

Draft
Regulatory Impact Review /
Initial Regulatory Flexibility Analysis

for

A Proposed Rule to Amend Regulations for
Observer At-Sea Electronic Communication Equipment Requirements for Vessels and Shoreside
Processors in the North Pacific Groundfish Fisheries

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Abstract: This document contains a Regulatory Impact Review (RIR) and an Initial Regulatory Flexibility Analysis (IRFA) that analyze the potential impacts of a regulatory amendment to require upgrades to certain data processing and communications technology carried by groundfish catcher vessels, catcher/processors, motherships, and on-shore processors, and other regulations. These data processing and communications upgrades are needed to support the groundfish observer program. The analyses in this document address the cost-benefit analysis requirements of Presidential Executive Order 12866, and the small entity impact analysis requirements of the Regulatory Flexibility Act.

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Executive Summary

Introduction

Observers on fishing vessels and at shoreside plants play an important role in the in-season management of Bering Sea and Aleutian Island (BSAI) and Gulf of Alaska (GOA) groundfish fisheries. The data they provide are particularly important for monitoring prohibited species catches (PSC) in order to manage PSC closures. Timely and accurate data are important to in-season fisheries managers seeking to manage openings and closures so as to meet the management objectives of the North Pacific Fisheries Management Council and to optimize the value of the fishery resources.

The Observer Communication System (OCS, formerly referred to as the “ATLAS” system) is comprised of computers and communications equipment supplied by vessel and processing plant operators, and custom computer software supplied by NMFS. It allows observers to rapidly process and report the data that they collect. Its use by observers on catcher vessels, catcher/processors, motherships, and shoreside processors has led to more timely and more accurate fisheries data. NMFS staff at the observer program are rebuilding the software component of the OCS to meet current and future information demands. In this action, NMFS proposes to require operations already subject to OCS requirements to adopt hardware upgrades to meet current technology standards necessary to support this new OCS software and facilitate its installation.

This Regulatory Impact Review/Initial Regulatory Flexibility Analysis (RIR/IRFA) provides an analysis of three OCS regulatory alternatives under consideration. These include a status quo alternative and two action alternatives.

RIR

A Regulatory Impact Review (RIR), prepared in accordance with Presidential Executive Order 12866, provides a comparative analysis of the costs and benefits of the alternatives under consideration for a proposed action. The analysis also compares each alternative against significance criteria found in the Executive Order. The alternatives and their impacts are summarized below:

- 1 *No change from the status quo.* Under this alternative, older computing and communications hardware remains on catcher-processors, motherships, and shoreside processors. These systems would likely not be able to accommodate new NMFS OCS software. Installation of this software would remain cumbersome and inefficient. Timely and accurate fisheries data, critical to the effective management of the Nation’s living marine resources, may be less readily available to scientists, regulators, and enforcement personnel, diminishing the net benefit to the Nation deriving from these assets. This “no action” alternative serves as a baseline against which the relative impacts of the other alternative are measured.
- 2 *1) All vessels currently subject to OCS requirements would be required to conduct a basic upgrade of their computing hardware which would include a minimum operating system of Windows 98 and 256k of RAM; 2) observer providers would be required to ensure observers are deployed with their personal belongings and gear; and 3) other non-substantive, administrative changes to regulations affecting the observer program.*

NMFS staff at the Observer Program are engaged in rebuilding and upgrading the software component of the OCS. The new OCS software is intended to increase overall data quality by

increasing the functionality and efficiency of the OCS system. This alternative would require vessels and shoreside or stationary floating processors already subject to OCS requirements to adopt hardware and software upgrades to meet current technology standards necessary to support the OCS software. Under this alternative, these hardware and software requirements would include a minimum Windows 98 operating system and the personal computer provided for use by the observer would be required to contain at least 256 megabytes of Random Access Memory (RAM). This is expected to cost about \$350 for a vessel or processor that must upgrade both hardware and software. Taking account of Observer Program estimates of the numbers of operations that must perform both upgrades, average costs were about \$150 for catcher-processors, shoreside processors, and catcher vessels. NMFS costs for assisting in the installation of the new OCS software would be about \$18,000.

Regulations at §679.50(i)(2)(vi)(A)(1) describe travel and logistics requirements for observer providers when deploying observers. Recently, an observer was deployed to a vessel without the observer's personal belongings, or the gear necessary to conduct sampling duties. Deployment without personal effects or equipment could compromise an observer's safety, comfort, and ability to complete his or her duties. Although these occurrences are rare, these regulations would be revised to clarify that an observer provider is required to provide all necessary transportation, including arrangements and logistics, to the observer and his or her gear and personal belongings. Costs to the industry cannot be estimated, but are expected to be small.

Regulations at 50 CFR 679.2 contain definitions for terms used elsewhere in 50 CFR 679. Regulations at §679.50(c) describe observer coverage requirements for vessels engaged in directed fishing for groundfish. However, the first paragraph of the current definition of directed fishing is contained under the heading, "With respect to groundfish recordkeeping and reporting." NOAA General Counsel recently prosecuted an observer coverage violation where it was necessary to describe the linkage between this definition of directed fishing and observer coverage requirements. This proposed action would revise the heading of the first paragraph of the definition for directed fishing to read, "Unless otherwise indicated" to clarify that the definition also applies to observer coverage regulations. Affected entities would not be expected to incur any costs as a result of these proposed changes.

Regulations at §679.28 describe requirements for scales, observer sampling stations, bins for volumetric estimates, and vessel monitoring system hardware. Section 679.28(g)(1) describes catch monitoring control plans (CMCPs) generally and §679.28(g)(4)(iii) describes a component of the inspection process for CMCPs. However, these sections incorrectly cross reference performance standards in §679.28(g)(6). This action proposes to correct this error and replace the reference to (g)(6) in § 679.28(g)(1) and (g)(4)(iii) with (g)(7). No costs are expected because of this proposed change.

- 3 *All vessels currently subject to OCS requirements would be required to upgrade their computing hardware, which, in addition to those components described in Alternative 2, would include a CD drive; 2) observer providers would be required to ensure observers are deployed with their personal belongings and gear; and 3) other non-substantive, administrative changes to regulations affecting the observer program (Preferred Alternative).* NMFS staff at the Observer Program are engaged in rebuilding and upgrading the software component of the OCS. The new OCS software is intended to increase overall data quality by increasing the functionality and efficiency of the OCS system. This alternative would require vessels and shoreside or stationary floating processors already subject to OCS requirements to adopt hardware and software

upgrades to meet current technology standards necessary to support the OCS software. Under this alternative, these hardware and software requirements would include a minimum Windows 98 operating system, the personal computer provided for use by the observer would be required to contain a readable CD drive, and these computers would be required to contain at least 256 megabytes of RAM. This is expected to cost about \$500 for a vessel or processor that must upgrade both hardware and software. Taking account of Observer Program estimates of the numbers of operations that must perform both upgrades, average costs were about \$225 for catcher-processors, shoreside processors, and catcher vessels. NMFS costs for assisting in the installation of the new OCS software would be about \$18,000.

Costs associated with changes to regulations supporting the observer program are described above.

There are several sources of uncertainty about the cost estimates. Chief among these: (1) there are potential overestimates of the costs of acquiring hardware, if large numbers of operations already have the equipment; (2) the average costs of upgrading individual computers may be overestimated, further biasing the cost estimates upward; (3) estimates of failure rates are rough, operations are assumed to replace rather than repair failed computers and communications hardware, and the impact of lost fishing time, if equipment failure makes transmission of observer reports impossible, cannot be quantified; (4) frequency of these occurrences and, because arrangements between vessels and observer providers are confidential, implications to cost of an observer not being deployed due to instances when his or her personal belongings and gear are not able to remain with the observer are unknown.

IRFA

This document also contains an Initial Regulatory Flexibility Analysis (IRFA), conducted in accordance with the Regulatory Flexibility Act of 1980, and the Small Business Regulatory Enforcement Fairness Act of 1996. The Regulatory Flexibility Act was designed to place the burden on government to review all regulations to ensure that, while accomplishing their intended purposes, they do not unduly inhibit the ability of small entities to compete.

In the IRFA, it is estimated that the proposed alternatives to the status quo could affect the following numbers of small, directly regulated, entities: 22 small catcher-processors and no motherships. Catcher vessels greater than or equal to 125 feet (except for pot vessels) and all shoreside and stationary floating processors, are currently required to have OCS capability and would be subject to upgrades under Alternatives 2 and 3. However, confidentiality restrictions require NMFS to report gross revenue information in aggregations of four or more entities. Due to these restrictions NMFS is unable to report gross revenues for small entities that would be regulated under this action. All of the motherships were assumed to be large entities. The numbers of large and small shoreside processors were estimated on the basis of information from NMFS staff familiar with the industry. All AFA vessels are considered to be large entities due to their affiliation with entities which, collectively, have gross revenues over \$3.5 million.

Unfortunately, while it is possible to make estimates of an operation's gross revenues, using state and federal data routinely collected from fishing operations and fish processing operations, there is almost no information available on the costs of these operations. It has therefore been necessary to conduct this analysis by relating the attributable costs of the proposals, to the average gross revenues of the different classes of operations, rather than to their net revenues.

Under the preferred alternative (Alternative 3) a directly regulated small entity which had to upgrade with respect to all three required hardware and software elements, would incur a one-time cost of about \$500. While there will be periodic maintenance costs, as well as costs associated with replacing hardware when it fails, there is no evidence that these two cost categories will differ significantly between the status quo and the action alternatives.

- *Catcher/processors.* These small entities were estimated to gross \$2.19 million each in 2003. Upgrade and investment costs thus came to about 0.02% of one year's gross revenues for a small entity.
- *Catcher vessels.* Confidentiality restrictions prohibit NMFS from reporting economic information on small catcher vessels that would be directly affected by this action. From other sources, a lower bound estimate on average gross receipts of \$260,000 per year was obtained. This suggests that the maximum upgrade and investment expense which could be imposed upon an operation in this category, as a result of adoption of the preferred alternative, would be on the order of 0.2% of gross revenues. Not all operations would be expected to incur this level of cost to meet the revised OCS standard.
- *Shoreside processors.* Confidentiality restrictions prohibit NMFS from reporting economic information on small shoreside and stationary floating processors.
- *Observer providers.* Four firms serve as observer providers. These would be directly regulated by elements of this action that require them to ensure that observers are delivered to their work stations with their personal and professional gear. This is a clarification of an existing requirement. Failures to deliver observers with their gear are unusual. Observer providers are expected to pass any associated costs of fully complying with these requirements on to the vessels and processors contracting for observer services. Because observers are usually delivered with their gear now, the costs of this modification of regulations are expected to be small.

This action did not revise or impose new recordkeeping and reporting requirements on small entities. The analysis did not reveal any federal rules that duplicate, overlap, or conflict with the proposed action.

These alternatives reflect decisions, already incorporated into the observer program, to minimize the burden on small entities. Catcher vessels under 60 feet LOA, which include the greatest numbers of small entities as defined by SBA criteria, are exempted from the observer program itself. There were 740 of these vessels fishing hook and line, pot, and trawl gear in 2003 (Hiatt *et al*, 2004). The exclusion of this large fleet of fishing vessels from the observer program has meant the sacrifice of information that would have been useful for fisheries management. The exclusion has been motivated in large part by recognition that there are unique difficulties associated with placing observers on these small vessels and that requiring these small entities to participate in this program may place an unreasonable and disproportional economic and operational burden on some of these vessels.

Two of the alternatives considered would have involved smaller impacts on small entities than those associated with the preferred alternative. Alternatives 1 and 2 would impose fewer costs than the preferred alternative. In addition to upgrades in Alternative 2 (i.e., minimum Windows 98 operating system and 256 megabytes of RAM), Alternative 3 would require each computer for use by the observer to contain a readable CD drive. However, this proposed action is considered to impose minimal costs relative to revenues and the availability of a CD drive for observer data collection and management represents an important increase in capability and efficiency. The difference in the hardware costs (i.e., CD drive) between Alternative 2 and 3 are estimated at less than \$150 per operation, for those that do not

already have this capability.

1.0 Regulatory Impact Review

1.1 Introduction

Observers on fishing vessels and at shoreside plants play an important role in the in-season management of Bering Sea and Aleutian Island (BSAI) and Gulf of Alaska (GOA) groundfish fisheries. The data they provide are particularly important for monitoring prohibited species catches (PSC) in order to manage PSC closures. Timely and accurate data are important to in-season fisheries managers seeking to manage openings and closures, so as to meet the management objectives of the North Pacific Fisheries Management Council, and to optimize the benefits to the Nation, deriving from these fishery resources.

The Observer Communication System (OCS, formerly referred to as the “ATLAS” system) is comprised of computers and communications equipment, supplied by vessel and processing plant operators, and custom computer software supplied by NMFS. It allows observers to rapidly process and report the data that they collect. Its use by observers on catcher vessels, catcher/processors, and motherships (vessels), onshore plants and stationary floating processors has led to more timely and more accurate fisheries data. NMFS Observer Program staff are rebuilding the software component of the OCS to meet current and future information demands. In this action, NMFS proposes to require operations already subject to OCS requirements to adopt hardware upgrades to meet current technology standards, necessary to support this new OCS software, and facilitate its installation.

This Regulatory Impact Review (RIR) evaluates alternatives to the status quo that would require upgrades to the OCS data processing and communications technology employed by groundfish catcher vessels, catcher/processors, motherships, onshore plants, and stationary floating processors.

In addition, this RIR evaluates administrative ‘housekeeping’ rule changes to clarify the intent of observer regulations.

1.2 What is a Regulatory Impact Review?

Preparation of an 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.

1.3 Statutory authority for this action

The National Marine Fisheries Service manages the U.S. groundfish fisheries of the Gulf of Alaska and the Bering Sea and Aleutian Islands management areas in the Exclusive Economic Zone under the Fishery Management Plans (FMPs) for those areas. The North Pacific Fishery Management Council (Council) prepared the FMPs under the authority of the Magnuson-Stevens Fishery Conservation and Management Act.

Regulations implement the FMPs at 50 CFR part 679. General regulations that also pertain to U.S. fisheries appear at subpart H of 50 CFR part 600.

The Council adopted, and NMFS approved and implemented, the Interim Groundfish Observer Program (Interim Program) in 1996 (61 FR 56425, November 1, 1996), which superseded the North Pacific Fisheries Research Plan (Research Plan). The requirements of the Interim Program were extended through 1998 (62 FR 67755, December 30, 1997), again through 2000 (63 FR 69024, December 15, 1998), again through 2002 (65 FR 80381, December 21, 2000), and again through 2007 (67 FR 72595, December 6, 2002). The Interim Program provides the regulatory framework for the collection of data by observers to obtain information necessary for the conservation and management of the groundfish fisheries managed under the FMPs. Further, it authorizes mandatory observer coverage requirements for vessels and shoreside processors and establishes vessel, processor, and observer provider responsibilities relating to the Observer Program.

1.4 Purpose and need for this action

The OCS system and its importance in groundfish fishery management

Regulations implementing the Observer Program at §679.50 require observer coverage aboard fishing vessels and shoreside processors that participate in the Alaska groundfish fisheries. Timely communication between the fishing industry and NMFS through catch reports submitted to NMFS, by both industry and observers, are crucial to effective in-season monitoring of groundfish quotas and prohibited species catch (PSC) allowances.

Regulations requiring electronic submission of observer reports from catcher/processors, motherships,

onshore plants, and stationary floating processors through the OCS¹ were implemented in 1995, and are found at §679.50(g).

All vessels that carry an observer 100% of the time, and all shoreside and stationary floating processors required to have an observer present, are required to comply with OCS regulations. The OCS system is comprised of: 1) electronic hardware that meets NMFS specifications and is supplied by the vessel, shoreside, or stationary floating processor, and 2) dedicated software provided by NMFS. Together the hardware and software allow observers to communicate with, and transmit data to, NMFS.

Under its preferred alternative (Alternative 3), NMFS proposes to require operations already subject to the OCS requirement (and, that have thus already incurred costs for basic hardware, supporting equipment, and operational adjustments, to comply with the original management requirements) to invest in needed hardware and software upgrades to support the new OCS software.

The OCS system increases the timeliness and accuracy of fisheries data that play an important role in in-season management of fisheries. Observer data are the primary source of information on at-sea discards and PSC catch rates, and play an important role in preventing overfishing of non-target and PSC species. If these time-critical data were not available, in-season managers might have to be more conservative in management of target species, potentially leading to reduced harvests and revenues for fishermen, and a reduction in the net benefits to the Nation deriving from optimum management of these living marine resources.

In addition, the OCS allows observers to enter and transmit their data and messages to NMFS and provides several advantages for data quality over paper data forms submitted by other means. The OCS system allows for observer support by in-season advisors, earlier data entry and data checking, and reduced data transcription. Observers can enter data more quickly, freeing up time for other duties, including taking larger or more frequent samples.

Private industry also finds OCS data useful. Industry associations and cooperatives use the data, which are posted on web sites by NMFS, to coordinate the activity of their fleets, to avoid bycatch hot spots. For example, Fisheries Information Services of Juneau analyzes observer data and provides in-season reports on seabird bycatch to BSAI longliners. Fleets that can reduce bycatch rates this way may avoid costly bycatch or PSC triggered closures. (Smoker, pers. comm.).

Hardware and Software Upgrades

Current regulations stipulate that any vessel required to carry one or more observers at all times, or any stationary or floating processor required to have an observer present, must facilitate transmission of observer data to NMFS by providing a computer and communications equipment which meet certain specifications. Hardware requirements specified in these regulations to support OCS were considered “state of the art” at the time they were implemented in 1995. These requirements were designed to support the NMFS software component of the OCS. Computer technology has advanced at a rapid rate since then. In 2003, new regulations required some hardware upgrades (69 FR 58038 October 8, 2003), which improved the OCS.

¹The OCS has been referred to as the “ATLAS” system in earlier documents.

However, the OCS software application, developed by NMFS, has recently been updated and now requires more powerful computers on which to run. As a result, the hardware requirements adopted in 1995, and modified in 2003, are technologically out of date, difficult, and costly to maintain. It is therefore necessary to require the hardware to be updated to meet current technology standards.

Under Alternative 2, regulations at §679.50(g)(1)(iii)(B)(1) and (g)(2)(iii)(B)(1) would be revised to upgrade minimum compatible operating system requirements to Windows 98. A more recent version would also be acceptable. Current regulations require minimum operating system requirements of Windows 95. However, Windows 95 is no longer supported by its vendor and does not meet the technical requirements of the new OCS software. Additionally, the minimum random access memory (RAM) requirement in current regulations would be upgraded to 256 megabytes. Initial testing of the new OCS software indicates current RAM requirements do not support the memory needs of the program.

In addition to the requirements described above, Alternative 3 would revise regulations to require vessels subject to the OCS requirements to ensure the personal computer provided for use by the observer has a readable Compact Disc (CD) drive (either built into the computer, or external). This requirement would facilitate the installation of the new OCS software by increasing the installation speed and eliminating the need for multiple floppy discs.

While other options which facilitate the installation of OCS software seem attractive, there are several issues which make a CD drive preferable over these options (Brown, pers. comm.):

1. An alternative to a CD drive requirement could be for NMFS staff to carry a USB drive which contains the OCS software. Staff could then install the software on vessel or processor computers directly on the computer. However, vessels and stationary floating processors typically secure computers to the vessel to ensure they stay in place during rough weather. USB ports are typically installed in the back of the computer, and vessel crew may have to remove the computer from its securing devices for NMFS staff to reach these USB ports. This could create a burden on vessel crew when their time could be better spent readying the vessel for departure from port for the next fishing trip. Additionally, there currently is no requirement for USB ports on these computers.
2. Another alternative would be for NMFS staff to carry a portable CD drive which attaches to a serial port in the computer. Many older computers which do not have USB drives have serial ports which could be used for this purpose. However, in addition to the problems noted above, storage mediums which attach to serial ports create additional difficulties. Unlike many USB drives, a device which attaches to a serial port would require installation of a driver to support its function on the computer. Installation of a driver would reduce memory available for other functions and increase the time needed for installations, therefore increasing costs to the agency.
3. Many vessels and stationary floating processors subject to this proposed action attach communications equipment through serial ports. Disconnecting cables which connect a vessel's communications equipment to its computer could result in future problems with this equipment.

In sum, requiring a CD drive would ensure an unobtrusive, dedicated medium which could be used by NMFS staff to quickly and easily install OCS software. For these reasons, the options described above are considered infeasible and not analyzed further.

Other revisions to regulations

Regulations at § 679.50(i)(2)(vi)(A)(1) describe travel and logistics requirements for observer providers when deploying observers. During travel to their assignment, observers occasionally become separated from their personal belongings and gear necessary to conduct sampling duties for many reasons including incorrect routing of luggage or weight restrictions on airplanes. If this occurs, luggage normally will be delivered on a subsequent flight. However, an observer provider recently encouraged an observer who had become separated from personal belongings and gear necessary to conduct sampling duties to borrow personal belongings from other observers so the observer could be deployed in a timely manner. The observer was deployed to a vessel without the observer's personal belongings or gear necessary to conduct sampling duties. Such a failure compromises an observer's safety, comfort and ability to complete his or her duties. This action proposes to require an observer provider to provide all necessary transportation, including arrangements and logistics, to ensure the observer and his or her gear and personal belongings arrive at the initial location of deployment and to all subsequent vessel and shoreside or stationary floating processor assignments during that deployment.

Regulations at 50 CFR 679.2 contain definitions for terms used elsewhere in 50 CFR 679. Regulations at §679.50(c) describe observer coverage requirements for vessels engaged in directed fishing for groundfish. However, the first paragraph of the current definition of directed fishing is contained under the heading, "With respect to groundfish recordkeeping and reporting." NOAA General Counsel recently prosecuted an observer coverage violation where it was necessary to describe the linkage between this definition of directed fishing and observer coverage requirements. This proposed action would revise the heading of the first paragraph of the definition for directed fishing to read, "Unless otherwise indicated" to clarify that the definition also applies to observer coverage regulations.

Regulations at §679.28 describe requirements for scales, observer sampling stations, bins for volumetric estimates, and vessel monitoring system hardware. Section 679.28(g)(1) describes catch monitoring control plans (CMCPs) generally and §679.28(g)(4)(iii) describes a component of the inspection process for CMCPs. However, these sections incorrectly cross reference performance standards in §679.28(g)(6). This action proposes to correct this error and replace the reference to (g)(6) in § 679.28(g)(1) and (g)(4)(iii) with (g)(7).

1.5 Description of the alternatives

Alternative 1 (No action)

Alternative 1 is the **no action** alternative and would not change current requirements. This no action alternative is used as the **baseline** against which the other alternatives are compared. This **status quo** alternative would maintain current hardware and software specifications for all vessels, onshore plants, and stationary floating processors.

Alternative 2

Alternative 2 has three components:

- Regulations at §679.50(g)(1)(iii)(B)(1) and (g)(2)(iii)(B)(1) would be revised to require vessels and stationary and shoreside processors subject to OCS requirements to ensure the personal computer provided for use by the observer contains a minimum Windows 98 operating system

and a minimum of 256 megabytes of RAM.

- Regulations at at §679.50(i)(2)(vi)(A)(1) would be clarified to require observer providers to provide all necessary transportation, arrangements, and logistics for both the observer and his or her gear.
- Regulations at 50 CFR 679.2 and §679.28(g) would be revised to correct and clarify regulations affecting the observer program.

Alternative 3

Alternative 3 includes the provisions of Alternative 2, and, in addition, requires vessels, stationary floating processors, and onshore processors subject to OCS requirements to ensure the personal computer provided for use by the observer, contains a readable Compact Disc (CD) drive.

1.6 Description of fishery

Section 3.9.2 of the Alaska Groundfish Programmatic Supplemental Environmental Impact Statement (PSEIS) describes the harvesting and processing sectors of the Alaska groundfish fisheries (NMFS 2004).

Regulations at §679.5(d) require that shoreside groundfish processors have observers present whenever they receive or process groundfish, if they process an amount equal to or greater than 1,000 metric tons round-weight during a calendar month. The regulations require observer coverage on 30% of the days they receive or process groundfish if they process 500 to 1,000 metric tons during a calendar month. Other regulations provide special coverage requirements for CDQ and AFA fish. Tables 1a and 1b show the firms that met requirements for 100% and 30% observer coverage in 2004.

Table 1a Shoreside and stationary floating processors which met requirements for 100% observer coverage in 2004.

100% Observer Coverage Plants	Area
Adak Fisheries, LLC	Adak
Alaska Pacific Seafood	Kodiak
Alyeska Seafoods, Inc.	Dutch Harbor
Arctic Enterprise	N/A
Arctic Star	N/A
Bering Star	N/A
Discovery Star	N/A
Global Seafoods North America, LLC	Kodiak
Independence	N/A
Northern Victor	N/A
Ocean Beauty Seafoods, Inc.	Kodiak
Peter Pan Seafoods, Inc.	King Cove
Stellar Sea	N/A
Trident Seafoods Corporation	Akutan

Trident Seafoods Corporation	Sandpoint
Trident Seafoods Corporation	Kodiak
True World Foods-Alaka	Kodiak
Unisea, Inc.	Dutch Harbor
Western Alaska Fisheries, Inc.	Kodiak
Westward Seafoods, Inc.	Dutch Harbor
Note: N/A indicates stationary floating processor.	

Table 1b Shoreside and stationary floating processors which met requirements for 30% observer coverage in 2004.

30% Observer Coverage Plants	Area
Island Fish Co. LLC	Kodiak
Ocean Beauty Seafoods, Inc.	Seward
Trident Seafoods Corporation	St. Paul

Table 2 summarizes information about the numbers of fishing operations affected by the alternatives

Table 2 Numbers of operations by type and observer coverage levels, 2001-2002

Vessel/processor Type	Coverage Category	Gear type	Number	Subject to OCS Requirements?
Motherships	100%	N/A	3	Yes
Catcher/processors	100%**	HAL Fillet Trawler Surimi Trawler H&G Trawler	27 4 13 15	Yes
	30%	HAL H&G Trawler	10 7	Yes
Catcher vessels delivering to shoreside processors	100%	Trawl	25	Yes
	30%	HAL Trawl	42 104	No
All covered pot vessels*	30%	Pot catcher vessel	52	No
		Pot catcher/processor	7	Yes
Shoreside and stationary floating processors:	30% and 100%	N/A	25	Yes

Notes: Vessels: 100% coverage required for vessels ≥ 125 ft; 30% coverage required for vessels ≥ 60 ft and < 125 ft. Shoreside processors: 100% coverage required for processors that process ≥ 1000 mt/month of groundfish; 30% coverage required for processors that process ≥ 500 mt and < 1000 mt/month of groundfish. HAL includes longline, jig and troll gear

*Pot vessels ≥ 60 ft are required to have an observer present for 30% of the pots retrieved. OCS requirements apply to catcher/processor pot vessels.

** Management programs, such as AFA and CDQ, may require 2 or more observers.

Source: Economic Status of the Groundfish Fisheries off Alaska, 2003, Alaska Fisheries Science Center

Vessel operators must arrange for observer coverage through one of five observer provider companies. The preliminary draft of the EA/RIR/IRFA for an FMP amendment to restructure the observer program describes the observer provider companies as follows:

“Four observer provider companies are currently active in the North Pacific, reduced from six in 2000. The companies that are currently permitted by NMFS and actively providing observers in North Pacific groundfish fisheries are: Alaska Observers, Inc. (AOI); Northwest Observers, Inc. (NOW); Saltwater Observers, Inc. (SWI); and TechSea International (TSI). Of these, three are based in the Seattle area and one is based in Anchorage. The principal activity of all of these companies is providing observers for the North Pacific Groundfish Observer Program, but most of them also provide observers for other observer programs within or outside of Alaska, or are involved in other business activities. There are substantial differences among the observer providers in terms of both the proportion of their income generated by providing observers for the groundfish fishery and the proportion of total groundfish observer deployment days they provide. All of the observer provider companies are considered small entities.” (NPFMC, 2004, page 77).

In addition, on May 26, 2005, NMFS issued a permit to MRAG Americas, Inc. to provide observer services for groundfish fisheries in the North Pacific. MRAG Americas, Inc. is a subsidiary of MRAG Ltd., a company based in London, England and operates in many countries around the world. Additionally, MRAG has substantial experience providing observer services both in and outside the United States. Because of its affiliation with MRAG Ltd., MRAG Americas, Inc. is probably considered a large entity, although NMFS has no data on the number of people employed by the company.

1.7 Analysis of the alternatives

Alternatives 2 or 3 would improve NMFS management capabilities compared to Alternative 1. However, these alternatives will require upgrades and investments on the part of industry, may impose costs on industry, and may impose costs on the public sector. The costs and benefits are summarized below under the following headings:

- Benefits from the alternatives
- Changes in industry costs
- Changes in public management expenses
- Summary of costs and benefits

Benefits from the alternatives

The use of the OCS software has important advantages for fisheries management. These have been discussed at length in NMFS, 2002. See Section 1.4 of this RIR for a brief summary.

There are two parts to the OCS system: (1) an application written in the PowerBuilder Version 5.0 language, and (2) an “SQL Anywhere” database. Both of these products were produced by the Sybase Corporation, around 1997, and are no longer supported by Sybase.²

The rest of the Observer Program’s database system was created with tools from Oracle and uses an Oracle database. The Observer Program system was built with the same tools, and uses many of the same

² Reference to trade names does not imply endorsement by the National Marine Fishery Service, NOAA.

technologies, as the database system used by the Alaska Region's Sustainable Fisheries Division.

The Observer Program is currently developing a new application in JAVA with Oracle's tools and planning to replace the current "SQL Anywhere" database with an "Oracle Lite" database. This is being done to bring the OCS application\database in line with the rest of the NMFS system and thereby make it easier to maintain OCS in the coming years.

Currently, only one of the Observer Program's three developers is familiar with the Sybase tools and technology. The Sybase tools and technology used to create the original OCS are now obsolete, and it has become necessary to re-create OCS using more modern tools and technologies. The Observer Program made a strategic decision to move away from the Sybase tools and towards Oracle tools. The Oracle Lite database also offers new possibilities for moving the data from the individual databases aboard each fishing vessel to NOAA Fisheries' central database in Seattle.³

NMFS has determined that the new OCS software currently under development by the Observer Program would not function under current hardware requirements for the OCS. If the proposed rule upgrading these requirements to the new minimum standards was not adopted, NMFS would not be able to install the new software on some vessels or shoreside or stationary floating processors. This would threaten a significant decline in the amount and quality of data available to fisheries managers, which could result in conservation concerns and constrain NMFS' ability to manage these fisheries under current processes. Additionally, as the Council moves towards proposed rationalization programs where fisheries would be managed at the vessel or co-op level, the data required to support these programs would be unavailable at an adequate resolution.

It might be possible to acquire staff with experience with Sybase. However, the current software is no longer supported by Sybase and would likely have to be upgraded, resulting in increased minimum OCS hardware standards under this scenario. Hiring additional staff to develop and maintain a Sybase system would also represent a significant increase in cost to the agency. For these reasons, these options are considered infeasible and not analyzed further.

Alternative 3 adds a requirement that operations subject to OCS requirements ensure that they provide computers with readable CD drives. The availability of readable CD drives will reduce the time required for installation, maintenance, and upgrades of OCS software on the computer. Observer Program staff have serious reservations about the practicality of Alternative 2 alone. While the software and hardware upgrade components are necessary for upgrading the NMFS software on all vessels currently subject to OCS requirements, staff feels a readable CD drive is also necessary. As the NMFS software increases in size and complexity, installation and maintenance of the software component of the OCS could be seriously hampered by those vessels' personal computers which only have floppy drives. It is estimated the software would require fourteen 1.44 megabyte floppy disks. It is also the case that CD drives are estimated to be as much as 100 times faster than floppy drives.

In addition to the changes to OCS program requirements, Alternatives 2 and 3 clarify other observer regulations. These changes are made here, to avoid redundancy in multiple rulemakings. These proposed changes are described above in Section 1.4. Their benefits are described below.

³ Personal communication 2-24-05. Brown, Mike. IT Specialist. National Marine Fisheries Service. Alaska Fisheries Science Center. PO Box 15700. 7600 Sand Point Way NE, Building 4. Seattle, Washington 98115. mike.a.brown@noaa.gov. 206.526.4329

Regulatory amendments at §679.2 and §679.28 described above are administrative in nature and designed to clarify existing regulations. Nothing in these amendments would change the purpose or intent of the regulation. Rather, they would assist vessels and shoreside and stationary floating processors subject to these regulations in understanding coverage and CMCP requirements. Additionally, NMFS enforcement and NOAA General Counsel would be able to clearly articulate enforcement and prosecution actions.

Proposed regulatory amendments at §679.50(i)(2)(vi)(A)(1) are intended to eliminate situations where an observer is forced to travel without his or her sampling equipment and personal belongings, and then pressured to deploy on a vessel or at a shoreside or stationary floating processor with borrowed gear and essentials. Benefits to this regulatory amendment would include: 1) increased confidence that the sampling gear and equipment needed to allow observers to complete sampling and other duties would be present; and 2) increased confidence that the safety gear and personal belongings needed for observer safety and comfort would be present.

Changes in industry costs

Alternatives 2 and 3 could require fishing and processing operations to invest in computer and communications systems upgrades, although some may already have these capabilities in place.. Table 3 shows the number of computers on which NMFS has installed OCS software as of January 2005. Note that these numbers are slightly different than those in Table 2. Vessel and processor activity changes from year to year and Table 3 shows the latest number of active vessels and shoreside and stationary and floating processors available from the observer program which have computers for use by an observer, as required by OCS regulations.

Table 3. Computers on vessels and at processors which have NMFS software, January 2005

Vessel/Processor Type	Number of computers
Catcher/Processors	82
Catcher vessels	27
Motherships	3
Shoreside and stationary floating processors	23
Total	135
Sources: North Pacific Groundfish Observer Program, Alaska Fisheries Science Center and AKFIN Database	

Estimated upgrades and costs for (1) catcher/processors and motherships, (2) shoreside and stationary floating processors, and (3) catcher vessels with 100% observer requirements, are as follows (estimates are based on upgrade requirements and prices supplied by the NMFS Observer Program; the costs below do not take account of installation or consulting services that may be required by vessel operators):

1. *Catcher/processors:* An estimated eight vessels would be required to upgrade their operating systems. Current market prices for Windows XP (the current version of Windows) operating system are estimated at \$199. There are alternative versions of Windows that meet the specified requirements of this action, but which may be lower cost. The Observer Program estimates 85% of the computers provided for use by an observer would need to upgrade to 256 megabytes of RAM. Of the 82 catcher/processors required to comply with OCS requirements, an estimated 70 would be required to upgrade their computers to 256 megabytes of RAM, which is estimated to cost less than \$150. For Alternative 3, the Observer Program estimates 50% of the computers provided for use by an observer would need to install a readable CD drive. Of the 82

catcher/processors required to comply with OCS requirements, an estimated 41 would be required to upgrade their computers with a readable CD drive, estimated at \$150.

2. *Shoreside and stationary floating processors:* An estimated two shoreside and stationary floating processors would be required to upgrade their operating systems. Current market prices for Windows XP (the current version of Windows) operating system are estimated at \$199. The Observer Program estimates 85% of the computers provided for use by an observer would need to upgrade to 256 megabytes of RAM. Of the 23 shoreside and stationary floating processors required to comply with OCS requirements, an estimated 20 would be required to upgrade their computers to 256 megabytes of RAM, which is estimated to cost less than \$150. For Alternative 3, the Observer Program estimates 50% of the computers provided for use by an observer would need to install a readable CD drive. Of the 23 shoreside and stationary floating processors required to comply with OCS requirements, an estimated 12 would be required to upgrade their computers with a readable CD drive, estimated at \$150.
3. *Catcher vessels:* An estimated three catcher vessels would be required to upgrade their operating systems. Current market prices for Windows XP (the current version of Windows) operating system are estimated at \$199. The Observer Program estimates that 85% of the computers provided for use by an observer would need to upgrade to 256 megabytes of RAM. Of the 27 catcher vessels required to comply with OCS requirements, an estimated 23 would be required to upgrade their computers to 256 megabytes of RAM, which is estimated to cost less than \$150. For Alternative 3, the Observer Program estimates 50% of the computers provided for use by an observer would need to install a readable CD drive. Of the 27 catcher vessels required to comply with OCS requirements, an estimated 14 would be required to upgrade their computers with a readable CD drive, estimated at \$150.
4. *Motherships:* No motherships are expected to be required to upgrade their computer hardware provided for use by an observer.

Table 4 Aggregate costs of upgrading computers under Alternative 2

Industry segment	Number requiring operating system upgrade (at \$199)	Number requiring RAM upgrade (at \$150)	Total cost for industry segment (<i>rounded to nearest '000</i>)	Average cost for industry segment
Catcher/processors	8	70	12,000	147
Shoreside and stationary floating processors	2	20	3,000	148
Catcher vessels (100% observer coverage)	3	23	4,000	150
Total			19,000	
Note: Entity counts used to calculate average cost come from Table 3.				

Table 5 Aggregate costs of upgrading computers under Alternative 3

Industry segment	Cost of Alternative 2 upgrades	Number requiring readable CD drive upgrade under Alt 3 (at \$150)	Total cost for industry segment <i>(rounded to nearest '000)</i>	Average cost for industry segment
Catcher/processors	\$12,092	41	\$18,000	222
Shoreside and stationary floating processors	3,398	12	5,000	226
Catcher vessels (100% observer coverage)	4,047	14	6,000	228
Total			29,000	
Note: Entity counts used to calculate average cost come from Table 3; cost of Alternative 2 upgrades come from Table 4.				

Examination of Tables 4 and 5 shows that the upper-bound, aggregate costs for computer hardware associated with the respective alternatives are:

- \$0 for Alternative 1
- \$19,000 for Alternative 2
- \$29,000 for Alternative 3

The table shows that the average costs of an upgrade for a vessel or processing plant would be about \$225. The average is calculated for all the vessels with OCS software, including vessels that will not require any upgrade. This average may give a misleading impression of the typical experience of a vessel that has to upgrade, if the need to upgrade on one of the three elements (operating system, memory, CD) is correlated with the need to upgrade on the others. A vessel that needed all three upgrades could incur costs of about \$500.

The regulatory change to require observers to be deployed with their gear and personal belongings may create small costs for industry. While regulations would require the observer provider to be responsible for transportation, logistics, and arrangements, observer providers typically pass these costs on to the vessel or processor. However, arrangements (and subsequent division of costs) between carriers and observer providers, where the observer is separated from his or her gear and personal belongings, are not known. Additionally, vessels may be required to remain in port until an observer's gear and personal belongings arrive and the vessel may incur costs associated with missed fishing opportunity.

Instances where observers have not been deployed with his or her gear and personal belongings are rare, and the frequency of these occurrences is impossible to estimate. Therefore, costs to the industry cannot be estimated, but are expected to be small.

Clarifying the definition of "directed fishing," and correcting a cross reference in regulations describing requirements for CMCPs, are administrative in nature. Affected entities would not be expected to incur any costs as a result of these proposed changes.

Changes in public management expenses

The Observer Program does not expect to devote significant additional technical resources to upgrades for

the catcher/processors, motherships, onshore plants, and stationary floating processors, or catcher vessels with 100% observer coverage. Additional support costs for these efforts have been estimated at zero, under all alternatives. However, the hardware and software upgrades proposed in this action are intended to facilitate installation of an upgraded NMFS software component for the OCS. Installation of this software would require Observer Program staff in Seattle and Dutch Harbor to install and troubleshoot this software.

The Observer Program expects that installation of this software will require about 9 weeks of the time of a GS-11 employee, and two additional trips between Seattle and Dutch Harbor. Costs for continued software maintenance and support are not expected to increase. Agency costs related to this action are estimated at \$13,000 for the GS-11, and \$6,000 for travel associated with installation of the software. The total is \$19,000. Since the software cannot be installed without the computer upgrades under Alternatives 2 and 3, these expenses for installation are contingent on the adoption of the rule. These costs are therefore treated here as a potential cost of this action. However, as noted above, NMFS does not have the ability to maintain the current OCS software and the new OCS software would not work under the current hardware requirements. The resulting decline in data quality and availability on vessels which do not meet these minimum standards would result in significant costs associated with conservation concerns and the ability of NMFS to manage fisheries.

Summary of costs and benefits

Table 6, below, summarizes the benefits and costs of the different alternatives. Due to the difficulties with estimation, the benefit estimates are qualitative. Costs have been monetized to a greater degree.

As noted in the section on costs, there are a few sources of uncertainty about the cost estimates. Chief among these: (1) there are potential overestimates of the costs of upgrading hardware, if large numbers of operations already have the equipment; (2) the average costs of upgrading equipment may be overestimated, further biasing the cost estimates upward; (3) instances where observers have not been deployed with their gear and personal belongings are rare, and the frequency of these occurrences is impossible to estimate; (4) arrangements between carriers and observer providers, where the observer is separated from his or her gear and personal belongings, are not known; and (5) the Observer Program is only able to estimate the percentage of vessels which would need to upgrade RAM and install a readable CD drive.

Table 6 Summary of the Benefits and Costs of the Alternatives

Cost/Benefit Category	Alternative 1 Status Quo	Alternative 2 1) basic computer upgrade; 2) observer providers would be required to deploy observers with their gear; and 3) other non-substantive, administrative changes.	Alternative 3 (preferred alternative) Provisions of Alternative 2, plus requirement for computer CD drive
Maintenance and development of OCS software	This is the baseline. All comparisons for other alternatives are described as changes from this alternative. If this	This alternative would allow NMFS to replace obsolete OCS software, facilitating NMFS' access to timely, more accurate	This alternative would provide all the benefits listed for Alternative 2. The additional requirement for a readable CD would

	alternative is adopted, anticipate that many of the vessels without modern computing systems will gradually upgrade their computing capabilities. An unknown number may not. Software would not be installed on computers which do not meet minimum standards, creating conservation and management concerns.	catch and bycatch data, which are critical to its effective inseason management, monitoring, and enforcement obligations.	increase installation speeds and provide a more durable, efficient storage medium. Data, critical to NMFS' mission, would be better protected, more readily accessible, and more efficiently entered and integrated into management databases.
Clearer regulations concerning deployment of observers and gear	No problems with gear would occur in most situations. There could continue to be rare problems, under retention of the status quo.	This alternative would provide clearer, more enforceable regulations. In addition, the presence of observer sampling gear and equipment would provide an increased ability for observers to complete sampling and other duties. Assurance of access to safety gear and personal belongings would increase observer safety, efficiency, and comfort.	This alternative would provide all the benefits of Alternative 2.
Industry upgrade and investment	No additional cost	Maximum of \$19,537 for installation on all operations. Average upgrade costs for fleet would be about \$150 per vessel. Cost to a vessel that needed to upgrade both components would be \$350.	Maximum of \$29,587 for installation on all operations; reduced costs associated with installation of OCS upgrade. Average upgrade costs for fleet would be about \$225 per vessel. Cost to a vessel that needed all three upgrades would be about \$500.
Public sector expenditures	No additional expenditures. However, software would not be installed on computers which do not meet minimum standards, creating conservation and management concerns.	\$18,000 for installation, contingent on adoption of the rule.	\$18,000 for installation, contingent on adoption of the rule.

1.8 Summary of significance criteria

A "significant regulatory action" under E.O. 12866 means any action that is likely to result in a rule that may:

- 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, the environment,

- public health or safety, or State, local, or tribal governments or communities;
- Create a serious inconsistency or otherwise interfere with an action taken or planned by another agency;
- Materially alter the budgetary impact of entitlements, grants, user fees, or loan programs or the rights and obligations of recipients thereof; or
- Raise novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in the executive order.

The overall installation costs faced by industry appear to be on the order of tens of thousands of dollars, and would be a "one time" outlay, not an annually recurring cost. The hardware and software costs were estimated to be about \$30,000, under the most expensive alternative. Consulting and time, particularly for installation of additional RAM or for an upgrade to Windows, could add slightly to these expenditure totals. However, any plausible estimate of total costs will be far below the specified \$100 million annual effect threshold. Thus, none of the proposals would impose annual costs of \$100 million on the U.S. economy. These alternatives do not appear to "adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local, or tribal governments or communities..."

NMFS has not identified any factors that would (a) "Create a serious inconsistency or otherwise interfere with an action taken or planned by another agency"; (b) "Materially alter the budgetary impact of entitlements, grants, user fees, or loan programs or the rights and obligations of recipients thereof"; or (c) "Raise novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in the executive order."

2.0 Initial Regulatory Flexibility Analysis (IRFA)

2.1 What is the Regulatory Flexibility Act?

The Regulatory Flexibility Act (RFA), first enacted in 1980, was designed to place the burden on the government to review all regulations to ensure that, while accomplishing their intended purposes, they do not unduly inhibit the ability of small entities to compete. The RFA recognizes that the size of a business, unit of government, or nonprofit organization frequently has a bearing on its ability to comply with a Federal regulation. Major goals of the RFA are: (1) to increase agency awareness and understanding of the impact of their regulations on small business, (2) to require that agencies communicate and explain their findings to the public, and (3) to encourage agencies to use flexibility and to provide regulatory relief to small entities. The RFA emphasizes predicting impacts on small entities as a group, distinct from other entities, and on the consideration of alternatives that may minimize the impacts while still achieving the stated objective of the action.

On March 29, 1996, President Clinton signed the Small Business Regulatory Enforcement Fairness Act. Among other things, the new law amended the RFA to allow judicial review of an agency's compliance with the RFA. The 1996 amendments also updated the requirements for a final regulatory flexibility analysis, including a description of the steps an agency must take to minimize the significant economic impact on small entities. Finally, the 1996 amendments expanded the authority of the Chief Counsel for Advocacy of the Small Business Administration (SBA) to file *amicus* briefs in court proceedings involving an agency's violation of the RFA.

In determining the scope, or 'universe', of the entities to be considered in an IRFA, NMFS generally

includes only those entities, both large and small, that can reasonably be expected to be directly regulated by the proposed action. If the effects of the rule fall primarily on a distinct segment, or portion thereof, of the industry (e.g., user group, gear type, geographic area), that segment would be considered the universe for the purpose of this analysis. NMFS interprets the intent of the RFA to address negative economic impacts, not beneficial impacts, and thus such a focus exists in analyses that are designed to address RFA compliance.

Data on cost structure, affiliation, and operational procedures and strategies in the fishing sectors subject to the proposed regulatory action are insufficient, at present, to permit preparation of a “factual basis” upon which to certify that the preferred alternative does not have the potential to result in “significant adverse impacts on a substantial number of small entities” (as those terms are defined under RFA). Because, based on all available information, it is not possible to ‘certify’ this outcome, should the proposed action be adopted, a formal IRFA, focusing on the complete range of available alternatives (including the designated “preferred” alternative), has been prepared and is included in this package for Secretarial review.

2.2 IRFA Requirements

Under 5 U.S.C., Section 603(b) of the RFA, each IRFA is required to contain:

- A description of the reasons why action by the agency is being considered;
- A succinct statement of the objectives of, and the legal basis for, the proposed rule;
- A description of and, where feasible, an estimate of the number of small entities to which the proposed rule will apply (including a profile of the industry divided into industry segments, if appropriate);
- A description of the projected reporting, record keeping and other compliance requirements of the proposed rule, including an estimate of the classes of small entities that will be subject to the requirement and the type of professional skills necessary for preparation of the report or record;
- An identification, to the extent practicable, of all relevant Federal rules that may duplicate, overlap or conflict with the proposed rule;
- A description of any significant alternatives to the proposed rule that accomplish the stated objectives of the proposed action, consistent with applicable statutes, and that would minimize any significant economic impact of the proposed rule on small entities. Consistent with the stated objectives of applicable statutes, the analysis shall discuss significant alternatives, such as:
 1. The establishment of differing compliance or reporting requirements or timetables that take into account the resources available to small entities;
 2. The clarification, consolidation, or simplification of compliance and reporting requirements under the rule for such small entities;
 3. The use of performance rather than design standards;
 4. An exemption from coverage of the rule, or any part thereof, for such small entities.

2.3 What is a Small Entity?

The RFA recognizes and defines three kinds of small entities: (1) small businesses, (2) small non-profit organizations, and (3) small government jurisdictions.

Small businesses. Section 601(3) of the RFA defines a “small business” as having the same meaning as

“small business concern” which is defined under Section 3 of the Small Business Act. “Small business” or “small business concern” includes any firm that is independently owned and operated and not dominant in its field of operation. The SBA has further defined a “small business concern” as one “organized for profit, with a place of business located in the United States, and which operates primarily within the United States or which makes a significant contribution to the U.S. economy through payment of taxes or use of American products, materials or labor. A small business concern may be in the legal form of an individual proprietorship, partnership, limited liability company, corporation, joint venture, association, trust or cooperative, except that where the firm is a joint venture there can be no more than 49 percent participation by foreign business entities in the joint venture.”

The SBA has established size criteria for all major industry sectors in the US, including fish harvesting and fish processing businesses. A business involved in fish harvesting is a small business if it is independently owned and operated and not dominant in its field of operation (including its affiliates) and if it has combined annual receipts not in excess of \$3.5 million for all its affiliated operations worldwide. A seafood processor is a small business if it is independently owned and operated, not dominant in its field of operation, and employs 500 or fewer persons on a full-time, part-time, temporary, or other basis, at all its affiliated operations worldwide. A business involved in both the harvesting and processing of seafood products is a small business if it meets the \$3.5 million criterion for fish harvesting operations.

Observer providers in North Pacific groundfish fisheries are approved by NMFS and provide observer services directly to vessels and processors. Their activities and responsibilities are regulated by NMFS. According to published SBA definitions and small entity criterion, employment placement agencies with combined annual receipts less than \$6 million, and temporary help services with combined annual receipts less than \$11.5 million are considered small. These definitions most closely match observer provider operations, and SBA small business standards for these businesses are used to determine whether observer providers would be considered small for purposes of the RFA.

The SBA has established “principles of affiliation” to determine whether a business concern is “independently owned and operated.” In general, business concerns are affiliates of each other when one concern controls or has the power to control the other or a third party controls or has the power to control both. The SBA considers factors such as ownership, management, previous relationships with or ties to another concern, and contractual relationships, in determining whether affiliation exists. Individuals or firms that have identical or substantially identical business or economic interests, such as family members, persons with common investments, or firms that are economically dependent through contractual or other relationships, are treated as one party with such interests aggregated when measuring the size of the concern in question. The SBA counts the receipts or employees of the concern whose size is at issue and those of all its domestic and foreign affiliates, regardless of whether the affiliates are organized for profit, in determining the concern’s size. However, business concerns owned and controlled by Indian Tribes, Alaska Regional or Village Corporations organized pursuant to the Alaska Native Claims Settlement Act (43 U.S.C. 1601), Native Hawaiian Organizations, or Community Development Corporations authorized by 42 U.S.C. 9805 are not considered affiliates of such entities, or with other concerns owned by these entities solely because of their common ownership.

Affiliation may be based on stock ownership when (1) A person is an affiliate of a concern if the person owns or controls, or has the power to control 50% or more of its voting stock, or a block of stock which affords control because it is large compared to other outstanding blocks of stock, or (2) If two or more persons each owns, controls or has the power to control less than 50% of the voting stock of a concern, with minority holdings that are equal or approximately equal in size, but the aggregate of these minority

holdings is large as compared with any other stock holding, each such person is presumed to be an affiliate of the concern.

Affiliation may be based on common management or joint venture arrangements. Affiliation arises where one or more officers, directors or general partners control the board of directors and/or the management of another concern. Parties to a joint venture also may be affiliates. A contractor and subcontractor are treated as joint venturers if the ostensible subcontractor will perform primary and vital requirements of a contract or if the prime contractor is unusually reliant upon the ostensible subcontractor. All requirements of the contract are considered in reviewing such relationship, including contract management, technical responsibilities, and the percentage of subcontracted work.

Small organizations The RFA defines “small organizations” as any not-for-profit enterprise that is independently owned and operated and is not dominant in its field.

Small governmental jurisdictions The RFA defines small governmental jurisdictions as governments of cities, counties, towns, townships, villages, school districts, or special districts with populations of fewer than 50,000.

2.4 Reason for Considering the Proposed Action

Timely and accurate data from observers on fishing vessels plays an important role in in-season management of fisheries, as well as the monitoring, and enforcement of fisheries regulations. This action is being considered to improve the timeliness and accuracy of data received from observers on fishing vessels, and those in fish processing plants. Additionally, there are several clarifications and corrections to the current regulations governing the observer program, proposed under this action. A more complete discussion of the purpose of this proposed action can be found in Section 1.4 of the RIR.

2.5 Objectives of, and legal basis for, the proposed action

The objectives of this action are to: (1) promote the adoption of computer hardware that will allow the replacement of obsolete OCS software, and will thus allow the ongoing development and maintenance of the OCS system for observer communication, whether at-sea, or while serving at inshore processing facilities; (2) facilitate the installation of this software; (3) clarify regulations to emphasize that observer providers are required to provide all necessary transportation for the observer and his or her gear; and (4) to correct an erroneous cross-reference in regulations.

This action is proposed under the authority of the Magnuson-Stevens Act. For more details, refer to Section 1.3 of the RIR.

2.6 Number and description of small entities directly regulated by the proposed action

As noted (in Section 2.3), fishing operations grossing \$3.5 million or less are considered to be small entities for the purposes of the RFA. Data available for 2003 indicate that 22 of the 82 catcher/processors active in the groundfish fisheries that year would be considered small entities (AKFIN 2004).

As noted in the RIR, there are five observer provider companies, and all are considered small. Estimates of revenues accruing to individual observer providers are unavailable. However, the total cost of the observer coverage to fishing operations has been estimated to average about \$11.6 million dollars per

year for the period 2000-2002. (NPFMC, 2004, Table 4.4.1, page 90), and it is likely that no single observer provider entity has annual combined gross receipts in excess of either the \$11.5 or \$6 million standard described above.

Confidentiality restrictions require NMFS to report gross revenue information in aggregations of four or more entities. Due to these restrictions NMFS is unable to report gross revenues for catcher vessels considered small entities that would be regulated under this action. All of the motherships were assumed to be large entities. The numbers of large and small shoreside processors were estimated on the basis of information from NMFS staff familiar with the industry. All AFA vessels are considered to be large entities due to their affiliation with entities which, collectively, have gross revenues over \$3.5 million. Table 7 shows the estimated number of small entities subject to OCS requirements.

Table 7 Estimated numbers of small entities directly regulated by change in OCS requirements, 2003

Fleet segment	Number small	Number large	Total
Catcher vessels	≤ 4	≥ 23	27
Shoreside processors	≤ 4	≥ 19	23
Catcher/processors	22	60	82
Motherships	0	3	3
Observer providers	5	0	5
Notes: RFA analysis data set.xls, AKFIN, 2004; confidentiality restrictions preclude reporting the number of small catcher vessels and shoreside processors			

Section 3.9.2 of the Alaska Groundfish Programmatic Supplemental Environmental Impact Statement (PSEIS) describes the harvesting and processing sectors of the Alaska groundfish fisheries (NMFS 2004).

Confidentiality rules preclude reporting gross revenues information for the small catcher vessels and small processing firms. The small catcher-processors grossed an average of about \$2.19 million in 2003. (AKFIN, 2004)

2.7 Adverse Economic Impacts on Directly Regulated Small Entities

This section summarizes what is known about the potential adverse impacts of the proposal on directly regulated small entities. Unfortunately, while it is possible to make estimates of operation gross revenues using state and federal data routinely collected from fishing operations and fish processing operations, there is almost no information available on the operating costs of these operations. It has therefore been necessary to conduct this analysis by relating the costs of the proposals to the average gross revenues of the different classes of operations, rather than to their net revenues, which would be the theoretically correct (and most desirable) approach.

Catcher-processors

Of the 82 catcher/processors affected by this action, twenty-two are believed to be small entities.

Estimated first wholesale gross revenues for catcher/processors in 2003 were obtained from the AKFIN database (AKFIN 2004). Average gross revenues for the small entities (those with less than \$3.5 million in gross revenues) were about \$2.19 million in 2003. All alternatives except the status quo (Alt. 1) would involve additional costs for this group. The one-time upgrade cost for (assuming Windows, memory, and CD upgrades were all required) was about \$500. The upgrade and investment costs for the 22 catcher/processors considered small entities thus came to about 0.02% of one year's gross revenues for a small entity.

Catcher-vessels

Catcher vessels greater than or equal to 125 feet (except for pot vessels) are required to have 100% observer coverage, are currently required to have OCS capability, and would be subject to upgrades under Alternatives 2 and 3. All AFA vessels are considered to be large entities due to their affiliations with AFA cooperatives, which have aggregate gross revenues over \$3.5 million.

As noted above, confidentiality restrictions require NMFS to report gross revenue information in aggregations of four or more entities. Due to these restrictions, NMFS is unable to report gross revenues for small entities that would be regulated under this action, or estimate the number of small entities as defined under the RFA. In the absence of data for the specific fleet under consideration, 2003 data on catcher vessels grossing less than \$3.5 million from groundfish fisheries in Federally managed waters off of Alaska were used. This class of vessels grossed an average of \$260,000. (Economic SAFE, 2003, page 64) As noted, estimated upgrade costs for a vessel requiring all hardware and software upgrades was \$500. This is 0.2% of the reported annual gross revenues.

This percentage is undoubtedly high. First, the denominator, groundfish gross revenues, does not include gross revenues from Federally managed non-groundfish fisheries, or from state managed fisheries. It is thus smaller than appropriate for the calculation of the percentage. Second, observer requirements are heavier for larger vessels, which are likely to have larger gross revenues than smaller vessels. However, the average gross revenues used include gross revenues from smaller vessels that would not be required to have the observer coverage, or undertake the upgrades. This would also tend to make the denominator lower than would be appropriate, and exaggerate the impact of the upgrade requirement.

Shoreside and stationary floating processors

All shoreside and stationary floating processors which are required by regulation to have an observer present at any time are also required to meet OCS requirements. Lists of the shoreside processors with 100% and with 30% observer coverage requirements may be found in Tables 1a and 1b in Section 1.2.1 of the RIR. All AFA shoreside and stationary floating processors are considered to be large entities due to their affiliation with entities which are estimated to have over 500 employees.

As noted above, confidentiality restrictions require NMFS to report gross revenue information in aggregations of four or more entities. Due to these restrictions, NMFS is unable to report gross revenues for small entities that would be regulated under this action or estimate the number of small entities as defined under the RFA. As noted, the upgrade and investment costs for each entity in this class requiring a full upgrade were estimated to be \$500.

Observer provider companies

Observer provider companies would be responsible for ensuring that observers are deployed with their gear and personal belongings. While regulations would require the observer provider to be responsible for transportation, logistics, and arrangements, observer providers typically pass these costs on to the vessel or processor to whom they are supplying the observer. However, any arrangements (and subsequent costs) between carriers and observer providers, where the observer is separated from his or her gear and personal belongings, are not known. Additionally, vessels may be required to remain in port until an observer's gear and personal belongings arrive and the vessel may incur costs associated with missed fishing opportunity. Instances where observers have not been deployed with their gear and personal belongings are rare, and the frequency of these occurrences is impossible to estimate. These costs are expected to be small, and to be primarily passed on to the firms operating fishing vessels and to shoreside plants.

Can fishing vessels and processing firms pass on costs?

As noted, observer providers are likely to be able to pass on any costs associated with requirements to deliver observers with their personal and professional gear to fishing and processing entities. Since it is rare for an observer to be separated from needed gear, these costs are expected to be small.

It is not clear whether the small fishing and processing entities that are subject to this regulation will be able to pass on significant parts of the costs associated with this rule to their respective customers. Their ability to pass the costs on will increase, the less responsive quantity demanded is to price, and the more responsive quantity supplied is to price.⁴ Because their markets are presumed to be relatively responsive to price (given the availability of substitutes, including supplies of groundfish from vessels not covered by the program), it doesn't seem likely that they will be able to pass a significant part of any attributable cost of this element of the preferred alternative to their buyers. Without better information on the groundfish markets, however, it is impossible to make a firm statement on this issue.

It is also possible that some costs may be borne by parties supplying inputs to the fishing businesses. Crews are often paid a share of operation gross revenues, net of variable operating costs (such as food, fuel, gear repairs). Observer coverage, which varies with time at sea, may be treated as a variable cost and could be shared, at least in part, with crew members. The information to test these conjectures and estimate potential "pass-ons" is not, however, available to analysts at this time.

2.8 Recordkeeping and reporting requirements

Although the proposed changes in the OCS communications requirements impose some new costs on small entities, they contain no new or revised record keeping or reporting requirements for those entities. The OCS requirements will not affect private sector record keeping requirements. However, they will facilitate communication of reports that are already required from observers.

2.9 Relevant Federal rules that may duplicate, overlap, or conflict with proposed action

This analysis did not reveal any federal rules that duplicate, overlap or conflict with the proposed action.

⁴In technical terms, their ability to pass on costs will depend on the elasticities of product supply and demand.

2.10 Description of significant alternatives

Detailed descriptions of the alternatives may be found in Section 1.4 of the RIR, and analyses may be found in Section 1.6. These descriptions and analyses are included here by reference.

These alternatives reflect decisions, already incorporated into the Observer Program, to minimize the burden on small entities. Catcher vessels under 60 feet LOA, which include the greatest numbers of small entities as defined by SBA criteria, are exempted from the Observer Program itself. There were 740 of these vessels fishing hook and line, pot, and trawl gear in 2003 (Hiatt *et al*, 2004). The exclusion of this large fleet of fishing vessels from the observer program has meant the sacrifice of information that would have been useful for fisheries management. The exclusion has been motivated in large part by recognition that there are unique difficulties associated with placing observers on some of these small vessels and that requiring these small entities to participate in this program may have placed an unreasonable and disproportional economic and operational burden on them.

Two of the alternatives considered would have involved smaller impacts on small entities than those associated with the preferred alternative. Alternatives 1 and 2 would impose fewer costs than the preferred alternative. The requirements in Alternative 2 would be to upgrade the computer provided for use by the observer to a minimum Windows 98 operating system and 256 megabytes of RAM. Alternative three would require each computer provided for use by the observer to contain a readable CD drive. However, this proposed action is considered to impose minimal costs, relative to revenues. Both long run and short run factors influence these conclusions. In the longer term, better resource management would be expected to sustain or improve productivity of the managed resources, increasing the net benefits to all parties of interest (e.g., harvesters, processors, secondary service and product suppliers to the directly regulated entities, intermediate and final consumers. In the immediate term, better and more timely data will allow in-season managers to optimize catch, by avoiding premature closures, etc. This will enhance gross revenues to the fleet. Differences between Alternative 2 and 3 are estimated at only \$150 per operation, on average.

Improvements in: (1) stock management; (2) bycatch monitoring and control; and (3) harvest optimization, as described above, will likely result in a net benefit to the Nation, attributable to adoption of the preferred alternative, as compared to retention of the status quo, although a numerical estimate of the size of the net gain is not presently possible.

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