

MEMORANDUM

TO: Council, SSC and AP Members

FROM: Clarence G. Pautzke
Executive Director



DATE: November 29, 1990

SUBJECT: General Groundfish

ACTION REQUIRED

Review proposed incentive program for 1991 to reduce prohibited species bycatch rates.

BACKGROUND

The Secretary of Commerce disapproved that portion of Amendment 16/21 establishing a vessel incentive program to reduce prohibited species bycatch rates in the groundfish fisheries. The reasons for this disapproval are outlined in the letter attached as Item D-1(a)(1). In anticipation of this disapproval, the Council prepared a revised incentive program based upon civil penalties to be imposed on those vessels whose bycatch rates of prohibited species exceed published standards. The Council approved this incentive program during a conference call on November 15. The amendment was submitted to the Secretary of Commerce for review and approval on November 28. The final EA/RIR/IRFA document for this revised incentive program is attached as Item D-1(a)(2). The proposed implementing regulations are attached as Item D-1(a)(3). The Council may wish to review and comment further on this incentive program. Emergency action also may be desirable to have the program implemented early in 1991.



UNITED STATES DEPARTMENT
National Oceanic and Atmospheric
National Marine Fisheries Service
P.O. Box 21668
Juneau, Alaska 99802-1668

November 9, 1990

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Don W. Collinsworth,
Chairman
North Pacific Fishery Management Council
P.O. Box 103136
Anchorage, AK 99510

Dear Don:

This letter is to notify you of my decision to partially disapprove Amendments 16 and 21 to the Fishery Management Plans for the Groundfish Fishery of the Bering Sea and Aleutian Islands Area (BSAI) and Groundfish of the Gulf of Alaska (GOA), respectively. The North Pacific Fishery Management Council (Council) adopted these amendments at its June 20-23, 1990, meeting. I am disapproving the measure in both amendments that would have established a vessel incentive program intended to reduce bycatch rates of prohibited species in the groundfish fisheries off Alaska through inseason vessel suspensions. Reasons for my disapproval and recommendations for actions that could be taken by the Council for resubmitting a vessel incentive program are discussed below. Some of these were also contained in my September 21, 1990, letter to the Council.

The approved parts in these amendments accomplish the following:

- (1) Prohibited species catch (PSC) limits and bycatch limitations zones for Pacific halibut, Tanner crab Chionoecetes bairdi, and red king crab in the BSAI, which are applicable only to trawl fisheries, are established;
- (2) Apportionments of PSC limits in the BSAI listed for the above species into bycatch allowances to DAP and JVP trawl fisheries, subject to review and revision by the Secretary of Commerce, after consultation with the Council, are authorized. For the 1991 fishing year, fishery categories are: DAP trawl fisheries for turbot, rock sole, flatfish, and all others combined; and the JVP trawl flatfish fishery.
- (3) In the GOA, apportionments of separate halibut PSC to hook-and-line and pot gear are authorized.
- (4) Seasonal allocations of Pacific halibut in the GOA and Pacific halibut, Tanner crab, and red king crab in the BSAI are authorized;



(5) Procedures for interim TAC specifications in both the BSAI and GOA are established;

(6) Fishing gear restrictions in both the BSAI and GOA are implemented, including a new definition of a pelagic trawl and requirements for biodegradable panels and halibut exclusion devices on groundfish pots;

(7) Management by the State of Alaska of the demersal shelf rockfish with Council oversight in the Eastern Regulatory Area is authorized; and

(8) Overfishing of groundfish stocks in both the BSAI and GOA is defined.

I am required by the Magnuson Fishery Conservation and Management Act (Magnuson Act) to approve, disapprove, or partially disapprove plans and plan amendments after the 60th day, but before the close of the 95th day, following receipt by the Secretary of Commerce (Secretary) of a plan or plan amendment. The Secretary received these amendments on July 29, 1990. Following receipt of Amendments 16 and 21, I immediately commenced a review of the amendments to determine whether they were consistent with the provisions of the Magnuson Act and any other applicable law. A proposed rule was filed with the Office of the FEDERAL REGISTER on September 12, 1990, and published on September 18, 1990. The proposed rule invited public review and comment on the regulations until October 27, 1990. The final rule implementing Amendments 16 and 21 takes into account the comments that were received. Comments received are summarized and responded to in the final rulemaking.

Except for the vessel incentive program, I have determined that Amendments 16 and 21 and the implementing regulations are consistent with the national standards, other provisions of the Magnuson Act, and other applicable law, and I have approved them. General Counsel-Alaska Region, concurs with each of my findings. The final rule implementing the above measures is scheduled to be effective January 1, 1991, following a 30-day delayed effectiveness period under the Administrative Procedure Act.

I am disapproving the vessel incentive program, because it is inconsistent with the Magnuson Act and the Administrative Procedure Act. The Council intended that the proposed program identify and penalize vessels that fail to meet acceptable halibut bycatch standards that would be established for 17 separate fisheries in the BSAI and GOA. The proposed rule would have required vessels in each fishery to maintain a 4-week average bycatch rate less than two times the concurrent fleet average in each of the fisheries. Failure of a vessel to meet

such bycatch standards would have resulted in a suspension of the vessel from the Alaskan groundfish fishery for a period ranging from five days to six weeks.

National standard 7 of the Magnuson Act, however, requires that conservation and management measures shall, where practicable, minimize costs and avoid unnecessary duplication. The vessel incentive program would be inconsistent with the requirement of this national standard to minimize costs, because it would have been ineffective, and administrative costs to implement it would have been incurred unnecessarily. Subsequent to Council approval of the proposed incentive program, NMFS' analyses of the 1990 observer database indicated that numerous revisions to the observer database occur after observers are debriefed and their data are verified, which could take up to six months.

Enforcement of the proposed incentive program, however, could only be based upon verified observer data. The intent of the Council for inseason action against vessels that fail to meet acceptable bycatch standards could not be met, because enforcement actions generally would occur post-season. The time required to achieve a verified observer database for enforcement of the proposed incentive program would preempt the use of vessel suspensions as an inseason enforcement action, undermine the general effectiveness of vessel suspensions for enforcement purposes, and increase administrative costs associated with enforcement procedures without accomplishing the intended enforcement purposes.

The ineffectiveness of vessel suspensions could result from a number of situations in which vessel suspensions do not occur at an appropriate time. For example, vessel operators and/or owners may be issued a suspension notice after a vessel operator has left the vessel; fishing areas may be closed prior to vessel suspensions due to the attainment of a groundfish quota or prohibited species bycatch allowance; or the vessel may undergo a suspension period as part of its routine maintenance schedule. Administrative costs would be incurred therefore, without accomplishing their intended purpose of the program, and would not be minimized as required by national standard 7. For these reasons, therefore, the vessel incentive program violates national standard 7.

The vessel incentive program also must conform to requirements of other applicable law, including the Administrative Procedure Act. This Act requires that regulations be reasonable and effective. Data on which the vessel incentive program would be implemented, however, are not reasonable. The domestic observer data collected to date are insufficient to judge whether intrinsic variability of inseason fishery bycatch rates within each of the 17 fisheries would support the use of four-week fleet averages as a basis for acceptable bycatch standards. This problem would be

aggravated to the extent that definitions for different fisheries proposed for the 1991 incentive program would be based on species composition of catch that may not truly reflect intrinsic bycatch rates of target operations. Furthermore, the proposed incentive program would produce results that would be ineffective. For these reasons, the proposed vessel incentive program would be arbitrary and capricious and, therefore, would violate the Administrative Procedure Act.

Although NOAA cannot promulgate regulations to implement the incentive program proposed under Amendments 16 and 21, we believe that an incentive program developed within the constraints discussed above is feasible for 1991. Under section 304(b)(2) of the Magnuson Act, we offer recommendations concerning actions that the Council could take to make the vessel incentive program conform to the requirement of applicable law. These recommendations are enclosed (see Revised 1991 Vessel Incentive Program, dated November 9, 1991).

The Council may submit a revised amendment accompanied by appropriately revised proposed regulations to the Secretary. After the Secretary receives the revised amendment, he must approve, partially disapprove, or disapprove the amendment within 60 days. Implementing regulations also must be promulgated within this time frame. Given this schedule, a revised incentive program could be implemented in early February, 1991. This schedule of events will require the following action by the Council:

- November 15 telephone conference meeting of the Council to review draft amendment analysis and proposed regulations.
- Pending public comment received at the meeting, Council directs staff to make necessary changes to analysis and/or proposed regulations and requests that the revised amendment package be submitted to the Secretary for 60-day review.
- Comment period on revised amendment will be 30 days beginning on the date it is received by the Secretary (herein called the "revised receipt date").
- Implementing regulations shall be promulgated within 75 days after the revised receipt date.

We share the frustration of the Council in striving to develop and implement bycatch management measures. We remain committed to the concept that an appropriate vessel incentive program would effectively limit prohibited species bycatch rates and maximize

groundfish harvests under prohibited species catch limitations. We also recognize, however, that a vessel incentive program must be developed within the operational and administrative constraints of NMFS to implement such a program.

Sincerely,

for Jim Hawks
Steven Pennoyer,
Director, Alaska Region

ENVIRONMENTAL ASSESSMENT/REGULATORY IMPACT REVIEWS/
INITIAL REGULATORY FLEXIBILITY ANALYSIS (EA/RIR/IRFA)

FOR REVISED AMENDMENT 21

TO THE FISHERY MANAGEMENT PLAN FOR

GROUND FISH OF THE GULF OF ALASKA

AND REVISED AMENDMENT 16

TO THE FISHERY MANAGEMENT PLAN FOR

GROUND FISH OF THE BERING SEA/ALEUTIAN ISLANDS

Prepared by staff of the National Marine Fisheries Service

November 26, 1990

EA/RIR/IRFA FOR REVISIONS TO AMENDMENTS 16 AND 21
TO THE
GROUNDFISH FISHERY MANAGEMENT PLANS
FOR THE BERING SEA/ALEUTIAN ISLANDS
AND THE GULF OF ALASKA

1.0 INTRODUCTION

Revisions to Amendments 21/16 are being considered because a critical component of the bycatch management measures contained in the amendments was disapproved by the Secretary.

1.1 Overview of the Need for Action and the Alternatives

Because trawl, hook and line, and pot fisheries use non-selective harvesting techniques, incidental catches (bycatch) including crab, halibut, and herring are taken in addition to targeted species. A conflict occurs when bycatch measurably impacts the resources available to another fishery. Bycatch management attempts to balance the effects of various fisheries on each other. This is particularly contentious because fishermen value the use of crab, halibut, or herring very differently, depending on the fishery they pursue.

Amendment 21/16 was approved by the Council in June 1990, except for the vessel incentive program, it was approved by the Secretary. The Secretary disapproved the measures that held each bottom trawl fishing operation individually accountable for its bycatch of crab and halibut in the BSAI and halibut in the GOA.

The Secretary determined that the vessel incentive program in Amendments 21/16 is inconsistent with the Magnuson Act and the Administrative Procedure Act. The proposed rule required vessels in each fishery to maintain a 4-week average bycatch rate less than two times the concurrent fleet average in each of the fisheries and for each of three bycatch species. Failure of a vessel to meet such bycatch standards would result in a suspension of the vessel from the Alaskan groundfish fishery for a period ranging from five days to six weeks.

Subsequent to Council approval of the incentive program, NMFS analysis of the 1990 observer database indicated that substantial revisions to the observer database occur after observers are debriefed and their data are analyzed and corrected. Corrected data for a fishery may not be available for up to six months after a fishing week. Because enforcement of the incentive program could only be based upon corrected data, inseason action against vessels that fail to meet acceptable bycatch standards cannot be taken.

The incentive program also failed to conform to requirements of other applicable law, including the Administrative Procedure Act. This Act requires that regulations be reasonable and effective. The observer data are insufficient to determine whether variability of bycatch rates permit the use of four-week fleet averages as a basis for legally acceptable standards.

Although NOAA cannot promulgate regulations to implement this incentive program, it believes an incentive program is a feasible and critical element of the 1991 bycatch management regime. Such a program is the topic of this amendment revision package.

The Council may submit a revised amendment accompanied by proposed regulations to the Secretary. After the Secretary receives the revised amendment, he must approve, partially disapprove, or disapprove the amendment within 60 days. Implementing regulations also must be promulgated within this time frame. A revised incentive program could be implemented in early February, 1991.

The two alternatives being considered are:

1. The status quo (no action).
2. A vessel incentive program that provides civil penalties as sanctions for vessels that exceed published bycatch rate standards for halibut in the BSAI and GOA Pacific cod trawl fisheries and the GOA rockfish trawl fishery or for red king crab in the BSAI rock sole and yellowfin sole/other flatfish fisheries. The halibut program will be extended to the BSAI rock sole and yellowfin sole/other flatfish fisheries if sufficient resources are available without detracting from the effectiveness of the program for other fisheries.

The alternatives are more fully described in Section 3.

2.0 NATURE AND SOURCE OF THE PROBLEM

The groundfish fishery results in incidental fishing mortality for crab, halibut, herring and other prohibited species. These resources can also be used as current or future target catch in the crab, halibut, or herring fisheries.

The Council has established prohibited species catch (PSC) limits to control the take of crab, halibut, and herring in the groundfish trawl fisheries in the BSAI and halibut in the GOA. In 1990, the attainment of these limits resulted in closures of trawl fisheries prior to taking their allowable catch. The

failure to harvest fully the available resources represents a real cost to the trawl fishery. This cost was only partially offset by increased catch and benefits for the fixed gear groundfish fisheries.

For each PSC limit, the amount of groundfish that can be harvested is determined by the average bycatch rate of the fishery. It has been argued that a PSC limit provides fishermen an incentive to reduce bycatch rates. This argument fails to recognize that, although it is in the best interest of the fleet as a whole to decrease bycatch rates, it is in the best interest of individual operators to ignore bycatch and harvest groundfish as fast as possible prior to the closure of the fishery.

This results in inequities and unnecessarily high bycatch rates. The latter will cause a given PSC limit to impose a much higher cost on the fishery it closes. An operation that reduces its bycatch rate bears the costs of doing so generally by decreased catch or increased operating costs, but it does not receive benefits proportional to its success in reducing bycatch or to the cost of doing so. Operations that take no actions to control bycatch rates do not bear such costs but may receive a disproportionately large share of the benefit from the actions taken by others to reduce the fishery's average bycatch rate. The problems are that: (1) there are external costs and benefits that provide each operation with incentives to do what is counter to the best interests of the fishery as a whole and (2) the actions of a few operations can impose substantial costs on the rest of the fleet.

The vessel incentive program approved by the Council as part of Amendments 21/16 was intended to provide a partial solution to these problems by reducing the magnitude of the external benefits and costs. The replacement vessel incentive program discussed below is intended to do the same. This incentive program is similar to the program that was disapproved in that it is primarily intended to decrease the costs that the PSC limits will impose on the trawl fisheries in 1991 and secondarily intended to provide guidance for future development of a comprehensive, effective, equitable, and efficient long-term bycatch management regime.

3.0 DETAILED DESCRIPTIONS OF THE ALTERNATIVES

The preceding introduction to the revision of Amendments 21/16 presented an overview of the revised alternatives being considered. They are more fully described in this section.

3.1 Alternative 1: Status Quo

If Alternative 1 is chosen, the existing bycatch control

management measures and those that have been or will be approved under Amendments 21/16 and 16a will be in place. These do not include a vessel incentive program. The measures that are expected to be in place include those outlined below.

1. Crab and halibut are prohibited species in the groundfish fisheries and cannot be retained.
2. The aggregate BSAI trawl fishery PSC limits for C. bairdi Tanner crab, red king crab, and Pacific halibut are as follows:

C. bairdi 1,000,000 crabs in Zone 1 for Zone 1 closure
Tanner crab: 3,000,000 crabs in Zone 2 for Zone 2 closure

Red king crab: 200,000 crabs in Zone 1 for Zone 1 closure

Halibut: 4,400 mt catch in BSAI for Zones 1 and 2H
 closure
 5,333 mt catch in BSAI for BSAI closure

Figure 1.1 presents bycatch protection zones in relation to statistical areas. Zone 1 consists of statistical areas 511, 512, and 516, and Zone 2H is area 517.

3. Apportionments of PSC limits in the BSAI listed for the above species into bycatch allowances to DAP and JVP trawl fisheries, subject to review and revision by the Secretary of Commerce, after consultation with the Council, are authorized. For the 1991 fishing year, fishery categories are: DAP trawl fisheries for turbot, rock sole, yellowfin sole/other flatfish, and all others combined; and the JVP trawl flatfish fishery. The bycatch in each of these three flatfish fisheries counts against its PSC apportionments and when its apportionment is taken the fishery closes. The bycatch in all other trawl fisheries counts against the other fishery PSC apportionments; however, when one of its apportionments is taken, only the bottom trawl Pacific cod and pollock fisheries are closed.
4. In the GOA, the PSC limit for halibut can be set annually and apportioned by season and among the trawl, hook-and-line, and pot gear types.
5. Fishing gear restrictions in both the BSAI and GOA include a new definition of a pelagic trawl and requirements for biodegradable panels and halibut exclusion devices on groundfish pots.

6. For the BSAI, the Regional Director will be able to set a limit on the amount of the pollock TACs that can be taken in other than the mid-water pollock fisheries (16a).
7. For the BSAI, the Regional Director will have the authority to temporarily close limited areas in-season due to high bycatch rates (16a).
8. With the exception of the rock sole and arrowtooth flounder fisheries, the 1991 BSAI flatfish and Greenland turbot fisheries will not open until May 1.

3.2 Alternative 2: Revised Vessel Incentive Program

The following outlines the elements of a revised bycatch incentive program for implementation in 1991 which has been proposed to correct the deficiencies of the vessel incentive "penalty box" provisions proposed under Amendments 21/16 to the groundfish FMPs. Under the revised program, penalties would be imposed after observers have been fully debriefed and their data analyzed and corrected. In most cases, this would result in post-season action against vessels that have exhibited bycatch rates in excess of established bycatch rate standards.

If the Council adopts a revised bycatch incentive program, the program would be subject to public review and comment as part of the Secretarial review process.

I. Scope of 1991 incentive program.

A. Option 1 (as recommended by the Bycatch Committee):

The 1991 incentive program would encompass:

- (1) halibut bycatch in the BSAI and GOA Pacific cod trawl fisheries and the GOA "bottom rockfish" trawl fishery; and
- (2) red king crab bycatch in the BSAI flatfish fisheries.
- (3) All catcher/processor vessels and catcher vessels (including those that deliver unsorted codends to mothership processors) that participate in these fisheries and for which observer data are collected would be participants in the incentive program.

B. Option 2. The incentive program will be expanded to include halibut bycatch in the BSAI flatfish fisheries

if there are sufficient resources to do this without detracting from the program included under Option 1.

II. Fishery Definitions.

- A. Each week a bottom trawl vessel's observed BSAI groundfish catch of the TAC species would be used to place it into one of five fisheries for that week. The first of the five rules that is met determines the fishery assignment of a vessel.
1. Greenland turbot fishery if Greenland turbot is at least 35% of its groundfish catch.
 2. Pacific cod fishery if Pacific cod is at least 45% of its groundfish catch.
 3. Rock sole fishery if rock sole is at least 40% of its groundfish catch.
 4. Yellowfin sole/other flatfish fishery if yellowfin sole/other flatfish is at least 40% of its groundfish catch.
 5. Other bottom trawl fishery if pollock is less than 95% of its groundfish catch.

The distinction between the rock sole and yellowfin sole/other flatfish fisheries would be used for monitoring the PSC limit apportionments between these fisheries. However, for the purposes of the vessel incentive program, they would both be part of the flatfish fishery. Similarly, the definition of the turbot fishery will be used to monitor the apportionments of PSC limits to the turbot fishery. Neither the turbot fishery nor the other bottom trawl fishery will be included in the vessel incentive program for the BSAI.

- B. Each week a bottom trawl vessel's observed GOA groundfish catch of the TAC species excluding arrowtooth flounder will be used to place it into one of three fisheries for that week. The first of the three rules that is met determines the fishery assignment of a vessel.
1. Pacific cod fishery if Pacific cod is at least 45% of its groundfish catch.
 2. Rockfish fishery if rockfish (slope rockfish, demersal shelf rockfish, and thornyhead rockfish,

in the aggregate) is at least 30% of its groundfish catch.

3. Other bottom trawl fishery if pollock is less than 95% of its groundfish catch.

The other bottom trawl fishery will not be included in the vessel incentive program for the GOA.

III. Bycatch Standards.

- A. Red king crab and halibut bycatch performance standards for vessels in the monitored fisheries will be based on seasonal fixed rates. The red king crab bycatch rate standard will be for Zone 1 and compliance with the standards will be for flatfish fisheries in Zone 1. The halibut standards will be for the BSAI or GOA as a whole and compliance with the halibut standards will be for the BSAI or GOA as a whole. Prior to January 1 and July 1 of each year, bycatch rate standards will be published in the Federal Register that would be in effect for specified seasons within the six-month periods of January 1 - June 30 and July 1 through December 31, respectively. Such rates would remain in effect until revised by a subsequent notice in the Federal Register. Revisions to bycatch rate standards may be made as often as appropriate. Seasonal rates will be based on prior seasonal bycatch rates and other relevant criteria.
- B. Separate halibut bycatch standards will be established for the BSAI Pacific cod and flatfish fisheries.
- C. A single halibut bycatch standard will be established for the GOA Pacific cod and bottom rockfish fisheries that will be weighted in favor of the bottom rockfish fishery.

IV. Fishery Checkpoints and Penalties.

- A. At the end of each fishing month, the average observed bycatch rate of red king crab and/or halibut for each vessel assigned to the BSAI flatfish fishery, the BSAI/GOA Pacific cod fisheries or the GOA bottom rockfish fishery during that month will be judged against the fixed seasonal standard established for those fisheries. If the vessel's average bycatch rate for a fishing month exceeded a seasonal standard, a separate violation could be considered for each week during the month that the standard was exceeded. If

the Magnuson Act amendments as passed by the House and Senate are signed by the President, each violation will carry a maximum civil penalty of \$100,000, so total civil penalties for a monthly period could total a maximum of \$400,000. Possible sanctions in addition to the civil penalties include permit restrictions and vessel seizure.

- B. Observer sampling procedures will be standardized, to the extent possible, to remove discretionary sampling procedures by observers. Standardized procedures will be used to determine vessel bycatch rates and fishery assignments.
 - C. General Counsel, Alaska Region, will have discretion to determine whether to prorate vessel penalties, taking into account a number of factors, including resource or economic damage to the groundfish trawl fishery, relevant participation in voluntary programs designed to reduce prohibited species bycatch, and culpability of the vessel operator/owner.
 - D. NMFS will institute an enforcement policy to expedite citation and penalty procedures for vessels with the most flagrant apparent violations (excessive bycatch rates) which are identified inseason. Once such a vessel is preliminarily identified through weekly observer reports, the vessel could be placed on a priority list for observer debriefing, citation, and GCAK legal proceedings.
- V. Public Release of Vessel Bycatch Rates.
- A. Under a proposed regulatory amendment to the observer plan, NMFS will have the authority to publicize observed bycatch rates of individual vessels. If such authority is approved, NMFS will have the option of posting weekly observed bycatch rates that could be used by vessel operators as guidance on whether or not changes in fishing practices are necessary to meet bycatch performance standards. At a minimum, NMFS will continue to release a vessel's observed bycatch rate to the vessel's operator or owner upon request. Whether or not NMFS exercises authority for public release of observed bycatch rates, inseason weekly rates available to the industry will continue to be based on unverified observer data and subject to revision as observers are debriefed and their data are analyzed and corrected.

4.0 Analysis of the Alternatives

4.1 Alternative 1: The Status Quo

The bycatch management regime that will be in place for the 1991 fishing year with Alternative 1 is more flexible than that which has been in effect during 1990. It is expected to make the PSC limits less costly to the groundfish trawl fishery by postponing the yellowfin sole/other flatfish and turbot fisheries in the BSAI, by providing more flexibility in apportioning the PSC limits among fisheries and seasons in the BSAI and GOA, and by providing the Regional Director with inseason authority to close BSAI fisheries or areas with exceptionally high bycatch rates. Had these measures been in effect in 1990, some of the closures that occurred could have been delayed or prevented and the cost imposed on the trawl fishery as a result of the PSC limits could have been substantially reduced.

These measures are expected to reduce the costs the PSC limits will impose on the trawl fishery in 1991; however, potential changes in the 1991 fishery may result in the limits imposing higher costs. These changes include an earlier and more intensive fishery cod fishery and new entrants into the cod fishery if the first period apportionment of the pollock TACs results in an early switch from the pollock fishery to the cod fishery. They could also include a more extensive bottom trawl fishery for pollock due to increases in pollock fillet prices relative to surimi prices. The potential increase in halibut bycatch early in the year as a result of increased bottom trawl effort for Pacific cod and pollock may be offset to some extent by relatively lower halibut bycatch rates early in the year before halibut move into more shallow waters and become more vulnerable to these fisheries.

Although it is not known whether the PSC limits will be more burdensome to the trawl fishery in 1991 than they were in 1990, it is clear that in the absence of a vessel incentive system that decreases both the external costs of high bycatch rates and the external benefits of taking actions to reduce bycatch rates, fishing operations will continue to have an incentive to have bycatch rates that are not in the best interest of the trawl fisheries. Based on projections from the bycatch model that was used to evaluate Amendment 16a, it is estimated that gross trawl fishery revenue and gross revenue net of variable cost will be, respectively, \$130 million and \$48 million less without the vessel incentive program assumed to be in place for the purposes of the analysis of Amendment 16a. Similar estimates are not available for the Gulf.

Despite the speculative nature of these estimates, the cost imposed on the trawl fishery by the PSC limits in the BSAI and GOA are expected to be substantially greater if there is no

vessel incentive program. A significant part of the higher costs will be due to exceptionally high bycatch rates associated with a relatively small percentage of both the total number of fishing operations and total groundfish catch. For example, the observer data that are available for 67 fishing operations that participated in the 1990 BSAI Pacific cod fishery indicate that the 13 operations with the highest halibut bycatch rates for the year as a whole: (1) accounted for 38.8% of the observed halibut bycatch but only 16.7% of the observed catch in the cod fishery; and (2) increased the fishery's halibut bycatch rate from 1.1% to 1.5% of its groundfish catch. Similar comparisons are made for other fisheries in the following section in which the effects of the revised vessel incentive program are discussed.

4.2 Alternative 2: Revised Vessel Incentive Program

The proposed elements of the revised vessel incentive program are evaluated with respect to whether they are expected to result in a program that is effective and equitable, that can be implemented early in 1991 given the time and resources that are expected to be available, and that provides a cost effective solution to the problems caused by the externalities associated with reductions in bycatch rates.

4.2.1 Scope of the Program

The program will be limited to the BSAI cod and flatfish fisheries and the GOA cod and rockfish fisheries for several reasons. The time and resources necessary to develop and implement similar programs for additional fisheries are not expected to be available. Expanding the program beyond the level that can be affectively supported would result in a more costly but less effective program.

The program that was initially designed for the BSAI was extended to the GOA to prevent the possibility that fishing operations would practice in the Gulf or fish in the Gulf after not being able to meet the bycatch rate standards in the BSAI. Either would result in higher bycatch rates in the Gulf and corresponding decreases in the amount of groundfish that could be harvested in the Gulf prior to PSC limit induced closures. The fisheries and bycatch species to be included are based on priorities established by industry representatives for the BSAI and GOA trawl fisheries. The closures of the BSAI cod and flatfish fisheries in 1990 posed the most significant costs to the trawl fishery as a result of the BSAI PSC limits. In the Gulf, the cod and rockfish fisheries are expected to account for much of the bottom trawl catch and halibut bycatch. Therefore, these fisheries are thought to be the most critical fisheries for an incentive program.

The vessel incentive program will increase some of the inequities

of the current bycatch management regime. For vessels in BSAI cod and flatfish fisheries and the GOA cod and rockfish fisheries, it will increase the disparity in costs between vessels with 100%, 30%, and no observer coverage. It will also increase the inequity associated with the fact that, in the BSAI, all bycatch except that of the flatfish and turbot fisheries counts against the other bottom trawl PSC bycatch allowances, but that only the bottom trawl cod and pollock fisheries are closed when the apportionment is taken. This situation will be less equitable because even though the cod fishery will be subject to the costs of the vessel incentive program and is expected to have lower bycatch rates as a result of the program, it can still be shut down by high bycatch in other fisheries. The limited scope of the program will also introduce new inequities. Specifically, the fisheries that are not included in the program are not provided as much of an opportunity to reduce their bycatch rates.

The decision to include catcher vessels delivering codends to processing vessels in the incentive program and to exclude processing vessels was based on comments by industry representatives for the trawl fisheries. This will require observers on these processing vessels to identify the catcher vessels associated with each codend delivery. The observer program has indicated that this will require a change in observer reporting that can be accomplished at a relatively small cost. This will prevent a disparity in the accountability of bycatch by catcher vessels that deliver to at-sea and shore based processors.

The addition of halibut to the vessel incentive program for the BSAI flatfish fisheries (i.e., Option 2) will assist in delaying a halibut closure that will close Zones 1 and 2H. Such a closure could substantially reduce the benefits to the flatfish fishery gained by the vessel incentive program for red king crab in Zone 1. If halibut is not included in the program, fishing operations that cannot meet the red king crab bycatch rate standard in Zone 1 may elect to fish in Zone 2. This could result in higher halibut bycatch and an earlier closure of Zones 1 and 2H. It is not known if the time and resources necessary to add halibut to the BSAI flatfish fishery vessel incentive program will be available without detracting from the other programs.

4.2.2 Fishery Definitions

The proposed fishery definitions are based on at-sea observer data for the 1990 DAP fisheries in the BSAI and GOA. Catch and bycatch data by vessel and reporting week (i.e., vessel week observations) were sorted on the basis of the percentage of the groundfish catch of TAC species that was accounted for by the species for which a fishery definition was needed. This was done separately for flatfish, Greenland turbot, and Pacific cod in the BSAI and separately for Pacific cod and rockfish (i.e., slope

rockfish, demersal shelf rockfish, and thornyhead rockfish, in the aggregate) in the GOA. For the Gulf, arrowtooth flounder catch was deducted from groundfish catch prior to calculating species composition by vessel week. The data that were sorted to define a fishery for each species or species group excluded vessel week observations for which the species did not account for at least 20% of the groundfish catch. The exception was that for Greenland turbot, only vessel week observations with Greenland turbot accounting for less than 5% of the catch were excluded. An explanation for each of the definitions in terms of the corresponding sorted data is presented below.

BSAI Cod Fishery The halibut bycatch rate was relatively stable for a cod fishery defined in terms of a minimum catch composition rule of 45% to 60% but fell for a rule of 40%. At or above a 45% rule, cod was the dominant species, below the 45% rule it was not. About 78.4% of the cod catch in the sorted data set was accounted for by vessel week observations in which cod was at least 45% of the groundfish catch.

BSAI Flatfish Fishery The halibut bycatch rate increased sharply when flatfish accounted for less than 40% of the catch and red king crab bycatch rates were subject to large fluctuations over a wide range of rules. At or above a 40% rule, flatfish was the dominant species, below the 40% rule it was not. About 89% of the flatfish catch in the sorted data set was accounted for by vessel week observations in which flatfish was at least 40% of the groundfish catch.

BSAI Greenland Turbot Fishery The halibut bycatch rate was relatively unstable for a Greenland turbot fishery defined in terms of a minimum catch composition rule; however, there was a pronounced decrease in the bycatch rate when Greenland turbot accounts for less than 35% of the catch. Above a 35% rule, Greenland turbot was the dominant species; at the 35% rule, it was the dominant species if arrowtooth flounder is ignored; and below the 35% rule, it was not the dominant species. Over 88% of the Greenland Turbot catch in the sorted data set was accounted for by vessel week observations in which Greenland turbot was at least 35% of the groundfish catch.

GOA Cod Fishery The halibut bycatch rate was unstable for a large range of rules. At or above a 45% rule, cod was the dominant species, below the 45% rule it was not. About 90% of the cod catch in the sorted data set was accounted for by vessel week observations in which cod was at least 45% of the groundfish catch.

GOA Rockfish Fishery The halibut bycatch rate was unstable for a large range of rules. At or above a 35% rule, rockfish was the dominant species, below the 35% rule it was not. Almost 97% of the rockfish catch in the sorted data set was accounted for by

vessel week observations in which rockfish was at least 30% of the groundfish catch.

4.2.3 Bycatch Rate Standards

The use of seasonal bycatch rate standards is intended to allow for seasonality in the factors that affect bycatch rates. The seasonal rates will be established semi-annually to reduce the costs of establishing the rates. For purposes of this analysis, seasonal rates based on calendar quarters were examined, although additional data collected from the groundfish fisheries may indicate that seasonal rates based on other than calendar quarters may be more appropriate.

The red king crab standard will be based on historical bycatch rates in Zone 1 and compliance with the standard will be monitored only for Zone 1. There are two primary reasons for this. First, the red king crab PSC limit is only for Zone 1. Second, if a flatfish fishing operation's monthly catch and bycatch from the BSAI as a whole is used to determine its monthly bycatch rate, the operation may be provided with an incentive that will increase the probability of a halibut closure of Zones 1 and 2H without increasing the amount of flatfish that can be harvested in Zone 1. Specifically, a fishing operation could take part of its catch each month in Zone 2 in an attempt to reduce its BSAI king crab bycatch rate. However, to the extent that halibut bycatch rates are higher outside of Zone 1, the halibut PSC limit induced closure of Zones 1 and 2H will occur sooner. The incentive for a fishing operation to do this would of course be greater if halibut is not included in the incentive program for the flatfish fisheries.

Based on comments from industry representatives, the same set of bycatch rate standards were proposed to be used for the GOA Pacific cod and bottom trawl rockfish fisheries to reduce the cost of establishing, administering, and enforcing the standards. The bycatch rates in the rockfish fishery were not expected to be sufficiently greater than those in the cod fishery to prevent standards based on historical halibut bycatch rates for the rockfish fishery from being appropriate for the cod fishery. Initial analyses of 1990 data, however, indicates that bycatch rates in the rockfish and Pacific cod fisheries may differ significantly for some seasons. This difference may require that separate rates be established for the GOA rockfish and Pacific cod fisheries if the additional administrative and enforcement costs can be accommodated by NMFS.

4.2.3.1 Tentative bycatch rate standards

The fishery definitions presented above were used to place each 1990 vessel week observation into one of the vessel incentive program fisheries or into the other fishery category. The data

for each of the incentive program fisheries were sorted by fishery, quarter, halibut (or red king crab) bycatch rate, and vessel month to calculate the distribution of catch and bycatch by quarter for each fishery. The sorted data were then used to select tentative bycatch rate standards and to estimate the effects of those standards on average bycatch rates.

For each fishery and quarter, for which there are sufficient data: (1) the average bycatch rate is stated; (2) the average bycatch rate for the vessel month observations with the lowest bycatch rates but that account for about 80% of the catch is given; (3) the tentative standard is set equal to the latter average bycatch rate; and (4) an estimate of the effect of that standard is presented. In some cases, the small number of observations prevented the identification and use of the bycatch rate associated with the 80% of the catch with the lowest bycatch rates. For the Gulf, halibut bycatch rates are presented as a percentage of groundfish catch excluding arrowtooth flounder.

The estimate of the effect of a standard on the average bycatch rate of a fishery is naturally quite speculative. The estimates presented below were generated by eliminating all vessel month observations with a bycatch rate greater than twice the standard. The implicit assumptions are that no operation will exceed the standard by more than 100% and that those that did in 1990 would have taken actions such that their bycatch performance would have duplicated that of operations that did not exceed the standard by more than 100%.

The 1990 bycatch rate, the tentative standard, and an estimate of the resulting bycatch rate by fishery and quarter are summarized in Table 1.

If it is determined that cod fishery halibut bycatch rates differ substantially between the Western Gulf and Central Gulf, it may be desirable to establish the Gulf cod fishery standard based on the bycatch rate data from the area with the higher rates. Due in part to the flexibility there is in establishing the halibut PSC limit for the GOA trawl fishery and to the distribution of bycatch rates among vessels, a more lenient standard for the GOA cod fishery may not result in a substantially earlier closure of the GOA bottom trawl fishery.

4.2.3.1.1 Halibut bycatch rates

First quarter BSAI cod fishery The data used for the cod fishery consists of all vessel week observations for which cod accounted for at least 45% of a vessel's weekly groundfish catch and for which Greenland turbot accounted for less than 35% of the catch. During the first quarter, the average halibut bycatch rate for the fishery as a whole was 1.35% (i.e., 1.35 mt of halibut per 100 mt of groundfish). However, about 80% of the catch was taken

in the set of vessel month observations that had an average bycatch rate of 0.89%. The other (higher bycatch rate) observations accounted for 20% of the groundfish catch but for almost 48% of the halibut bycatch. If the bycatch rate standard had been 0.89%, it is estimated that the average bycatch rate also would have been 0.89% and about 52% more groundfish catch could have been taken with the same amount of halibut bycatch.

Second quarter BSAI cod fishery During the second quarter, the average halibut bycatch rate for the fishery as a whole was 1.85%. However, about 80% of the catch was taken in the set of vessel month observations that had an average bycatch rate of 1.05%. The other (higher bycatch rate) observations accounted for 20% of the groundfish catch but for 54% of the halibut bycatch. If the bycatch rate standard had been 1.05%, it is estimated that the average bycatch rate would have been 0.96% and about 93% more groundfish catch could have been taken with the same amount of halibut bycatch.

Third and fourth quarters BSAI cod fishery Due to the PSC limit induced closures, there is not sufficient data from the 1990 DAP fishery to establish standard rates or estimate the effects of such standards. Both will be done, to the extent possible, using data from the 1986-89 joint venture fisheries.

First quarter BSAI flatfish fishery The data used for the flatfish fishery consists of all vessel week observations for which flatfish accounted for at least 40% of a vessel's weekly groundfish catch and for which Greenland turbot accounted for less than 35% of the catch and cod accounted for less than 45% of the catch. During the first quarter, the average halibut bycatch rate for the fishery as a whole was 1.31% (i.e., 1.31 mt of halibut per 100 mt of groundfish). However, about 80% of the catch was taken in the set of vessel month observations that had an average bycatch rate of 0.94%. The other (higher bycatch rate) observations accounted for 20% of the groundfish catch but for almost 42% of the halibut bycatch. If the bycatch rate standard had been 0.94%, it is estimated that the average bycatch rate would have been 0.92% and about 42% more groundfish catch could have been taken with the same amount of halibut bycatch.

Second quarter BSAI flatfish fishery Due to the PSC limit induced closures, there is not sufficient data from the 1990 DAP fishery to establish standard rates or estimate the effects of such standards. Both will be done, to the extent possible, using data from the 1986-89 joint venture fisheries.

Third quarter BSAI flatfish fishery During the third quarter, the average halibut bycatch rate for the fishery as a whole was 0.17%. However, about 85% of the catch was taken in the set of vessel month observations that had an average bycatch rate of 0.08%. The other (higher bycatch rate) observations accounted

for 15% of the groundfish catch but for 59% of the halibut bycatch. If the bycatch rate standard had been 0.08%, it is estimated that the average bycatch rate also would have been 0.08% and about 125% more groundfish catch could have been taken with the same amount of halibut bycatch.

The average rate that was achieved during the third quarter was primarily the effect of a voluntary industry program to reduce halibut bycatch rates. Further reductions or even the maintenance of this low rate may be difficult. Therefore, the tentative standard is set at 0.17%.

Fourth quarter BSAI flatfish fishery During the first part of the fourth quarter, the average halibut bycatch rate for the fishery as a whole was 0.19%. However, about 77% of the catch was taken in the set of vessel month observations that had an average bycatch rate of 0.11%. The other (higher bycatch rate) observations accounted for 23% of the groundfish catch but for 54% of the halibut bycatch. If the bycatch rate standard had been 0.11%, it is estimated that the average bycatch rate also would have been 0.11% and about 73% more groundfish catch could have been taken with the same amount of halibut bycatch.

The average rate that was achieved during the first part of the fourth quarter was primarily the effect of a voluntary industry program to reduce halibut bycatch rates. Further reductions or even the maintenance of this low rate may be difficult. Therefore, the tentative standard is set at 0.19%.

First quarter GOA rockfish fishery The data used for the rockfish fishery consists of all vessel week observations for which rockfish accounted for at least 30% of a vessel's weekly groundfish catch excluding arrowtooth flounder and for which Pacific cod accounted for less than 45% of the catch. During the first quarter, the average halibut bycatch rate for the fishery as a whole was 2.91% (i.e., 2.91 mt of halibut per 100 mt of groundfish). However, about 64% of the catch was taken in the set of vessel month observations that had an average bycatch rate of 1.17%. The other (higher bycatch rate) observations accounted for 36% of the groundfish catch but for 74% of the halibut bycatch. If the bycatch rate standard had been 1.17%, it is estimated that the average bycatch rate would have been 1.12% and about 160% more groundfish catch could have been taken with the same amount of halibut bycatch.

Second quarter GOA rockfish fishery During the second quarter, the average halibut bycatch rate for the fishery as a whole was 3.31%. However, about 81% of the catch was taken in the set of vessel month observations that had an average bycatch rate of 1.89%. The other (higher bycatch rate) observations accounted for 19% of the groundfish catch but for 54% of the halibut bycatch. If the bycatch rate standard had been 1.89%, it is

estimated that the average bycatch rate would have been 1.65% and about 100% more groundfish catch could have been taken with the same amount of halibut bycatch.

Third quarter GOA rockfish fishery During the third quarter, the average halibut bycatch rate for the fishery as a whole was 1.96%. However, about 81% of the catch was taken in the set of vessel month observations that had an average bycatch rate of 0.94%. The other (higher bycatch rate) observations accounted for 19% of the groundfish catch but for 64% of the halibut bycatch. If the bycatch rate standard had been 0.94%, it is estimated that the average bycatch rate would have been 0.83% and about 136% more groundfish catch could have been taken with the same amount of halibut bycatch.

Fourth quarter GOA rockfish fishery During the first part of the fourth quarter, the average halibut bycatch rate for the fishery as a whole was 8.49%. About 89% of the catch was taken in the set of vessel month observations that had an average bycatch rate of 0.25%. The other (higher bycatch rate) observations accounted for 11% of the groundfish catch but for 97% of the halibut bycatch. If the bycatch rate standard had been 0.25%, it is estimated that the average bycatch rate would have been 0.01 and a huge amount of groundfish could have been taken with the same amount of halibut bycatch.

First quarter GOA cod fishery The data used for the cod fishery consists of all vessel week observations for which cod accounted for at least 45% of a vessel's weekly groundfish catch excluding arrowtooth flounder. During the first quarter, the average halibut bycatch rate for the fishery as a whole was 3.31% (i.e., 3.31 mt of halibut per 100 mt of groundfish). However, about 80% of the catch was taken in the set of vessel month observations that had an average bycatch rate of 0.52%. The other (higher bycatch rate) observations accounted for 20% of the groundfish catch but for 87% of the halibut bycatch. If the bycatch rate standard had been 0.52%, it is estimated that the average bycatch rate would have been 0.33% and about 900% more groundfish catch could have been taken with the same amount of halibut bycatch.

If the proposed first quarter rockfish standard of 1.17% had been used for the cod fishery in 1990, it is estimated that the average bycatch rate in the cod fishery would have been 0.62% and about 434% more groundfish could have been taken with the same amount of halibut bycatch.

Second quarter GOA cod fishery During the second quarter the average halibut bycatch rate for the fishery as a whole was 3.06%. However, about 81% of the catch was taken in the set of vessel month observations that had an average bycatch rate of 1.18%. The other (higher bycatch rate) observations accounted for 19% of the groundfish catch but for 69% of the halibut

bycatch. If the bycatch rate standard had been 1.18%, it is estimated that the average bycatch rate would have been 0.46% and about 565% more groundfish catch could have been taken with the same amount of halibut bycatch.

If the proposed second quarter rockfish standard of 1.89% had been used for the cod fishery in 1990, it is estimated that the average bycatch rate in the cod fishery would have been 0.99% and about 209% more groundfish could have been taken with the same amount of halibut bycatch.

Third quarter GOA cod fishery During the third quarter the average halibut bycatch rate for the fishery as a whole was 3.29%. However, about 81% of the catch was taken in the set of vessel month observations that had an average bycatch rate of 1.04%. The other (higher bycatch rate) observations accounted for 19% of the groundfish catch but for 74% of the halibut bycatch. If the bycatch rate standard had been 1.04%, it is estimated that the average bycatch rate also would have been 0.42% and about 683% more groundfish catch could have been taken with the same amount of halibut bycatch.

If the proposed third quarter rockfish standard of 0.94% had been used for the cod fishery in 1990, it is estimated that the average bycatch rate in the cod fishery would have been 0.29%, and groundfish catch could have increased by a factor of 10 without increasing the amount of halibut that was taken.

Fourth quarter GOA cod fishery During the first part of the fourth quarter, the average halibut bycatch rate for the fishery as a whole was 5.15%. However, about 87% of the catch was taken in the set of vessel month observations that had an average bycatch rate of 1.24%. The other (higher bycatch rate) observations accounted for 13% of the groundfish catch but for 79% of the halibut bycatch. If the bycatch rate standard had been 1.24%, it is estimated that the average bycatch rate would have been 0.48% and groundfish catch could have increased by a factor of almost 10 without increasing the amount of halibut that was taken.

If the proposed fourth quarter rockfish standard of 0.25% had been used for the cod fishery in 1990, it is estimated that the average bycatch rate in the cod fishery would have been 0.17%, and groundfish catch could have increased by much more than a factor of 10 without increasing the amount of halibut that was taken.

4.2.3.1.2 Zone 1 red king crab bycatch rates

First quarter BSAI flatfish fishery The data used for the flatfish fishery consists of all vessel week observations for

which flatfish accounted for at least 40% of a vessel's weekly groundfish catch and for which Greenland turbot accounted for less than 35% of the catch and cod accounted for less than 45% of the catch. During the first quarter, the average red king crab bycatch rate for the fishery as a whole was 2.88 (i.e., 2.88 red king crab per mt of groundfish). However, 78% of the catch was taken in the set of vessel month observations that had an average bycatch rate of 1.70. The other (higher bycatch rate) observations accounted for 22% of the groundfish catch but for 54% of the red king crab bycatch. If the bycatch rate standard had been 1.70, it is estimated that the average bycatch rate would have been 0.56 and over 400% more groundfish catch could have been taken with the same amount of red king crab bycatch.

Second through fourth quarters BSAI flatfish fishery Due to the PSC limit induced closures, there is not sufficient data from the 1990 DAP fishery to establish standard rates or estimate the effects of such standards. Both will be done, to the extent possible, using data from the 1986-89 joint venture fisheries.

4.2.4 Fishery Check Points and Penalties

Monthly check points will be used to provide a balance between the benefits and costs of periods of various lengths. Within a month, a fishing operation would have an opportunity either to bank catch with low bycatch rates against the possibility of having high bycatch rates for a short period or to make adjustments if it initially had high bycatch rates. Weekly check points would not provide such opportunities and in fact may provide little opportunity for corrective actions by a fishing operations due in part to the time delay that can occur in providing the fishing operation with observer program estimates of bycatch rates. The objective of the program is to reduce overall bycatch rates by having each fishing operation take corrective actions when its bycatch rates are too high. The objective is not to assure that high bycatch rates never occur for short periods of time.

A longer period between check points would provide a greater opportunity for fishing operations to make the necessary adjustments. However, it would both decrease the perceived urgency of making the appropriate corrections and decrease the potential timeliness of enforcement action against a vessel which has excessive bycatch. The effectiveness of the program is dependent on the potential of a quick and certain response when a fishing operation is imposing large costs on the fishery as a whole.

The range of penalties is sufficiently broad that the penalty for taking excessive bycatch can be comparable to the costs that the excessive bycatch imposes on a specific trawl fishery. If this

is done, the penalties will eliminate the externalities that provide fishing operations an incentive to have bycatch rates that are too high from the perspective of a fishery as a whole. To the extent that this is done, the cost that a specific PSC limit apportionment imposes on a trawl fishery will tend to be minimized.

To do this, the normal vessel penalties could be based on three factors: (1) the extent to which a vessel exceeds a standard bycatch rate during a month; (2) the vessel's total catch of allocated groundfish species for the month; and (3) an estimate of the value of the foregone groundfish catch per unit of excessive bycatch. The estimate of the vessel's total groundfish catch would be based on product weights and discards reported weekly by a catcher/processor or on fish ticket data including discards for catcher vessels. The value of the foregone groundfish catch would be based on the groundfish catch per unit of bycatch at the bycatch rate standard. For example, if the halibut bycatch standard is 1%, if the vessel has a bycatch rate of 1.5%, if the vessel's groundfish catch is 1,000 mt, and if the net value of groundfish catch is \$400/mt, the normal penalty would be calculated as follows:

estimated bycatch = 15 mt of halibut ($0.015 \times 1,000$ mt)

acceptable bycatch = 10 mt of halibut ($0.01 \times 1,000$ mt)

excessive bycatch = 5 mt of halibut (15 mt - 10 mt)

foregone value/mt of excess bycatch = \$40,000 ($\$400/\text{mt}$ of groundfish \times 100 mt of groundfish/mt of halibut bycatch)

penalty = \$200,000 (5 mt of halibut \times \$40,000/mt of halibut).

In this example, the penalty of \$200,000 would be within the range of permissible penalties if the vessel had exceeded the halibut bycatch rate standard in at least two weeks during the month. If the civil penalties were not adequate to cover the costs imposed on the fishery, additional sanctions could be used. These would include permit restrictions or vessel seizure. The range of sanctions is expected to be sufficiently broad that they could be used to eliminate the externalities.

By holding a fishing operation accountable for the cost its excess bycatch imposes on a fishery, a fishing operation with a high bycatch rate before the end of a month and with little expectation of being able to meet the standard for the month, would have an incentive to voluntarily cease fishing. If instead a flat rate fine for exceeding a standard is used, the same fishing operation would have an incentive to continue to fish that month and perhaps with an even higher bycatch rate.

Penalties based on the amount of excess bycatch, as opposed to those based only on whether or not a bycatch rate standard was exceeded, will not only tend to produce a more efficient solution, they will also tend to produce a more equitable one. It will be more equitable in three ways. First, The disparity in treatment of operations just under and just over the standard is substantially reduced. Second, penalties are reduced in direct proportion to the success of an operation in reducing its bycatch. Finally, the operations that impose the greatest costs on a trawl fishery will have the largest penalties.

In implementing an effective vessel incentive program, the industry has two important advantages compared to the Council and NMFS. The regulatory and budgetary constraints are less severe for industry. However, these advantages are offset by the lack of enforcement authority by industry. In recognition of the fact that a successful industry program can assist in both decreasing the cost that PSC limits impose on the trawl fisheries and decreasing the agency costs associated with bycatch management, the Council, NMFS, and GCAK will encourage and support industry programs to reduce bycatch rates. This will be done by providing bycatch rate information for such programs, to the extent possible given the resources that are available. GCAK could also consider, among other factors, any relevant participation in such programs when recommending penalties in response to a violation of seasonal bycatch rate standards. This level of support for voluntary industry programs could make them more attractive to fishing operations. There is not expected to be sufficient time or resources to develop and implement a vessel incentive program that can support more fully the voluntary programs in 1991.

The effectiveness of the program will also be increased by instituting an enforcement policy to expedite citation and penalty procedures for vessels with the most flagrant apparent violations (those that have imposed the greatest cost on a trawl fishery) which are identified inseason. Once such a vessel was preliminarily identified through weekly observer reports, the vessel could be placed on a priority list for observer debriefing, citation, and GCAK legal proceedings. This will increase the expectation by fishing operations that they will indeed be held accountable for the costs they impose on a trawl fishery.

The ability of individual observers to accurately report catch and bycatch is critical to the success of any vessel incentive program. Any such program will place additional burdens on the observer and provide an increased incentive for a fishing operations to have the observers' estimates understate the actual bycatch rates. These problems and the need to protect the ability of the observers to collect accurate data for a variety

of purposes other than bycatch management are recognized and are being considered by the Observer Program.

Although these problems cannot be eliminated, they can be reduced. One method of doing this is to distance an observer from the action that will be taken against a vessel which exceeds a bycatch rate standard. This will be accomplished to some degree by both the use of monthly check points, as opposed to more frequent check points, and the use of delayed civil penalties, as opposed to the immediate sanctions envisioned in the initial vessel incentive program that was disapproved.

5.0 BIOLOGICAL AND PHYSICAL IMPACTS

The expected differential effects of the two alternatives on bycatch, groundfish catch, marine mammals and birds, and the physical environment are discussed below.

5.1 Bycatch

Compared to Alternative 1 (i.e., the status quo), Alternative 2 will tend to decrease bycatch. However, its primary effect is expected to be reduced bycatch rates that will permit more groundfish to be taken by the trawl fisheries before the PSC limits are reached. The reduction in bycatch could occur for one of two reasons. First, the bycatch in the trawl fisheries is constrained by the PSC limits under either alternative; however, with Alternative 1, groundfish catch and bycatch will be greater in the fixed gear fisheries than with Alternative 2. Second, Alternative 2 may reduce bycatch rates sufficiently that groundfish TACs are reached and fisheries are closed before the PSC limits are fully utilized.

The vessel incentive program is expected to increase the differences in bycatch rates between observed and unobserved fishing operations. This will make it more difficult to estimate the bycatch of unobserved operations and, therefore, total bycatch. This will be more of a problem in the GOA than in the BSAI because a much larger percentage of total groundfish catch will be accounted for by vessels in the length categories that have either no observer coverage or only 30% coverage. To date, approximately 54.7 percent of the bottom trawl catch in the BSAI has been observed compared to about 39.6 percent in the GOA. The differences in bycatch rates could certainly be great enough that it would be inappropriate to use unadjusted observed bycatch rates to estimate total bycatch.

The difference in bycatch rates will increase the difficulty and cost of estimating total bycatch. It will not necessarily increase the probability that actual bycatch will be underestimated, that the PSC limits will be exceeded, or that

bycatch will increase.

5.2 Groundfish Catch

Compared to Alternative 1, Alternative 2 is expected to result in increased groundfish catch in the trawl fishery. The flatfish TACs are expected to be more fully utilized with Alternative 2. The Pacific cod TAC will also be more fully utilized with Alternative 2 unless the fixed gear fisheries would increase their cod catch under Alternative 1 enough to fully offset the lower trawl cod catch that would occur with Alternative 1. With either alternative, groundfish catch would be limited by existing TACs; therefore, neither alternative is expected to adversely affect the biological productivity of the groundfish resources in the BSAI or GAO.

5.3 Marine Mammals and Birds

The difference between the alternatives in terms of their effects on marine mammals and sea birds is not expected to be measurable.

5.4 Physical Environment

The increased bottom trawl effort that is expected to occur with Alternative 2 is within the levels of effort that have occurred in recent years and is not expected to affect the physical environment in a way that will have a measurable effect on the biological productivity of the BSAI or GOA ecosystem.

6.0 SOCIOECONOMIC IMPACTS

6.1 Reporting Costs

Existing reporting practices by industry would not need to be augmented to implement Alternative 2.

6.2 Administrative, Enforcement, and Information Costs

Alternative 2 will result in increased agency costs of up to \$400,000. Violation of a bycatch rate standard implemented under Alternative 2 would be prosecuted under the Magnuson Act and other applicable law. The Magnuson Act describes prohibited acts, civil penalties, criminal offenses, and civil forfeitures in sections 307-310 (16 USC 1857-1860). A specific schedule of penalties for violation of bycatch rates standards would be developed by NOAA, General Counsel in consultation with NMFS. The penalty schedule would be designed in such a manner that an economic incentive would exist to comply with the bycatch rate standards established under Alternative 2.

6.2.1 NMFS, Office of Enforcement.

Enforcement of bycatch rate standards would occur after observers have been debriefed and their data checked and corrected. Once a vessel's bycatch rate has been preliminarily determined to be in violation of a bycatch rate standard, additional work would be necessary to develop a case history to support prosecution of the vessel's operator/owner. The work load necessary to prosecute 10 to 15 cases per year would require an additional full time enforcement agent at the GS-11 level (\$43,000). Due to the remote nature of Alaska fishing communities, travel of enforcement agents to obtain initial interviews of observers, crew, vessel operators/owners, and others necessary for case documentation is estimated at about \$1,000 per case. Expenses for observer travel necessary for additional case documentation is estimated at another \$1,000 per case. Given a case load of 10 to 15 violations per year, therefore, travel costs necessary to develop supporting evidence could reach \$30,000 per year. This value would increase to the extent that NMFS would incur the salary costs of observers during the period they are being interviewed and away from their contracted duties as an observer.

6.2.2 General Counsel, Alaska Region (GCAK).

Under Alternative 2, additional legal work involving prosecution of violations of bycatch rate standards would require one additional staff attorney for GCAK. Assuming the staff attorney would be hired at the GS-13 level, salary and benefits for additional staff are estimated at about \$61,000.

6.2.3 Administrative Costs

Under Alternative 2, up to 120 vessels could receive additional monitoring for halibut and/or red king crab bycatch rates. This estimate is based on the number of vessels that participated in the 1990 Pacific cod and flatfish fisheries in the BSAI and the Pacific cod and bottom rockfish fisheries in the GOA. This level of monitoring would require an additional part-time computer systems analyst/programmer (.5 FTE at the GS-13 level) and up to two additional staff for processing of observer reports, verifying information, key punching data, and responding to industry requests for updated information on vessel and fleet bycatch rates. Given that different fisheries are prosecuted at different times of the year, staff needs may be irregularly spaced throughout the year. A portion of the additional positions, therefore, could be filled by short-term reassignments of personnel from other programs or agencies. Full funding of 2.5 additional personnel would cost about \$94,000 annually.

6.2.4 Enhancement of the NMFS observer program

The bycatch reduction program proposed under Alternative 2 is dependent on verified observer data. As such, additional

personnel would need to be hired to conduct observer debriefings and other verification of observer data. The augmented program would require 2 to 3 persons to debrief observers in Dutch Harbor, 1 to 2 persons in Kodiak, and 1 person that would cover Southeast Alaska. ADF&G personnel may help out with some of the debriefing process, but NMFS will need to hire 2 to 3 additional persons for timely debriefing of observers and provide funds for appropriate office space at remote sites. The estimated costs of the enhancements of the observer program is \$150,000.

6.3 Distribution of Costs and Benefits

Table 1 provides estimates of the reductions in bycatch rates that would result from the implementation of the vessel incentive program of Alternative 2. The estimated reductions in bycatch rates would allow substantial increases in groundfish catch in the trawl fisheries. The resulting increase in first wholesale value of the associated groundfish products could exceed \$100 million and the increase in wholesale value net of variable costs could approach \$50 million. These estimates are based on the bycatch model that was used to evaluate Amendment 16a and exclude the potential benefits in the GOA.

The benefits to the trawl fishery from increased cod catch will be offset to some extent by decreased cod catch in the fixed gear fisheries and increased competition in cod markets. The benefits to the trawl fishery from increased flatfish catch are not expected to have similar offsets for the fixed gear fishery.

Alternative 2 will impose costs on the trawl fishery. They include the cost of the adjustments necessary to keep bycatch rates below the standards, paying the penalties when such adjustments are not made, or voluntarily not fishing. Having these choices usually will be preferable to not being able to fish because a PSC limit has been reached.

With the exception of the increased agency costs, the differences in the distribution of benefits and cost will be focussed on those directly involved in the groundfish fisheries. The alternatives are not expected to have measurably different effects on consumers.

The net benefits to those who are directly involved in the groundfish fisheries are expected to substantially exceed the agency costs associated with Alternative 2. Alternative 2 will decrease the costs that the PSC limits will impose on the trawl fishery and it will decrease some of the inequities associated with the distribution of those costs among fishing operations. It does this through the use of civil penalties that will reduce the externalities associate with decreasing bycatch rates. This is an administratively cumbersome method of reducing the

externalities. However, a more effective method is not available in a timely manner. Therefore, Alternative 2 is expected to provide a cost effective solution for 1991 and to provide information that can be used in the development of a more comprehensive, effective, equitable, and efficient long-term bycatch management regime.

IMPACT OF THE AMENDMENTS RELATIVE TO THE REGULATORY FLEXIBILITY ACT

The Regulatory Flexibility Act (RFA) requires that impacts of regulatory measures imposed on small entities (i.e., small business, small organizations, and small governmental jurisdictions with limited resources) be examined to determine whether a substantial number of such small entities will be significantly impacted by the measures. Fishing vessels are considered to be small business. A total of 1,500 vessels may fish for groundfish off Alaska in 1991, based on the anticipated number of Federal groundfish permits that will be issued for the 1991 fishing year. While these numbers of vessels are considered substantial, regulatory measures considered under Alternative 2 (the vessel incentive program) would only affect a small proportion of the fleet (150 - 200 trawl vessels).

FINDINGS OF NO SIGNIFICANT IMPACT

For the reasons discussed above, implementation of neither Alternative 1 nor 2 would significantly affect the quality of the human environment, and the preparation of an environmental impact statement on the final action is not required by Section 102(2)(c) of the National Environmental Policy Act or its implementing regulations.

Assistant Administrator for Fisheries

Date

Table 1--1990 bycatch rates, the tentative standards, and estimates of the resulting average bycatch rates by fishery and quarter.

Halibut bycatch as a percentage of groundfish catch			
Fishery and quarter	1990 bycatch rate	bycatch standard	resulting bycatch rate
BSAI Pacific cod			
Qt 1	1.35	0.89	0.89
Qt 2	1.85	1.05	0.96
Qt 3		no fishery in 1990	
Qt 4		no fishery in 1990	
BSAI flatfish			
Qt 1	1.31	0.94	0.92
Qt 2		no fishery in 1990	
Qt 3	0.17	0.17	0.17
Qt 4	0.19	0.19	0.19
GOA rockfish			
Qt 1	2.91	1.17	1.12
Qt 2	3.31	1.89	1.65
Qt 3	1.96	0.94	0.83
Qt 4	8.49	0.25	0.01
GOA Pacific cod			
(with standard based on cod fishery bycatch rates)			
Qt 1	3.31	0.52	0.33
Qt 2	3.06	1.18	0.46
Qt 3	3.29	1.04	0.42
Qt 4	5.15	1.24	0.48
(with standard based on rockfish fishery bycatch rates)			
Qt 1	3.31	1.17	0.62
Qt 2	3.06	1.89	0.99
Qt 3	3.29	0.94	0.29
Qt 4	5.15	0.25	0.17

Table 1--(continued)

Zone 1 red king crab bycatch rates
(crab/mt of groundfish)

Fishery and quarter	1990 bycatch rate	bycatch standard	resulting bycatch rate
BSAI flatfish			
Qt 1	2.88	1.70	0.56
Qt 2-4	no fishery in Zone 1 in 1990		

Note the following:

1. The estimates of the resulting average bycatch rates were generated by eliminating vessel month observations which exceeded a standard by more than 100%.
2. For the BSAI, bycatch rates are calculated using the sum of the catch of the major groundfish species.
3. For the GOA, bycatch rates are calculated using the sum of the catch of all groundfish species excluding non-allocated species.
4. Observer Program data from the 1986-89 joint venture fisheries will be used, to the extent possible, to estimate bycatch rates, establish standards, and estimate the effects of those standards on average bycatch rates for the fisheries and quarters for which there was no fishing in 1990.

COORDINATION WITH OTHERS

North Pacific Fishery Management Council
P.O. Box 103136
Anchorage, Alaska 99510

NMFS, Alaska Region
P.O. Box 21668
Juneau, Alaska 99802

NMFS, Alaska Fisheries Science Center
7600 Sand Point Way N.E., Building 4
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11-29-90 Draft

AGENDA D-1(a)
SUPPLEMENTAL
DECEMBER 1990

Billing Code: 3510-22

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

50 CFR Parts 672 and 675

[Docket No.]

[RIN 0648-ADxx]

Groundfish of the Gulf of Alaska, Groundfish Fishery of the
Bering Sea and Aleutian Islands Area

AGENCY: National Marine Fisheries Service (NMFS), NOAA, Commerce.

ACTION: Proposed rule; request for comments.

SUMMARY: NOAA proposes a rule that would implement a revision to Amendment 16 to the Fishery Management Plan (FMP) for the Groundfish Fishery of the Bering Sea and Aleutian Islands Area (BSAI) and to Amendment 21 to the FMP for Groundfish of the Gulf of Alaska (GOA). These regulations are proposed to enhance prohibited species bycatch management in the BSAI and GOA and would hold individual trawl vessels accountable for their bycatch of halibut and red king crab while participating in specified groundfish fisheries. This action is necessary to promote management and conservation of groundfish and other fish resources. It is intended to further the goals and objectives contained in both FMPs that govern these fisheries.

DATE: Comments are invited until [insert date ?? days after date of filing for public inspection by the Office of the Federal Register].

ADDRESS: Comments may be sent to Steven Pennoyer, Director, Alaska Region, National Marine Fisheries Service, P.O. Box 21668, Juneau, AK 99802. Individual copies of the revised Amendments 16 and 21 and the environmental assessment/regulatory impact review/initial regulatory flexibility analysis (EA/RIR/IRFA) may be obtained from the North Pacific Fishery Management Council, P.O. Box 103136, Anchorage, AK 99510. Comments on the environmental assessment are particularly requested.

FOR FURTHER INFORMATION CONTACT: Susan J. Salveson, Fishery Management Biologist, NMFS, 907-586-7230.

SUPPLEMENTARY INFORMATION:

Background

The domestic and foreign groundfish fisheries in the Exclusive Economic Zone (EEZ) of the GOA and BSAI areas are managed by the Secretary according to FMPs prepared by the North Pacific Fishery Management Council (Council) under the authority of the Magnuson Fishery Conservation and Management Act (Magnuson Act). The FMPs

are implemented by regulations for the foreign fishery at 50 CFR Part 611 and for the U.S. fishery at 50 CFR Parts 672 and 675. General regulations that also pertain to the U.S. fishery are implemented at 50 CFR Part 620.

Trawl, hook-and-line, and pot groundfish fisheries use partially non-selective harvesting techniques in that incidental (bycatch) species, including crab, halibut, and herring are taken in addition to targeted groundfish species. A conflict occurs when bycatch in one fishery reduces the amount of a species available for harvest in another fishery. Bycatch management is an attempt to balance the effects of various fisheries on each other. It is a particularly contentious allocation issue, because compared to crab, halibut, or herring fishermen, groundfish fishermen value the use of crab, halibut, or herring very differently.

At its June 25-30, 1990, meeting, the Council adopted Amendments 16 and 21 for submission to the Secretary of Commerce (Secretary) for review and approval. The proposed rule to implement the amendments addressed several bycatch management measures, including a proposed program that would encourage individual groundfish vessel operators to avoid excessive bycatch rates of prohibited species (55 FR 38347, September 18, 1990). The Council anticipated that this vessel incentive program, commonly referred to as the "penalty box" program, would reduce overall prohibited species bycatch rates within the BSAI and GOA groundfish fisheries. On November 9, 1990, the Secretary approved the

management measures set forth in Amendments 16 and 21 except for the proposed penalty box program.

The Secretary disapproved the penalty box program proposed under Amendments 16 and 21, because it was inconsistent with national standard 7 of the Magnuson Act and the Administrative Procedure Act. The Council intended that the proposed program would identify and penalize vessels that fail to meet acceptable halibut bycatch rate standards that would be established for 17 separate fisheries in the BSAI and GOA. The proposed rule would have required vessels in each fishery to maintain a 4-week average bycatch rate less than two times the concurrent fleet average in each of the fisheries. Failure of a vessel to meet such bycatch rate standards would have resulted in a suspension of the vessel from the Alaskan groundfish fishery for a period ranging from five days to six weeks.

Under the proposed penalty box program, costs would have been incurred for additional research, administration, and enforcement without a real benefit to the industry and the resource. Subsequent to Council adoption of the proposed penalty box program, NMFS' analyses of the 1990 observer database indicated that numerous revisions to the database occur after observers are debriefed and their data are verified, which could take up to six months. Without verified, statistically reliable observer data, the proposed penalty box program would not be enforceable. If violations could not be enforced, the intended benefit of the proposed program -- to reduce bycatch and protect, conserve, and

manage the resource -- would not be realized. The proposed program, therefore, did not meet the requirements of national standard 7. Moreover, the intent of the Council for inseason action against vessels that fail to meet acceptable bycatch standards could not be met, because enforcement actions generally would occur post-season. In effect, the time period required to develop a verified observer database to enforce the proposed incentive program would preempt the use of vessel suspensions as an effective inseason enforcement action, undermine the general effectiveness of vessel suspensions for enforcement purposes, and increase administrative costs associated with enforcement procedures without accomplishing the intended enforcement purposes.

The ineffectiveness of vessel suspensions could result from a number of situations in which vessel suspensions do not occur at an appropriate time. For example, vessel operators and/or owners could be issued a suspension notice after a vessel operator has left the vessel; fishing areas could be closed prior to vessel suspensions due to the attainment of a groundfish quota or prohibited species bycatch allowance; or the vessel could undergo a suspension period as part of its routine maintenance schedule. Administrative costs would be incurred, therefore, without accomplishing the intended purpose of the program, and would not be minimized as required by national standard 7 of the Magnuson Act. For these reasons, therefore, the proposed penalty box program would have violated national standard 7.

A vessel incentive program also must conform to requirements of other applicable law, including the Administrative Procedure Act. This Act requires that regulations be reasonable and effective. Data on which the proposed penalty box program would have been implemented were not reasonable. Domestic observer data collected to date are insufficient to judge whether intrinsic variability of inseason fishery bycatch rates would support the use of four-week fleet averages as a basis for acceptable bycatch rate standards within each of the 17 groundfish fisheries that would have been monitored under the penalty box program. This problem would have been aggravated to the extent that definitions for different fisheries encompassed by the penalty box program under Amendments 16 and 21 would have been based on species composition of catch that may not truly reflect intrinsic bycatch rates of target operations. Furthermore, the proposed penalty box program would have resulted in ineffective enforcement action against vessels that violated bycatch rate standards. For these reasons, the proposed vessel incentive program would be arbitrary and capricious and, therefore, would have violated the Administrative Procedure Act.

Given the above determinations, the Director, NMFS, Alaska Region (Regional Director) notified the Council that the penalty box program proposed under Amendments 16 and 21 could not be implemented. Under section 304(b)(2) of the Magnuson Act, the Regional Director also made recommendations concerning actions that the Council could take towards the development of a 1991 vessel

incentive program that would conform to the requirements of applicable law.

Based on these recommendations, the Council adopted a revised vessel incentive program during a November 15, 1990, teleconference meeting for resubmission to the Secretary for review and approval under section 304(b)(3) of the Magnuson Act. The need and justification for a vessel incentive program to reduce prohibited species bycatch are discussed below, along with a description of the specific elements of the vessel incentive program proposed under the revised Amendments 16 and 21.

Justification of a vessel incentive program

The groundfish fishery results in incidental fishing mortality of crab, halibut, and other prohibited species. This use of crab and halibut is one of several competing uses of these resources. These resources also can be used as current or future target catch in the crab or halibut fisheries, respectively. The future use as catch necessarily requires that the crab or halibut are left in the sea to contribute to the productivity of the crab or halibut stocks. These species also can be left in the sea to contribute to other components of the ecosystem, or they can be used as incidental fishing mortality in the groundfish fisheries.

Existing regulations establish prohibited species catch (PSC) limits to control the bycatch of crab and halibut in the groundfish trawl fisheries in the BSAI, and halibut in the groundfish trawl, hook-and-line, and pot fisheries in the GOA. In 1990, the PSC

limits resulted in the closures of specified trawl and hook-and-line fisheries and associated reductions in groundfish catch that imposed costs on those who would have benefited from continued fishing in the closed fisheries.

For a given PSC limit, or apportionment thereof, the amount of groundfish that can be harvested prior to a PSC limit induced closure is determined by the average bycatch rate of the fishery. A PSC limit, therefore, arguably provides fishermen an incentive to reduce bycatch rates. Unfortunately, although an increase in the amount of groundfish that can be harvested by reduced bycatch rates is in the best interest of the groundfish fleet as a whole, each individual operation will likely ignore bycatch and harvest groundfish rapidly so that its catch expectations can be met prior to the closure of the fishery.

This situation results in unnecessarily high bycatch rates, which will cause a given PSC limit to be reached more quickly. A much higher cost on the fishery will be imposed through lost opportunity to harvest available groundfish. A fishing operation that takes action to reduce its bycatch rate bears the costs of doing so in terms of decreased catch or increased operating costs. But it does not receive benefits that are proportional to either its success in reducing bycatch or the cost of doing so. An operation that takes no action to control its bycatch rates will not bear such costs nor will it bear much of the cost that it imposes on the fishery as a whole by having a high bycatch rate. However, such an operation may receive a disproportionately large

share of the benefit from the actions taken by others to reduce the fishery's average bycatch rate. The problems are that: (1) external costs and benefits provide each operation with incentives to do what is counter to the best interests of the fishery as a whole and (2) the actions of a few operations can impose substantial costs on the rest of the fleet.

The penalty box program adopted by the Council as part of Amendments 16 and 21 was intended to provide a partial solution to these problems by reducing the magnitude of the external benefits and costs. The vessel incentive program proposed under the revised Amendments 16 and 21, discussed below, is intended to serve the same purpose. The purposes of the revised incentive program are similar to those of the program that was disapproved in that the program primarily is intended to decrease the costs that the PSC limits would impose on the trawl fisheries in 1991 and secondarily is intended to provide guidance for future development of a comprehensive, effective, equitable, and efficient long-term bycatch management regime. The revised vessel incentive program differs from the penalty box program in that it would: (1) be applied to fewer fisheries in the BSAI and GOA; (2) be based on seasonal fixed bycatch rate standards; and (3) rely upon civil penalties, civil forfeitures, and permit sanctions authorized under sections 307 - 310 of the Magnuson Act that could be effectively assessed against violators post-season.

**Description of the vessel incentive program under the revised
Amendments 16 and 21**

1. Scope of the vessel incentive program.

Under the revised program, penalties would be imposed after observers have been fully debriefed and their data analyzed and verified. In most cases, this could result in post-season action against vessels that have exhibited bycatch rates in excess of established bycatch rate standards.

The revised incentive program would encompass: (1) halibut bycatch in the BSAI and GOA Pacific cod trawl fisheries, the BSAI flatfish fisheries, and the GOA "bottom rockfish" trawl fishery; and (2) red king crab bycatch in the BSAI flatfish fisheries. All catcher/processor vessels and catcher vessels (including those that deliver unsorted codends to mothership processors) which participate in these fisheries and for which observer data are collected would be participants in the incentive program.

Given NMFS' operational and administrative constraints to monitor and enforce a vessel incentive program in 1991, the Council selected the Pacific cod, rockfish, and flatfish trawl fisheries for inclusion under the revised vessel incentive program. These fisheries were selected, because they either: (1) have been identified by NMFS and the groundfish industry as having relatively high halibut or crab bycatch rates; (2) are the most affected by existing PSC limit restrictions; or (3) would provide the most benefit to other groundfish trawl fisheries in terms of reduced

prohibited species bycatch rates and increased opportunity to harvest groundfish under shared bycatch allowances.

2. Fishery Definitions.

Target fishery definitions for the BSAI and GOA groundfish trawl fisheries are based on at-sea observer data on groundfish catch composition and corresponding prohibited species bycatch rates collected from the 1990 domestic annual processing (DAP) fisheries. The analysis from which the following definitions are derived is set forth in the EA/RIR/IRFA prepared for the revised Amendments 16 and 21. The hierarchy of target fishery categories presented below for the BSAI and the GOA fishery definitions are based on NMFS' examination of historical observer data on groundfish catch composition and how closely a fishery's groundfish catch composition reflected intended target operations.

BSAI fisheries. At the end of each weekly reporting period, a bottom trawl vessel's observed BSAI groundfish catch composition of species for which a total allowable catch (TAC) has been established would be used to assign it to one of five fisheries for that week. The first of the following five categories which is met would determine the fishery assignment of a vessel.

1. Greenland turbot fishery if Greenland turbot is at least 35% of the vessel's groundfish catch.
2. Pacific cod fishery if Pacific cod is at least 45% of the vessel's groundfish catch.

3. Rock sole fishery if rock sole is at least 40% of the vessel's groundfish catch.
4. Yellowfin sole/other flatfish fishery if yellowfin sole/other flatfish is at least 40% of the vessel's groundfish catch.
5. Other bottom trawl fishery if pollock is less than 95% of the vessel's groundfish catch.

The distinction between the rock sole and yellowfin sole/other flatfish fisheries would be used for monitoring the separate prohibited species bycatch allowances established for these fisheries. For purposes of the vessel incentive program, however, they both would be part of the flatfish fishery. Similarly, the definition of the turbot fishery would be used to monitor the bycatch allowances established for the turbot fishery. Neither the turbot fishery nor the other bottom trawl fishery would be included in the vessel incentive program for the BSAI.

GOA fisheries. Each week a bottom trawl vessel's observed GOA groundfish catch of the TAC species, excluding arrowtooth flounder, would be used as a basis for assigning it to one of three fisheries for that week. Arrowtooth flounder would be excluded because, although this species may comprise a large percent of groundfish catch, it typically is not retained. The first of the following three categories which is met would determine the fishery assignment of a vessel.

1. Pacific cod fishery if Pacific cod is at least 45% of the vessel's groundfish catch.
2. Rockfish fishery if rockfish (slope rockfish, demersal shelf rockfish, and thornyhead rockfish, in the aggregate) is at least 30% of the vessel's groundfish catch.
3. Other bottom trawl fishery if pollock is less than 95% of the vessel's groundfish catch.

The other bottom trawl fishery would not be included in the vessel incentive program for the GOA.

3. Bycatch rate standards.

Red king crab and halibut bycatch rate standards for vessels in the monitored fisheries would be based on seasonal fixed rates. The use of seasonal bycatch rate standards would allow for seasonality in the factors that affect bycatch rates. The seasonal rates would be established semi-annually. For purposes of this rulemaking, seasonal rates based on calendar quarters are proposed, although additional data collected from the groundfish fisheries may indicate that seasonal rates based on other than calendar quarters may be more appropriate.

The halibut bycatch rate standards would be based on average bycatch rates observed in the BSAI or GOA. The red king crab bycatch rate standards established for the BSAI flatfish fisheries would be based on bycatch rates observed in Zone 1. Compliance with red king crab bycatch rate standards also would be monitored

only for Zone 1 for the following reasons: (1) the red king crab PSC limit is established only for Zone 1; and (2) lower red king crab bycatch rates in Zone 2 may entice vessel operators to fish in that zone to reduce their average red king crab rate, resulting in high halibut bycatch rates to the extent that halibut bycatch rates are higher outside of Zone 1.

Separate halibut bycatch rate standards would be established for the BSAI Pacific cod and flatfish fisheries. Based on comments from industry representatives, a single set of bycatch rate standards are proposed to be used for the GOA Pacific cod and bottom trawl rockfish fisheries to reduce the cost of establishing, administering, and enforcing separate standards for these two fisheries. The bycatch rates in the rockfish fishery were not expected to be sufficiently greater than those in the cod fishery to prevent standards based on historical halibut bycatch rates for the rockfish fishery from being appropriate for the cod fishery. Initial analyses of 1990 data, however, indicate that bycatch rates in the rockfish and Pacific cod fisheries differ significantly. This difference may require that separate rates be established for the GOA rockfish and Pacific cod fisheries. Notwithstanding the question of whether NMFS can accommodate the additional administrative and enforcement costs associated with separate bycatch rate standards, NOAA specifically requests comments on the practicality and desirability of doing so.

Prior to January 1 and July 1 of each year, bycatch rate standards would be published in the FEDERAL REGISTER that would be

in effect for specified seasons within the six-month periods of January 1 through June 30 and July 1 through December 31, respectively. Such rates would remain in effect until revised by a subsequent notice in the FEDERAL REGISTER. Revisions to bycatch rate standards may be made as often as appropriate. Seasonal bycatch rate standards for a fishery and revisions to those standards would be based on prior seasonal bycatch rates and other relevant criteria, including:

- (A) Previous years' average observed bycatch rates for the fishery;
- (B) Immediately preceding season's average observed bycatch rates for the fishery;
- (C) The prohibited species bycatch allowances and associated fishery closures specified for the fishery;
- (D) Anticipated groundfish harvests for that fishery.
- (E) Anticipated seasonal distribution of fishing effort for groundfish; or
- (F) Other information and criteria deemed relevant by the Regional Director.

Based on the analysis presented in the EA\RIR\IRFA, bycatch rate standards are proposed for the first and second quarters of 1991 in Table 1. Although Table 1 also presents third and fourth quarter standards, these values are preliminary and would be established through subsequent rulemaking.

The proposed bycatch rate standards are based on average bycatch rates observed in the 1990 DAP trawl fisheries for Pacific cod, flatfish, and rockfish fisheries. For each fishery and quarter for which sufficient data are available, Table 1 shows: (1) the average bycatch rate for all vessels; (2) the proposed bycatch rate standard set equal to the average bycatch rate exhibited by vessels with the lowest bycatch rates but that account for about 80% of the catch; and (3) an estimate of the effect of the standard described in (2) in terms of assumed average bycatch rate of all vessels. In some cases, the small number of observations prevents the identification and use of the bycatch rate associated with the 80% of the catch with the lowest bycatch rates. For the GOA, halibut bycatch rates are presented as a percentage of groundfish catch excluding arrowtooth flounder.

The estimate of the effect of a standard on the average bycatch rate of a fishery is speculative. The estimates presented in Table 1 were generated by eliminating the bycatch rates of vessels with a bycatch rate greater than twice the standard. The implicit assumptions are that no operation will exceed the standard by more than 100% and that those that did in 1990 would have taken actions such that their bycatch performance would have duplicated that of operations that did not exceed the standard by more than 100%.

Table 1--1990 bycatch rates, the tentative standards, and estimates of the resulting average bycatch rates by fishery and quarter.

Halibut bycatch as a percentage of groundfish catch

Fishery and quarter	1990 bycatch rate	bycatch standard	resulting bycatch rate
BSAI Pacific cod			
Qt 1	1.35	0.89	0.89
Qt 2	1.85	1.05	0.96
Qt 3		no fishery in 1990	
Qt 4		no fishery in 1990	
BSAI flatfish			
Qt 1	1.31	0.94	0.92
Qt 2		no fishery in 1990	
Qt 3	0.17	0.17	0.17
Qt 4	0.19	0.19	0.19
GOA rockfish			
Qt 1	2.91	1.17	1.12
Qt 2	3.31	1.89	1.65
Qt 3	1.96	0.94	0.83
Qt 4	8.49	0.25	0.01
GOA Pacific cod			
	(with standard based on cod fishery bycatch rates)		
Qt 1	3.31	0.52	0.33
Qt 2	3.06	1.18	0.46
Qt 3	3.29	1.04	0.42
Qt 4	5.15	1.24	0.48
	(with standard based on rockfish fishery bycatch rates)		
Qt 1	3.31	1.17	0.62
Qt 2	3.06	1.89	0.99
Qt 3	3.29	0.94	0.29
Qt 4	5.15	0.25	0.17

Table 1--(continued)

Zone 1 red king crab bycatch rates
(crab/mt of groundfish)

Fishery and quarter	1990 bycatch rate	bycatch standard	resulting bycatch rate
BSAI flatfish			
Qt 1	2.88	1.70	0.56
Qt 2-4	no fishery in Zone 1 in 1990		

Note the following:

1. The estimates of the resulting average bycatch rates were generated by eliminating vessel month observations which exceeded a standard by more than 100%.
2. For the BSAI, bycatch rates are calculated using the sum of the catch of the major groundfish species.
3. For the GOA, bycatch rates are calculated using the sum of the catch of all groundfish species excluding non-allocated species.
4. Observer Program data from the 1986-89 joint venture fisheries will be used, to the extent possible, to estimate bycatch rates, establish standards, and estimate the effects of those standards on average bycatch rates for the fisheries and quarters for which there was no fishing in 1990.

4. Fishery checkpoints and penalties.

At the end of each fishing month, the average observed bycatch rate of red king crab and/or halibut for each vessel assigned to the BSAI flatfish fishery, the BSAI/GOA Pacific cod fisheries or the GOA bottom rockfish fishery during that month would be judged against the fixed seasonal bycatch rate standard established for those fisheries. If the vessel's average bycatch rate for a fishing month exceeds a seasonal bycatch rate standard, the vessel would be in violation of the regulations implementing the vessel incentive program and be subject to prosecution under sections 307 - 310 of the Magnuson Act.

General Counsel, Alaska Region (GCAK) has discretion to assess penalties for violations of Magnuson Act regulations. In determining the level of assessment for violations of this rule, GCAK may take into account a number of factors, which could include resource or economic damage to the groundfish trawl fishery, relevant participation in voluntary programs designed to reduce prohibited species bycatch, and culpability of the vessel operator/owner. A vessel operator/owner who failed to meet established bycatch rate standards at the end of a fishing month could be subject to several violations, one for each weekly reporting period during the month that the standard was exceeded. Under recently signed amendments to the Magnuson Act, each violation would carry a maximum civil penalty of \$100,000, so total civil penalties for a monthly period could total a maximum of \$400,000 - 500,000. Possible sanctions in addition to civil

penalties include permit sanctions and judicial forfeiture of the vessel and its catch.

5. Public Release of Vessel Bycatch Rates.

The Council has adopted a proposed regulatory amendment to the observer plan that would give NMFS the authority to publicize unverified observed bycatch rates of individual vessels inseason. If such authority is approved, NMFS would have the option of posting unverified weekly observed bycatch rates that could be used by vessel operators as guidance on whether or not changes in fishing practices are necessary to meet bycatch performance standards. At a minimum, NMFS would continue to release a vessel's unverified observed bycatch rate to the vessel's operator or owner upon request. Whether or not NMFS exercises authority for public release of observed bycatch rates, inseason weekly rates available to the industry would continue to be based on unverified observer data and subject to verification as observers are debriefed and their data are analyzed.

Classification

Upon receipt of a revised amendment from a Council, section 304(b)(3)(B) of the Magnuson Act, as amended by Pub. L. No. 99-659, requires the Secretary to immediately publish proposed regulations that would implement the revised amendments. At this time, the Secretary has not determined that the revised Amendments 16 and 21

and the accompanying regulations that would implement a vessel incentive program are consistent with the national standards, other provisions of the Magnuson Act, and other applicable law. The Secretary, in making that determination, will take into account the data, views, and comments received during the comment period.

The Council prepared an environmental assessment (EA) for these FMP amendments that discusses the impact on the environment as a result of this rule. A copy of the EA may be obtained from the Council at the address above and comments on it are requested.

The Under Secretary for Oceans and Atmosphere, NOAA, determined that the proposed rule is not a "major rule" requiring a regulatory impact analysis under Executive Order 12291. The Council prepared a regulatory impact review, which concludes that none of the proposed measures in this rule would cause impacts considered significant for purposes of this Executive Order. A copy of the review is available from the Council at the address listed above.

The Council prepared an initial regulatory flexibility analysis as part of the regulatory impact review which concludes that this proposed rule, if adopted, would have significant effects on small entities. A copy of this analysis is available from the Council at the address listed above.

This proposed rule does not contain a collection of information requirement for purposes of the Paperwork Reduction Act.

The Council determined that this rule, if adopted, will be implemented in a manner that is consistent to the maximum extent practicable with the approved coastal zone management program of Alaska. This determination has been submitted for review by the responsible State agencies under section 307 of the Coastal Zone Management Act.

This proposed rule does not contain policies with federalism implications sufficient to warrant preparation of a federalism assessment under Executive Order 12612.

List of Subjects in 50 CFR Parts 672 and 675

Fisheries, Fishing vessels.

Dated:

Assistant Administrator for Fisheries
[or his designee]

For the reasons set out in the preamble, 50 CFR Parts 672 and 675 are proposed to be amended as follows:

PART 672 - GROUND FISH OF THE GULF OF ALASKA

1. The authority citation for part 672 reads as follows:

Authority: 16 U.S.C. 1801 et seq.

2. In section 672.7, a new paragraph (e) is added as follows:

§ 672.7 GENERAL PROHIBITIONS

* * * * *

(e) Exceed a bycatch rate standard specified under §672.26.

3. A new section 672.26 is added as follows:

§672.26. Program to reduce prohibited species bycatch rates.

(a) General. (1) A vessel's average observed bycatch rate, as calculated at the end of a fishing month under paragraph (d) of this section, while participating in the fisheries identified in paragraph (b) of this section, shall not exceed bycatch rate standards specified in paragraph (c) of this section.

(2) Definitions for purposes of this section.

(i) "Observed" refers to data collected by observers who are certified under the NMFS Observer Program authorized under section 672.27. Only data from observers who have been debriefed and their data checked, verified, and analyzed by NMFS will be used to calculate vessel bycatch rates for purposes of this section.

(ii) "Bycatch rate" refers to the ratio of weight of halibut in kilograms to the total round weight, in metric tons, of groundfish listed in Table 1 of section 672.20.

(iii) "Fishing month" is defined as a time period calculated on the basis of weekly reporting periods as follows: each fishing month begins on the first day of the first weekly reporting period that has at least 4 days in the associated calendar month and ends on the last day of the last weekly reporting period that has at least 4 days in that same calendar month. Dates of each fishing month will be announced in the FEDERAL REGISTER notices published under paragraph (c)(2) of this section.

(b) Fisheries. A vessel will be subject to this section if the groundfish catch of the vessel is observed at any time during a weekly reporting period; and the vessel is assigned to either the Pacific cod fishery or the bottom rockfish fishery as defined in paragraphs (b)(1) and (2) of this section. The species composition of a vessel's observed groundfish catch during a weekly reporting period will determine the fishery to which the vessel is assigned.

(1) The Pacific cod fishery means trawl fishing which results in an observed groundfish catch during a weekly reporting period that is composed of 45 percent or more of Pacific cod.

(2) The bottom rockfish fishery means trawl fishing which does not qualify as a Pacific cod fishery under paragraph (b)(1) of this section and which results in an observed groundfish catch during a weekly reporting period that is comprised of 30 percent or more of slope rockfish, demersal shelf rockfish, and thornyhead rockfish, in the aggregate, as those species categories are defined in Table 1 of section 672.20.

(c) Bycatch rate standards. (1) Establishment of bycatch rate standards. (i) Prior to January 1 and July 1 of each year, the Regional Director will publish a notice in the FEDERAL REGISTER specifying bycatch rate standards for the fisheries identified in paragraph (b) of this section that will be in effect for specified seasons within the six-months' periods of January 1 through June 30 and July 1 through December 31, respectively. Bycatch rate standards will remain in effect until revised by a notice in the FEDERAL REGISTER. The Regional Director may adjust bycatch rate standards as frequently as he considers appropriate.

(ii) Bycatch rate standards for a fishery and adjustments to such standards will be based on the following information and considerations:

(A) Previous years' average observed bycatch rates for that fishery;

(B) Immediately preceding season's average observed bycatch rates for that fishery;

(C) The bycatch allowances and associated fishery closures specified under section 672.20(f).

(D) Anticipated groundfish harvests for that fishery.

(E) Anticipated seasonal distribution of fishing effort for groundfish.

(F) Other information and criteria deemed relevant by the Regional Director.

(2) Procedure. (i) Bycatch rate standards or adjustments to such standards specified under this section will not take effect until:

(A) The Secretary has filed proposed bycatch rate standards or adjustments to such standards for public inspection with the Office of the FEDERAL REGISTER; and

(B) The Secretary has published the proposed bycatch rate standards or adjustments to such standards in the FEDERAL REGISTER for public comment for a period of thirty (30) days before they are made effective, unless the Secretary finds for good cause that such notice and public procedure is impracticable, unnecessary, or contrary to the public interest.

(ii) If the Secretary decides, for good cause, that bycatch rate standards or adjustments to such standards are to be made effective without affording a prior opportunity for public comment, public

comments on the necessity for, and extent of, bycatch rate standards or adjustments to such standards will be received by the Regional Director for a period of fifteen (15) days after the effective date of the notice.

(iii) During any such 15-day period, the Regional Director will make available for public inspection, during business hours, the aggregate data upon which bycatch rate standards or adjustments to such standards were based.

(iv) If written comments are received during any such 15-day period which oppose or protest bycatch rate standards or adjustments to such standards issued under this section, the Secretary will reconsider the necessity for the bycatch rate standards or adjustment to such standards and, as soon as practicable after that reconsideration, will either;

(A) Publish in the FEDERAL REGISTER a notice of continued effectiveness of bycatch rate standards or adjustment to such standards, responding to comments received; or

(B) Modify or rescind bycatch rate standards or adjustment to such standards.

(v) Notices of adjustments to bycatch rate standards issued by the Secretary under paragraph (c) of this section will include the following information:

(A) A description of the adjustment to one or more bycatch rate standards specified for a fishery;

(B) The reasons for the adjustment and the determinations required under paragraph (c)(1)(ii) of this section; and

(C) The effective date and any termination date of such adjustment. If no termination date is specified, the adjustment will remain in effect until revised by subsequent notice in the FEDERAL REGISTER under paragraph (c) of this section.

(d) Vessel bycatch rates. (1) Observer data. Observer data will be collected under the procedures set forth in the Observer Plan authorized under section 672.27. For purposes of this section, observer data collected for each haul sampled during a day will include the date, position (latitude and longitude) where trawl gear for the haul was retrieved, total round weight of groundfish in the portion of the haul sampled by an observer by groundfish species or species group specified in Table 1 of section 672.20, and number and weight of halibut in the portion of the haul sampled by the observer.

(2) Calculation of individual vessel observed bycatch rate.

(i) For each vessel, the Regional Director will aggregate the observer data collected on round weight catch composition of groundfish sampled on that vessel during a weekly reporting period to determine to which fishery the vessel should be assigned for that week.

(ii) If the Regional Director determines that a vessel should be assigned to a fishery described in paragraph (b) of this section during a weekly reporting period, he will calculate an average bycatch rate for all hauls sampled by an observer during that week based on the observer data collected from those hauls under paragraph (d)(1).

(A) A vessel's average bycatch rate for a weekly reporting period is calculated as the total weight of halibut (in kilograms) observed in all haul samples during that week divided by the total weight of the haul samples (in metric tons).

(3) Determinations. (i) At the end of each fishing month, the Regional Director will calculate each vessel's average observed bycatch rate for each fishery identified under paragraph (b) that the vessel was assigned to during the weekly reporting periods of that fishing month.

(A) A vessel's average bycatch rate for a fishery during a fishing month is calculated as the total weight of halibut (in kilograms) observed in all haul samples during all weekly reporting periods of that month that the vessel was assigned to each fishery identified under paragraph (b) of this section divided by the total weight of the haul samples (mt).

(ii) A vessel has exceeded a bycatch rate standard if its average observed bycatch rate for each fishery defined in paragraph (b) at the end of a fishing month exceeds the bycatch rate standard established for that fishery under paragraph (c) of this section.

PART 675 - GROUND FISH OF THE BERING SEA AND ALEUTIAN ISLANDS AREA

4. The authority citation for part 675 reads as follows:

Authority: 16 U.S.C. 1801 et seq.

5. In section 675.7, a new paragraph (f) is added as follows:

§ 675.7 General prohibitions

* * * * *

(e) Exceed a bycatch rate standard specified under §675.26.

6. A new section 675.26 is added as follows:

§675.26. Program to reduce prohibited species bycatch rates.

(a) General. (1) A vessel's average observed bycatch rate, as calculated at the end of a fishing month under paragraph (d) of this section, while participating in the fisheries identified in paragraph (b) of this section, shall not exceed bycatch rate standards specified in paragraph (c) of this section.

(2) Definitions for purposes of this section.

(i) "Observed" refers to verified data collected by observers who are certified under the NMFS Observer Program authorized under section 675.25. Only data from observers who have been debriefed

and their data checked, verified, and analyzed by NMFS will be used to calculate vessel bycatch rates for purposes of this section.

(ii) "Bycatch rate" refers to: (A) the ratio of weight of halibut in kilograms to the total round weight, in metric tons, of groundfish listed as "target species" and "other species" in Table 1 of section 675.20 while participating in the Pacific cod and flatfish fisheries as defined in paragraphs (b)(1) and (2) of this section; and (B) the ratio of number of red king crab to the total round weight, in metric tons, of groundfish listed as "target species" and "other species" in Table 1 of section 675.20 while participating in the flatfish fishery as defined in paragraph (b)(2) of this section.

(iii) "Fishing month" is defined as a time period calculated on the basis of weekly reporting periods as follows: each fishing month begins on the first day of the first weekly reporting period that has at least 4 days in the associated calendar month and ends on the last day of the last weekly reporting period that has at least 4 days in that same calendar month. Dates of each fishing month will be announced in the FEDERAL REGISTER notices published under paragraph (c)(2) of this section.

(b) Fisheries. A vessel will be subject to this section if the groundfish catch of the vessel is observed at any time during a weekly reporting period; and the vessel is assigned to either the Pacific cod fishery or the flatfish fishery as defined in paragraphs (b)(1) and (2) of this section. The species composition

of a vessel's observed groundfish catch during a weekly reporting period will determine the fishery to which the vessel is assigned.

(1) The Pacific cod fishery means trawl fishing which results in an observed groundfish catch during a weekly reporting period that is composed of 45 percent or more of Pacific cod.

(2) The flatfish fishery means trawl fishing which does not qualify as a Pacific cod fishery under paragraph (b)(1) of this section and which results in an observed groundfish catch during a weekly reporting period that is comprised of 40 percent or more of rock sole, yellowfin sole and "other flatfish", in the aggregate.

(c) Bycatch rate standards. (1) Establishment of bycatch rate standards. (i) Prior to January 1 and July 1 of each year, the Regional Director will publish a notice in the FEDERAL REGISTER specifying bycatch rate standards for the fisheries identified in paragraph (b) of this section that will be in effect for specified seasons within the six-months' periods of January 1 through June 30 and July 1 through December 31, respectively. Bycatch rate standards will remain in effect until revised by a notice in the FEDERAL REGISTER. The Regional Director may adjust bycatch rate standards as frequently as he considers appropriate.

(ii) Bycatch rate standards for a fishery and adjustments to such standards will be based on the following information and considerations:

(A) Previous years' average observed bycatch rates for that fishery;

(B) Immediately preceding season's average observed bycatch rates for that fishery;

(C) The bycatch allowances and associated fishery closures specified under section 675.21.

(D) Anticipated groundfish harvests for that fishery.

(E) Anticipated seasonal distribution of fishing effort for groundfish.

(F) Other information and criteria deemed relevant by the Regional Director.

(2) Procedure. (i) Bycatch rate standards or adjustments to such standards specified under this section will not take effect until:

(A) The Secretary has filed proposed bycatch rate standards or adjustments to such standards for public inspection with the Office of the FEDERAL REGISTER; and

(B) The Secretary has published the proposed bycatch rate standards or adjustments to such standards in the FEDERAL REGISTER for public comment for a period of thirty (30) days before they are made effective, unless the Secretary finds for good cause that such notice and public procedure is impracticable, unnecessary, or contrary to the public interest.

(ii) If the Secretary decides, for good cause, that bycatch rate standards or adjustments to such standards are to be made effective without affording a prior opportunity for public comment, public comments on the necessity for, and extent of, bycatch rate standards or adjustments to such standards will be received by the Regional Director for a period of fifteen (15) days after the effective date of the notice.

(iii) During any such 15-day period, the Regional Director will make available for public inspection, during business hours, the aggregate data upon which bycatch rate standards or adjustments to such standards were based.

(iv) If written comments are received during any such 15-day period which oppose or protest bycatch rate standards or adjustments to such standards issued under this section, the Secretary will reconsider the necessity for the bycatch rate standards or adjustment to such standards and, as soon as practicable after that reconsideration, will either;

(A) Publish in the FEDERAL REGISTER a notice of continued effectiveness of bycatch rate standards or adjustment to such standards, responding to comments received; or

(B) Modify or rescind bycatch rate standards or adjustment to such standards.

(v) Notices of adjustments to bycatch rate standards issued by the Secretary under paragraph (c) of this section will include the following information:

(A) A description of the adjustment to one or more bycatch rate standards specified for a fishery;

(B) The reasons for the adjustment and the determinations required under paragraph (c)(1)(ii) of this section; and

(C) The effective date and any termination date of such adjustment. If no termination date is specified, the adjustment will remain in effect until revised by subsequent notice in the FEDERAL REGISTER under paragraph (c) of this section.

(d) Vessel bycatch rates. (1) Observer data. Observer data will be collected under the procedures set forth in the Observer Plan authorized under section 675.25. For purposes of this section, observer data collected for each haul sampled during a day will include the date, position (latitude and longitude) where trawl gear for the haul was retrieved, total round weight of groundfish in the portion of the haul sampled by an observer by groundfish "target species" and "other species" listed in Table 1 of section 675.20, and weight of halibut and number of red king crab in the portion of the haul sampled by the observer.

(2) Calculation of individual vessel observed bycatch rate.

(i) For each vessel, the Regional Director will aggregate the observer data collected on round weight catch composition of

groundfish sampled on that vessel during a weekly reporting period to determine to which fishery the vessel should be assigned for that week.

(ii) If the Regional Director determines that a vessel should be assigned to a fishery described in paragraph (b) of this section during a weekly reporting period, he will calculate an average bycatch rate for all hauls sampled by an observer during that week based on the observer data collected from those hauls under paragraph (d)(1).

(A) A vessel's average bycatch rate for a weekly reporting period is calculated as the total weight of halibut (in kilograms) observed in all haul samples during that week divided by the total weight of the haul samples (in metric tons).

(3) Determinations. (i) At the end of each fishing month, the Regional Director will calculate each vessel's average observed bycatch rate for each fishery identified under paragraph (b) that the vessel was assigned to during the weekly reporting periods of that fishing month.

(A) A vessel's average bycatch rate for a fishery during a fishing month is calculated as the total weight of halibut (in kilograms) observed in all haul samples during all weekly reporting periods of that month that the vessel was assigned to each fishery identified under paragraph (b) of this section divided by the total weight of the haul samples (mt).

(ii) A vessel has exceeded a bycatch rate standard if its average observed bycatch rate for each fishery defined in paragraph (b) at the end of a fishing month exceeds the bycatch rate standard established for that fishery under paragraph (c) of this section.

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