification on this issue but has not yet received an answer.

The North Pacific Groundfish Observer Program is currently developing fishery-by-fishery estimates of average daily and weekly hours worked by observers in order to estimate the effect that this national wage and overtime standards would have on observer salaries in Alaska if it turns out that the DOC OCG determination applies to the unionized groundfish observer program off Alaska. This information will be made available to the Council as soon as it is available.

Until the issue of overtime pay for observers is resolved, the cost estimates contained within this analysis should be considered preliminary and subject to change.

3.12 Coverage levels

This preliminary analysis does not attempt to examine what observer coverage levels could or should be under any of the action alternatives. The issue of how to determine coverage levels for individual fisheries is the subject of a separate analysis currently under contract by the Council that will be provided as soon as it is available. The intent is to develop a systematic process whereby the data and coverage needs in different fisheries could be evaluated to determine the how much overall coverage is needed and to determine the distribution of coverage among the various groundfish and halibut fisheries that would be covered by the new program. This separate analysis will provide information to support the determination of an initial fee percentage for the first year(s) of the program until a systematic process for determining future coverage levels can be implemented.

3.13 Integration of technology into monitoring and use of fee proceeds

The Council is currently contracting 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. Several alternatives to human observers have been tried 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.

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.

3.14 Issues associated with crossovers between the GOA and BSAI programs

This section will explore issues and complications associated with vessels crossing over between fisheries governed by the new program and by the existing pay-as-you-go program and observers and observer providers operating under both programs. This section also will explore issues and complications associated with Alternative 5, which would have both programs operating simultaneously in some BSAI fisheries.

3.15 Enforcement issues

This section has not yet been completed.

3.16 Other implementation issues

Additional topics for analysis in subsequent drafts of this document include:

- Integration of fee collection program with existing recordkeeping and reporting software,
- The use of electronic vessel logbooks to track vessel activity in order to manage coverage,
- Additional program activities that may lend themselves to outside contract

4.0 REFERENCES

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