

MEMORANDUM

TO: Council, SSC and AP Members

FROM: Clarence G. Pautzke
Executive Director



DATE: November 26, 1990

SUBJECT: General Groundfish

ACTION REQUIRED

- (b) Review the regulatory amendment to delay the BSAI flatfish season and provide clarification of Council intent.
- (c) Review pelagic trawl definition and take action as necessary.
- (d) Review regulatory amendment which would require that groundfish pots be fished on a single line. If approved, consider emergency action to implement the amendment in early 1991 if necessary.
- (e) Review regulatory amendment to change the GOA longline sablefish season and choose a preferred alternative.

BACKGROUND

Regulatory Amendment to Delay the BSAI Flatfish Season

In June, the Council requested NMFS to develop a regulatory amendment to postpone the yellowfin sole, Greenland turbot, and other flatfish seasons in the Bering Sea/Aleutian Islands until May 1. NMFS interpreted the request to exclude arrowtooth flounder, because arrowtooth was not specifically listed, and because most arrowtooth flounder catches at the time of the Council's request were occurring as bycatch with other flatfish.

The Notice of Proposed Rulemaking was published November 1, 1990 in the Federal Register, and public comments were invited through November 28, 1990. NMFS is now preparing a Notice of Final Rulemaking.

The Council should clarify its intent with respect to arrowtooth flounder. This species is becoming increasingly important as a target species. Because the intent of the flatfish season delay is to reduce bycatch rates of prohibited species, the season for arrowtooth flounder could be delayed with that for other flatfish species. NMFS will respond to Council intent, either in the final rule or through another proposed rule.

Pelagic Trawl Definition

At its September meeting, the Council voted to recommend to the Secretary to extend the emergency rule establishing a pelagic trawl definition. This definition, which contains no prohibition against chafe-protection gear on the foot rope, will remain in effect until the end of 1990. The following definition, as approved by the Council in September, will go into effect in 1991 based on Secretarial approval of the Amendment 16/21 package:

"a trawl which does not have discs, bobbins, rollers, or other chafe protection gear attached to the foot rope, but which may have weights on the wing tips and (1) which has stretched mesh sizes of at least 64 inches, as measured between knots, starting at all points on the fishing line, head rope, and breast lines and extending aft for a distance of at least 10 meshes from the fishing line, head rope, and breast lines and going around the entire circumference of the trawl, and which webbing is tied to the fishing line with no less than 20 inches between knots around the circumference of the net and which contains no inserts or collars or other configurations intended to reduce the mesh size of the forward section, or (2) which has parallel lines spaced no closer than 64 inches, or a combination of parallel lines and meshes with stretched mesh sizes of at least 64 inches, measured as described above, for a distance of at least 33 feet, and starting at all points on the fishing line, head rope, and breast lines and going around the entire circumference of the trawl."

The Council may wish to take this opportunity to make any comments to the Secretary regarding this definition before it goes into effect in January of 1991. For information purposes, item D-1(b-e)(1) is a NMFS news release comparing bycatch rates of pelagic and bottom trawls before and after the emergency rule went into effect which defined the pelagic trawl. This definition contained no prohibition of roller gear, but did include the larger mesh size. Information in this news release shows a decrease in the bycatch rates of both halibut and Tanner crab from the pelagic gear (after the rule went into effect) when compared to bottom trawl rates before the rule went into effect. The Council also has requested NMFS to develop a performance-based pelagic trawl definition and may want to establish a process for doing so during 1991, possibly facilitated by a committee of gear experts.

Regulatory Amendment for groundfish pots to be fished on single lines

At the September meeting, the Council instructed NMFS to proceed with a regulatory amendment which would require that groundfish pots be fished on single lines. This was in response to growing concerns over potential gear conflicts involving longline groundfish pot gear. Two industry letters supporting a ban on groundfish pot longlining are provided as item D-1(b-e)(2). An analysis of this regulatory amendment, in the form of an Environmental Assessment/Regulatory Impact Review (EA/RIR), is provided in your supplemental folder. Three alternatives are analyzed: (1) status quo - longlining of pots would be allowed, (2) groundfish pots could be fished only on single lines in the Gulf of Alaska, or (3) groundfish pots could be fished only on single lines in the Gulf and the Bering Sea/Aleutian Islands. If the Council selects alternative 2 or 3 as its preferred alternative, an emergency rulemaking would be necessary to implement the regulations early in 1991.

Regulatory Amendment for changing the Gulf of Alaska sablefish season opening date

Also at the September meeting, the Council instructed NMFS to proceed with an analysis of possible changes to the longline sablefish season opening dates in the Gulf of Alaska. A later opening date than the current April 1 opening would have the potential of reducing halibut bycatch rates in this fishery by delaying the start of sablefish fishing until halibut begin moving out of the areas where the majority of the sablefish effort is concentrated. Item D-1(b-e)(3) is an analysis of the alternatives before the Council. These alternatives include:

Status Quo: Open longline fishing on April 1

Alternative 1: Gulfwide opening on April 1; Gulfwide closure when Eastern Gulf closes; a re-opening of the Western and Central Gulf areas on July 1.

Alternative 2: Open longline fishing on May 1

Alternative 3: Open longline fishing on June 1

An industry letter supporting adoption of a May 1 opening date is included as item D-1(b-3)(4). If the Council chooses an alternative other than the status quo, the standard Regulatory Amendment process would enable the regulations to be in effect in time for the 1991 season.

NEWS RELEASE
 Steven Pennoyer
 907-586-7221

November 21, 1990
 For Immediate Release

OBSERVED BYCATCHES WHILE USING PELAGIC TRAWLS
 IN THE BERING SEA GROUND FISH FISHERY

On August 13, 1990, an emergency rule was implemented that redefined a pelagic trawl. The new definition required, in part, large meshes of at least one meter for a distance behind the fishing line, according to Steven Pennoyer, Director, Alaska Region, National Marine Fisheries Service. The purpose of the large meshes is to release halibut and crab that might be captured while the pelagic trawl is used on, or close to, the seabed. The emergency rule also requires that only pelagic trawls, as defined, could be used in the Bering Sea and Aleutian Islands groundfish fishery as a result of the halibut PSC limit being reached.

Several weeks have passed since the emergency rule was made effective. Some trawling is being conducted with pelagic trawls for Pacific cod. Bycatches of halibut or crab by trawl gear continues to be controversial. Speculation within the fishing industry is occurring as to what the bycatch rates of both halibut and crab are in the directed Pacific cod fishery. Some parties believe that the use of pelagic trawls does not reduce bycatches any more than bottom trawls. To provide constructive information to the fishing industry about actual bycatch rates, the Regional Director hereby provides information that compares bycatches of pelagic trawls after the emergency rule with bycatches of bottom trawls before the emergency rule. All bycatch rates are from the NMFS Observer Program through October 27, 1990. Observed bycatch rates with pelagic trawls before the emergency rule is also provided.

	BYCATCH RATES (kg/mt) IN PACIFIC COD FISHERY		
	Prior to August 13		August 13 and after
	Trawl		
	Pelagic	Bottom	Pelagic trawl
Halibut (kg/mt)	2.20	11.96	1.35
Crab (no./mt)			
Red king	0.00	0.10	0.00
Tanner	2.71	4.63	1.44

The bycatch rates of halibut and bairdi Tanner crab in pelagic trawls compared to bottom trawls decreased 89 and 69 percent, respectively. Detailed information on this analysis is available from NMFS.

For further information, contact Ron Berg, Fishery Management Biologist, NMFS at (907) 586-7230.

PETITION FOR EMERGENCY RULEMAKING

November 9, 1990

Dr. Don W. Collinsworth, Chairman
North Pacific Fishery Management Council
P.O. Box 1031136
Anchorage, AK 99501

Dear Dr. Collinsworth:

The undersigned respectfully request that that the Council consider and act on an emergency rule for implementation by January 1, 1991, which would require that groundfish pots be fished with single lines and buoys in both the Bering Sea/Aleutian Islands and Gulf of Alaska Areas.

An imminent crisis can be averted easily and equitably through implementation of this measure. Please consider the reasoning behind our request.

I. Problem Statement

It has recently become apparent that a large number of vessels will fish for Pacific cod for the first time in 1991, using pots. Many of these operators apparently intend to use pots on heavy longlines. The gear would be deployed in both the Gulf and the Bering Sea.

The serious difficulties presented by longlining with pots are familiar and easily understood. Pot longline gear is absolutely incompatible with traditional trawl and hook-and-longline gear, causing gear conflicts and grounds preemption. Lost pots ghost fish, and could create a substantial long-term biological problem. There was considerable industry testimony on these issues at the June and September Council meetings. For a more complete description of the problems posed by longlining with pots, please see the attached letter of October 12, 1990, addressed to Mr. Steve Pennoyer, and comments of the FVOA on Amendment 14 to the Gulf Groundfish Plan. See also the preamble and regulations implementing Amendment 14.

II. Precedent and Notice

Pot longlining ignited the firestorm of controversy leading to the adoption of Amendment 14, which among other things banned the use of pots in the Gulf sablefish fishery. The administrative record and regulations implementing Amendment 14 establish a clear policy precedent. The

current potential problem in the Pacific cod fishery is much the same as that of the sablefish fishery in 1985 - but it is of far greater magnitude, encompassing both the Gulf and the Bering Sea/Aleutian Islands Areas. This circumstance calls for action consistent with well-established precedent.

A prohibition against fishing for groundfish with pots on longlines was discussed at the June Council meeting, and was on the agenda for the September meeting. Considerable industry testimony was heard on the issue. The September Council Newsletter clearly states, "The council voted to proceed with development of regulatory amendments on...a ban on longlining of groundfish pots in the Gulf and Bering Sea...The Council's final decision will be in December." Anyone who might have forgotten the lesson of Amendment 14 has certainly been put on notice of impending Council action.

III. Alternatives and Equity

It should be emphasized that the requested emergency action would not eliminate pot fishing for Pacific cod. It would simply require that each pot have its own line and buoy. The red king crab and Tanner crab fisheries are prosecuted in this manner, largely to avoid the difficulties involved in pot longlining. Any crab fishermen wishing to fish for Pacific cod with modified crab pots could use the same lines and buoys. It should also be recognized that the Pacific cod fishery occurs in relatively shallow water where single pots can be pulled quickly and efficiently. Another alternative is the use of hook-and-longline gear, which is inexpensive and effective.

Imposition of the single line and buoy requirement would not greatly burden fishermen who wish to fish for Pacific cod with pots - but it would minimize the substantial burdens imposed on other gear types by pot longlining.

IV. An Emergency Rule Is Necessary

In December the council will make a final decision on a ban on longlining of groundfish pots in the Gulf and Bering Sea. We are advised that a regulation implementing this action could not get through the federal review process before mid-May if the Council acts in December, mid-June if the Council acts in January. Given the huge workload now faced by Council and NMFS staff, it must be asked whether these timetables could be met. An emergency rule appears necessary to implement this critical policy until a permanent regulation goes into force.

Thank you for your attention to this important matter.

R. Barry Paul

Midwater Trawlers' Assoc.

Thom Smith

Freezer-Longliner Group

Respectfully Submitted,

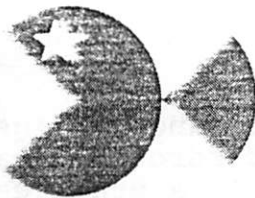
Eric Olsen FIV LORELEI II

President, FVOA

Douglas B. Jardo

AHSFA

Attachments.



October 12, 1990

Mr. Steve Pennoyer, Regional Director
National Marine Fisheries Service
Alaska Region
P.O. Box 21668
Juneau, Alaska 99802-1668

RE: Prohibition Against Longlining of Groundfish With Pots

Dear Steve:

During the September Council meeting a number of industry representatives requested that the Council and NMFS approve and implement a regulatory amendment prohibiting longlining for groundfish with pots. Pots on longlines are totally incompatible with traditional trawl and hook-and-line gear. One fisherman predicted an "upcoming gear war" pitting pot longliners against other fishermen. Experience suggests that we will have insurmountable gear conflicts and grounds preemption problems if longlining with pots is allowed. I sincerely hope that this practice will be prohibited immediately.

The Council was on the verge of approving a wise provision that groundfish pots be fished only on single lines with buoys when you pointed out that there had not been sufficient analysis of the issue for approval by the Secretary of Commerce. It was agreed unanimously that Alternative 1 - a prohibition against longlining of groundfish pots - would be expanded to include both the GOA and BSAI regions, and that an analysis would be prepared for a Council decision in December. This issue is of the utmost importance to the rational development of our groundfish fisheries. Council priorities notwithstanding, I hope that you as a manager will recognize the potential for disaster here and make sure that this priority project is completed before the December Council meeting. If fishermen make substantial investments in longline pot equipment a political constituency will evolve, and we will all have a never-ending battle on our hands. The time to act is now.

In addressing this question, please consider the following:

1. Pot Longline Gear Is Incompatible with Other Gear

The cables necessary to connect pots on a longline are very heavy, as are the pots, and it is virtually impossible to tell where a string of pots lies on the bottom. Buoys are difficult to see, and buoys at both ends of a string are

of no help on crowded grounds. Hook-and line gear is much lighter than pot cable, and is lost through entanglement or overlaying of the two gear types. As a practical matter it is impossible for fishermen to lay all their longline gear in the same direction or to otherwise coordinate their efforts to avoid conflicts - and any such regulation would be unenforceable. A limitation on the number of pots on a string will do little or nothing to solve these problems. Hook-and-line fishermen would simply be preempted from grounds used by pot longliners.

Trawlers have similar difficulties with pot longline gear. They cannot tell where it is located on the bottom. If they encounter a string of pots they are likely to damage their trawl gear and may leave a derelict string of lost pots on the bottom. Hook-and-line gear does not damage trawls. Like hook-and-line fishermen, trawlers would be preempted from grounds where pots on longlines are used.

2. The Problem Is Immediate and Substantial

I have been told that a large number of crab fishermen - catchers and catcher-processors - intend to engage for the first time in a longline pot fishery for Pacific cod after the crab season closes in March of 1991, using modified crab pots. The gear conflicts and grounds preemption problems of such a new longline fishery would create chaos.

3. Compatible Alternative Fishing Methods Are Available

Groundfish pots - or modified crab pots - can be fished with the same single lines and buoys used in the crab fisheries. Pulling pots one at a time might make the operations slightly less efficient, but this is a small price when compared with the huge externalities which pot longlining would impose on traditional gear types. Single marked pots are much easier to avoid.

Alternatively these vessels could use inexpensive hook-and-longline gear. There is no reason to think that they would be less efficient or successful than the rest of the longline fleet.

4. Bycatch Advantages of Pot Gear Are Minimal

In the Bering Sea NMFS figures indicate that to September 1, 1990, total halibut bycatch for all longline fisheries was 1,513 mt. At a mortality rate of 0.13 (NMFS/IPHC), only 197 mt of halibut were destroyed. This amount is de minimus. Even if pot gear kills fewer halibut than hook-and-line gear, the difference is tiny and is insignificant from a biological point of view. Certainly we should not risk chaos on the grounds for insignificant

halibut savings - especially where effective and compatible alternative gear is available.

In the Gulf of Alaska longliners experienced difficulty this year with halibut bycatch, especially in the black cod fishery. Industry testimony explained that these difficulties were due largely to overcrowding, which forced some vessels to fish in shallow water - where halibut bycatch is greater. Hopefully season adjustments, PSC allocations, and careful fishing practices will reduce or eliminate this one-time aberration. Again, we need not start gear wars where effective alternative management measures and fishing equipment are available.

5. Ghost Fishing

It was noted in public testimony that ghost fishing is a substantial problem created by lost pots, and that lost strings of pots would only exacerbate the problem. There is no evidence that lost hook-and-longline gear creates ghost fishing problems.

Conclusions

The following conclusions flow from these facts:

- 1. Pot longline gear is incompatible with other gear, and if allowed on the grounds will cause gear conflicts and grounds preemption;**
- 2. The problem is immediate and substantial; action must be taken now to prevent gear wars and chaos on the grounds;**
- 3. Compatible alternative fishing methods - pots on single lines and buoys, or hook-and-line gear - are affordable and available to those who wish to enter the Pacific cod fishery;**
- 4. Halibut bycatch advantages of pot gear are minimal and biologically insignificant; and**
- 5. Lost pots create substantial ghost fishing problems which are not created by other gear; strings of lost pots only exacerbate the problem.**

Steve, we face a management crisis. We are appealing to you as chief federal fishery manager to take immediate action to see that we do not spend years fighting an unnecessary battle. Please see that the Council has adequate analysis to make a decision on this critical issue in December.

The groundfish industry needs pot longlining like a
fish needs a bicycle.

Sincerely,

/s/

Jim Beaton
President

POTSDOC

**ENVIRONMENTAL ASSESSMENT
and
REGULATORY IMPACT REVIEW/INITIAL REGULATORY FLEXIBILITY ANALYSIS
OF A REGULATORY AMENDMENT TO
DELAY THE HOOK-AND-LINE FISHING SEASON FOR SABLEFISH
IN THE GULF OF ALASKA**

SUMMARY

Bycatch rates of Pacific halibut in the Gulf of Alaska sablefish hook-and-line fishery are high during April (349.73 kg/mt) but decline in May (244.54 kg/mt), and probably decline further in June, also. A June bycatch rate of 187 kg/mt is projected. In 1990, the fishery closed May 29 when the halibut prohibited species catch mortality limit was reached. Alternative season starting dates are analyzed to determine options to reduce halibut bycatch rates. The status quo alternative, i.e. maintain the April 1 Gulf-wide starting date, would result in a premature closure of hook-and-line fisheries for all groundfish species. Because the halibut bycatch allowance available to hook-and-line gear in 1991 likely will be even lower than the 1990 allowance, the status quo alternative will be even more repressive. Harvests of sablefish and other groundfish species would likely be reduced.

An alternative that would allow a Gulf-wide April 1 starting date with a closure after the Eastern area closes and subsequent reopening in the Central and Western areas in May or June would not be effective, because the halibut bycatch rate is so high during April.

A date during May is superior to April 1 with respect to reducing halibut bycatch rates and minimizing conflicts with other fisheries, especially the salmon fishery. If the first halibut season were to open before the sablefish season, prospecting for halibut would not occur. Further, halibut abundance would be reduced by the halibut fishery, which could reduce halibut bycatch in the subsequent sablefish fishery. Although the Eastern Regulatory Area closes after about three weeks, the Central and Western areas usually close after about six weeks or longer. Because salmon fisheries start in late June, a sablefish starting date in June could conflict with the Southeast Alaska salmon fishery. Any sablefish season starting date after about the middle of May probably would conflict with salmon fisheries in the Central and Western areas. In 1990, 237 out of 591 vessels that landed sablefish also landed salmon. Most of these vessels fish salmon in Southeast Alaska. Weather should be improved in May relative to early April, resulting in greater vessel safety.

INTRODUCTION

The domestic and foreign groundfish fisheries in the exclusive economic zone of the Gulf of Alaska are managed by the Secretary of Commerce (Secretary) under the Fishery Management Plan (FMP) for Groundfish of the Gulf of Alaska. The FMP was prepared by the North Pacific Fishery Management Council (Council) under the Magnuson Fishery Conservation and Management Act (Magnuson Act) and is implemented by regulations for the foreign fishery at 50 CFR Part 611 and for the U.S. fishery at 50 CFR Part 672.

At times, amendments to the FMP and/or its implementing regulations are necessary to resolve problems pertaining to management of the groundfish fisheries. The structure of the FMP provides for changes to seasons by amending regulations (regulatory amendments) without accompanying amendments to the FMP.

At its June 25-30, 1990 meeting, the Council recommended that a regulatory amendment be prepared for Council consideration that would delay the starting date for the hook-and-line fishery for sablefish to later

in the fishing year. The purpose of the season delay would be to reduce halibut bycatch, which otherwise occurs at excessive rates in the sablefish hook-and-line fishery.

A description of, and reasons for, this action are as follows:

During the 1990 fishing year, hook-and-line fisheries in the Gulf of Alaska reached their assigned share of the prohibited species catch (PSC) mortality limit for Pacific halibut. When the PSC assignment was reached, further fishing with hook-and-line gear was prohibited. One of the hook-and-line fisheries experiencing halibut bycatch was directed at sablefish, which is a groundfish species occurring in deep water. Because the season for sablefish is conducted during a time of the year when Pacific halibut also occur in deep water, Pacific halibut are frequently caught as bycatch in the sablefish fishery.

Bycatches of halibut in the sablefish fishery are directly related to the life histories of these two species. During the winter and early spring months, the depth distributions of sablefish and halibut overlap. March appears to be a transitional period for halibut as they begin moving to shallow waters. By May, many adult halibut frequent shallow water, less than 100 fathoms, where they reside through the summer until September. In November, halibut return to deep water where they again are found with adult sablefish until March of the following year. When the sablefish hook-and-line fishery starts on April 1, halibut are still found in deep water where adult-size sablefish are fished, usually between 200 and 400 fathoms. Halibut are caught as bycatch, therefore, in the sablefish hook-and-line fishery. These bycatches of halibut in the sablefish hook-and-line fishery reduces potential economic return in the halibut fishery. The International Pacific Halibut Commission (IPHC) has jurisdiction over the setting of halibut allowable biological catch (ABC). The IPHC adjusts the subsequent year's ABC downward by 1.0 times the current year's PSC mortality of halibut. A discard mortality, therefore, of one pound of halibut in the current year results in a decrease in ABC of 1.0 pounds the following year. This reduction is spread across all halibut area, not just one where mortality occurred.

Prior to the 1990 fishing year, no measures were in place to constrain halibut bycatch by hook-and-line gear, although PSC mortality limits have been imposed on trawl gear since 1986. When the PSC limit assigned to trawl gear was reached, no further trawling with other than pelagic trawl gear was allowed. In 1990, a PSC limit of 750 metric tons (mt) was also imposed on fixed gear (hook-and-line and pot gear, combined) through Amendment 18 to the FMP (54 FR 50386, December 6, 1989). In another action, however, pot gear was exempted by emergency rule from the fixed gear halibut bycatch accountability (55 FR 5994, February 21, 1990). All of the 750-mt PSC for fixed gear, therefore, was assigned to hook-and-line gear in 1990. When the PSC limit assigned to hook-and-line gear was reached, no further fishing with hook-and-line gear was allowed.

The hook-and-line fishery for groundfish, except sablefish, starts January 1. The starting date of the sablefish hook-and-line season is April 1. Fishing commences actively on that date and continues until shares of the sablefish total allowable catch (TAC) assigned to hook-and-line gear (harvest quotas) are met. Fishing effort is usually distributed such that harvest quotas are reached first in the Southeast Outside/East Yakutat (Southeast) and West Yakutat Districts of the Eastern Regulatory Area (Figure 1), followed by the Central Regulatory Area, and then the Western Regulatory Area.

For example, in 1990, respective directed fishery closure dates were: Southeast District - April 20; West Yakutat District - April 16; Central Regulatory Area - May 29; and the Western Regulatory Area - May 29. In the Central Regulatory Area, all of the sablefish harvest quota was reached. In the Western Regulatory Area, which was closed when the halibut PSC gear share was reached, 1,497 mt of the sablefish harvest quota were not harvested.

Hook-and-line fisheries in the Gulf of Alaska mainly target on sablefish and Pacific cod. Other groundfish species may be caught. Halibut bycatches were especially high in the sablefish fishery (Table 1).

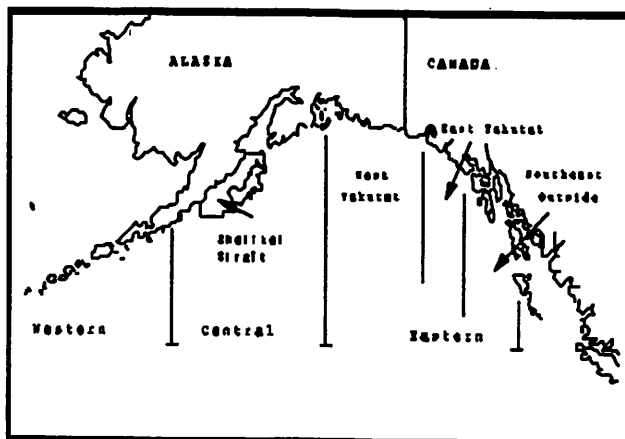


Figure 1. Management areas in the Gulf of Alaska groundfish fishery.

Table 1. Amount of halibut mortality in metric tons by Federal reporting area, attributed to the hook-and-line fishery, assuming a mortality rate of 13 percent (Source: Observer database through November 3, 1990).

ZONE	** Target Fishery **				Sablefish	Turbot	TOTAL
	Bottom pollock	Flat-fish	Rock-fish	Pacific cod			
610				28.0	39.7	0.0	
620			0.0	3.2	60.1		
621				0.1	0.1		
630	0.1	0.1	3.0	20.8	501.8		
631				0.3	0.0		
640			0.1	0.2	58.7		
650			4.3	2.7	250.4		
680			0.4		29.0		
Total	0.1	0.1	9.2	55.4	939.8	0.0	1,004.6

For example, the amount of halibut mortality attributed to this fishery was about 94 percent of the total halibut bycatch mortality in the hook-and-line fishery, even though the amount of sablefish harvested in the hook-and-line fishery represented a relatively smaller amount - about 79 percent of the hook-and-line groundfish catch of 30,430 mt.

Halibut bycatch rates by regulatory area (Table 2) showed declines during May compared to April in the Central and Western Regulatory Areas. No comparisons of halibut bycatch rates between April and May can be made for the Eastern Regulatory Area, because the fishery closed in that area in April. The overall Gulf of Alaska halibut bycatch rate declined from 349.73 kg/mt in April to 244.54 kg/mt in May. Details of halibut bycatch rates for each week and Federal reporting area are provided in Appendix 1.

 Table 2. Observed halibut bycatch rates (kg/mt) in the 1990 Gulf of Alaska hook-and-line fishery, by regulatory areas, for April and May (source: NMFS observer database through November 3, 1990).

Regulatory Area	April	May
Western	321.25	39.98
Central	499.89	288.51
Eastern	103.79	N/A
Gulf of Alaska wide	349.73	244.54

Together, statistical areas 630 and 650 contributed 79 percent to the total halibut mortality in the hook-and-line fishery. Because the hook-and-line fishery for sablefish harvested all the amounts available to hook-and-line gear in the Eastern and Central Regulatory Areas prior to the PSC for hook-and-line gear being reached on May 29, 1990, no amounts of sablefish were foregone in those areas. In the Western Regulatory Area, however, a harvest shortfall of 1,497 mt of sablefish occurred. Expressed in pounds and using a recovery rate of 0.63 for eastern cut product, the resulting shortfall is 2,078,614 pounds. At \$1.10 per pound, fishermen might have lost about \$2.8 million in gross exvessel revenue.

Halibut bycatches may be even more constraining in 1991 than they were in 1990. In 1991, the Council may establish a 700 mt halibut PSC for hook-and-line gear. Fishermen using hook-and-line gear must share this smaller PSC amount while catching any groundfish species with hook-and-line gear, not just sablefish. Attainment of the PSC assigned to hook-and-line gear would be expected, resulting in smaller harvests of the groundfish by hook-and-line gear.

In reviewing this issue, the Council heard testimony from the industry suggesting that delaying the sablefish season starting date would allow halibut time to migrate into shallower water, thereby partly escaping the sablefish fishery. Declining halibut bycatch rates, shown in Figure 1 by week ending date from April through May, suggest that additional halibut could escape the sablefish fishery (Figure 2). A season delay should, therefore, reduce the halibut bycatch rate and total bycatch of halibut in the sablefish hook-and-line fishery. Lower bycatch rates in this fishery would increase the fisheries' opportunity to harvest its available sablefish harvest quota, and make more halibut available to support other hook-and-line fisheries, thereby promoting greater groundfish harvests, including that for sablefish.

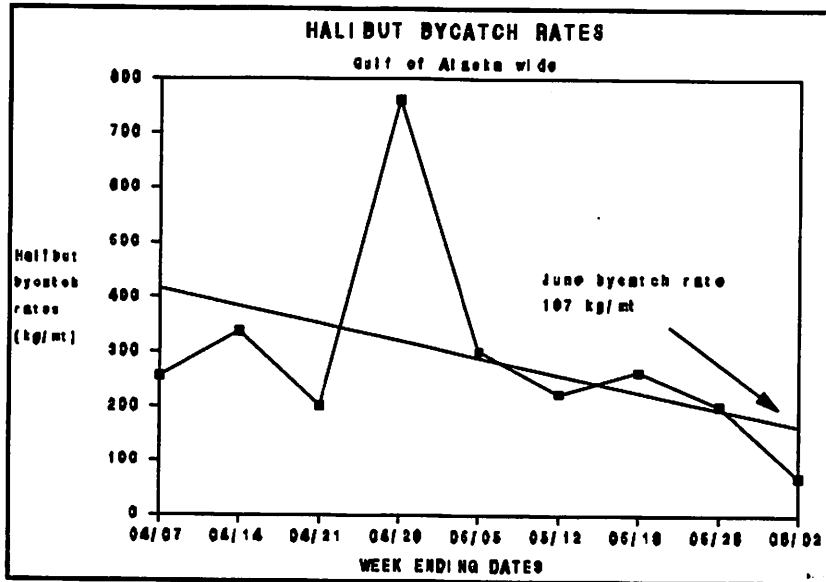


Figure 2. Halibut bycatch rates (kg/mt) in the Gulf of Alaska hook-and-line sablefish fishery from April through May, 1990.

The Council requested that a draft regulatory amendment be prepared, which if implemented, would delay the sablefish fishery until such time when fewer halibut would be present to be caught as bycatch. The Council requested that a supporting analysis be prepared to support the draft regulatory amendment. The Council requested that the analysis contain the following alternatives.

ALTERNATIVES

Alternatives include:

Alternative 1. Retain the April 1 starting date throughout the Gulf of Alaska, i.e., regulatory status quo.

Under this alternative, the season starting date for the sablefish hook-and-line fishery would remain April 1 throughout the Gulf of Alaska. Each of the management areas or districts would close when the directed sablefish harvest quota for hook-and-line gear was reached.

Alternative 2. Retain the April 1 starting date in each of the Eastern, Central, and Western Regulatory Areas of the Gulf of Alaska, close the Gulf when the harvest quota in the Eastern Regulatory Area is reached, and reopen the Central and Western Regulatory Areas at a later date.

Under this alternative, the entire Gulf of Alaska would open as currently scheduled on April 1. Then, when harvest quotas in the Eastern Regulatory Area, i.e., the Southeast Outside/East Yakutat and West Yakutat Districts combined, are reached, the Eastern Regulatory Areas would close. The Central and Western Regulatory Areas would reopen on future dates if any amounts of the harvest quota remain in these areas. Options for reopening the Central and Western Regulatory Areas include May 1, June 1, July 1, August 1, September 1, and October 1. Only the May 1 and June 1 reopening dates are contained

in this analysis. Data are not available, nor can they be reasonably estimated, to analyze the other reopening dates.

Alternative 3. Delay the starting date in each of the Eastern, Central, and Western Regulatory Areas of the Gulf of Alaska, until a later date.

Under this alternative, two options for a starting date are considered: May 1 and June 1. The entire Gulf of Alaska would open on one of these dates. Although the analysis contained herein is specific to May 1, a mid-May starting date, e.g. May 15, would be expected to result in more benefits in terms of reduced halibut bycatch.

A variation of this alternative would be to close the sablefish fishery in the Central and Western areas after the Eastern area closes, and then reopen it at a later date, possibly June 1 [or July 1], August 1, September 1, or October 1. This variation is not analyzed, because sufficient halibut bycatch information is not available.

ENVIRONMENTAL IMPACTS OF THE ALTERNATIVES

This analysis considers socioeconomic and environmental impacts of reasonable alternatives to the April 1 season starting day to address the problem of excessive halibut bycatch rates in the hook-and-line sablefish fishery. No costs or benefits to the halibut industry are considered as a result of any of the alternatives, because total halibut mortality is already restricted under established PSC limits. Benefits gained by reducing halibut PSC mortality as a result of delaying the sablefish season likely would be transferred to other groundfish fisheries, thereby promoting additional harvests of the groundfish optimum yield. Because the other groundfish hook-and-line fisheries experience lower bycatch rates, a significant reduction in halibut bycatch rates in the sablefish fishery could result in a net decrease in halibut mortality.

Types of socioeconomic impacts, therefore, addressed in this analysis include (1) effects on the annual groundfish harvest caused by possible halibut bycatch rates, including impacts on the sablefish harvest and impacts on the Pacific cod harvest, (2) impacts on other fishing seasons caused by competing harvesting/processing needs, and (3) impacts on vessel safety resulting from inclement weather. Impacts analyzed also include management costs, consumer costs, and impacts on small businesses.

Socioeconomic Impacts

Effects on the annual groundfish harvest

Alternative 1.

Under this alternative, the sablefish fishing season would start April 1, which is the status quo. Sablefish fishing would occur during a time of year when halibut are still frequently found in deep water. Bycatch rates of halibut in the sablefish hook-and-line fishery similar to those experienced in 1990 would be expected to continue.

Under the status quo alternative, the amounts of sablefish that might be caught during the hook-and-line fishery will depend on how much PSC is assigned to hook-and-line gear. Nonetheless, if the halibut bycatch rates during 1991 can be represented by the 1990 observed rates, an early closure of the hook-and-line fishery would be expected. The overall halibut bycatch rate in the sablefish hook-and-line fishery was 349.73 kg/mt during April and 244.54 kg/mt for May. For a given amount of sablefish quota, a larger amount of halibut bycatch would be needed to support an April fishery than a May fishery.

Because halibut bycatch rates vary among management areas and by time, amounts of sablefish that might be caught also vary for any given amount of available halibut PSC mortality assigned to hook-and-line gear.

For the Eastern area, 74 mt of sablefish might be caught for each metric ton of halibut bycatch mortality during April (Table 3). For the Central area, 15 mt and 27 mt of sablefish might be caught for each metric ton of halibut bycatch mortality during April and May, respectively. For the Western area, 24 and 192 mt of sablefish might be caught for metric ton of halibut bycatch during April and May, respectively. This result assumes that the Eastern area would close in one month, i.e., April, and that the Central and Western areas would each close after two months, i.e., by the end of May, as they did in 1990.

Table 3. Halibut bycatch rates and bycatch mortality rates, assuming a 13 percent bycatch mortality rate, in the management areas of the Gulf of Alaska during 1990.

Area	Halibut Bycatch rate (kg/mt)	Halibut Mortality rate @13% (kg/mt)	Expected Sablefish Catch (mt) for 1 mt of halibut bycatch
EASTERN			
April	103.79	13.5	74
May (projected)	75.00	9.8	102
CENTRAL			
April	499.89	65.0	15
May	288.51	37.5	27
June (projected)	157.00	20.41	49
WESTERN			
April	321.25	41.8	24
May	39.98	5.2	192
June/June (Estimated from May)	39.98	5.2	192

Halibut bycatch rates in other directed groundfish hook-and-line fisheries must be considered. In the Gulf of Alaska, Pacific cod are also targeted with this gear type. If fishermen were to fish in April for Pacific cod instead of sablefish, they would be expected to also experience some halibut bycatch. Pacific cod inhabit shallow water where halibut bycatch rate would be high during mid-year when halibut are in shallow water, but low when halibut are in deep water. The overall halibut bycatch rate in the cod fishery during 1990 prior to, and during April was 88 kg/mt. During May, the halibut bycatch rate was 141 kg/mt, an increase of 37 percent. The relatively high rate in April is expected, because halibut would still be in deep water and would not be so susceptible to the shallow water cod fishery. The through April when they are a bycatch problem in the sablefish fishery, moving into shallow water in May, when they are a bycatch problem in the Pacific cod fishery.

Under this alternative, fishermen could fish for Pacific cod in shallow water until the sablefish fishery started in April. By moving to the higher value sablefish fishery, they would experience the typically high halibut bycatch rates associated with the deep water sablefish fishery in April.

Alternative 2.

Under alternative 2, all management areas would open on April 1, close when the Eastern area closes, and then reopen at a later date. Two reopening dates are considered: May 1 and June 1. Amounts of sablefish that might be caught for each metric ton of halibut mortality during April are expected to be the same as

for Alternative 1, i.e., 74 mt, 15 mt, and 24 mt, in the Eastern, Central, and Western areas, respectively. Because both management districts of the Eastern area could close by about April 20 (in 1990, it closed in 19 days, see Table 4), the Central and Western areas would close for the remaining 10 days of April.

Table 4. Opening and closing dates in the management areas of the Gulf of Alaska sablefish hook-and-line fishery during 1989 and 1990.

	1989	1990
Eastern		
Southeast Outside/ East Yakutat District	16 days	19 days
West Yakutat District	24 days	15 days
Central	56 days	58 days (halibut PSC) 1/
Western	103 days	58 days (halibut PSC) 2/

1/ Quota reached
2/ 1,497 mt (50% of sablefish quota) remaining

The entire harvest quota would be expected to be reached in the Eastern area, unconstrained by the halibut PSC bycatch limits. If the Eastern area closes after about 20 days, amounts of sablefish would temporarily be left unharvested in the Central and Western areas during the remainder of April, i.e., until the fishery reopened on May 1. In 1990, daily sablefish catches in the Central and Western areas during April were 116 mt and 33 mt, respectively. Therefore, 1,160 mt and 330 mt of sablefish would not be harvested in the Central and Western areas during the last ten days in April. Certain amounts of halibut mortality, therefore, would not occur during April, equal to 77 mt in the Central area and 14 mt in the Western area. These amounts would be available to support the sablefish fishery during a later opening.

If the reopening is May 1, the amounts of halibut mortality carried over from the April closure would now be available to support the sablefish fishery at the May bycatch rates, which would be substantially reduced from the April rates. An additional 2,079 mt (Table 5) of sablefish in the Central area, and 2,688 mt of sablefish in the Western area, or a total of 4,767 mt of sablefish might be harvested, supported by the halibut PSC carried over from the April closure, assuming that the halibut bycatch rates experienced during May 1990 are repeated during May 1991.

Table 5. Amounts of halibut mortality (mt) saved if the Central and Western areas close for the last ten days in April following closure of the Eastern area.

	Sablefish catches (mt)		Sablefish catch/1 mt halibut mortality	Halibut savings during April	Sablefish catch for 1 mt halibut		Additional sablefish catch	
	Daily	10 days			May	June	May	June
Central	116	1,160	15	77	27	49	2,079	3,773
Western	33	330	24	14	192	192	2,688	2,688
					Total		4,767	6,461

Because the entire 1990 Central area harvest was reached concurrent with the hook-and-line fishery closure at the end of May, all of the 77 mt of halibut bycatch mortality saved in the Central area might be available to support the sablefish fishery in the Western area, where 1,500 mt of sablefish was foregone during 1990. Or, it might be available to support other hook-and-line fisheries. Because the amount of halibut that might be needed to support the Western area sablefish fishery is less than that which would

be saved under this alternative, halibut PSC should be available to support other hook-and-line fisheries.

Under this alternative, another option for the reopening date is June 1. If the later opening is June 1, the amounts of halibut mortality carried over from the April closure would now be available to support the sablefish fishery at the June bycatch rates. Because the 1990 hook-and-line fishery was closed prior to June, empirical June rates are not available. A June rate of 157 kg/mt for the Central area, however is estimated by extending a "best fit" line through the actual 1990 bycatch rates experienced for the Central area during the April and May fishery (Figure 3).

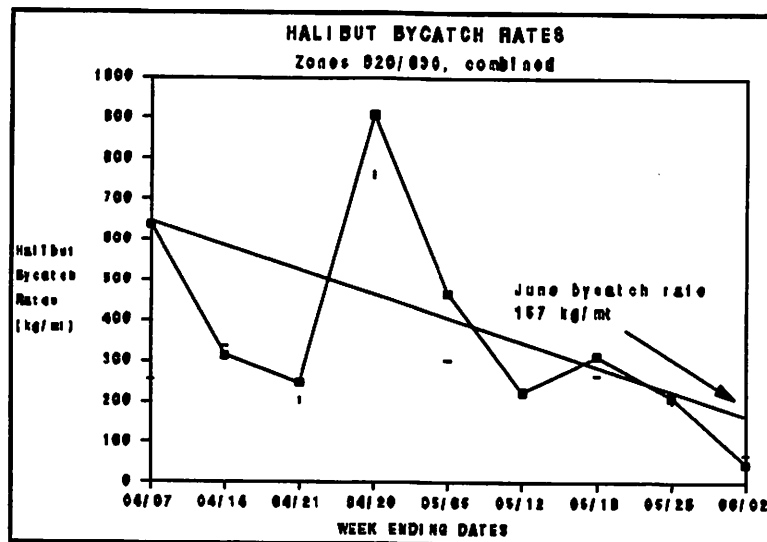


Figure 3. Halibut bycatch rates in the Central Regulatory Area for April and May. A rate for June is estimated using linear regression.

This provides a halibut bycatch mortality rate of 20.41 kg. For each metric ton of mortality, 49 mt of sablefish might be caught. Using this estimated rate, an additional 3,773 mt (Table 5, above) of sablefish might be caught in the Central Area, and, using the May estimates for the Western area, an additional 2,688 mt might be caught, for a total of 6,461 under this alternative.

Concerning the Pacific cod fishery, this alternative would impose the same type of halibut bycatch cost as under Alternative 1. Fishermen would likely quit fishing for Pacific cod in shallow water where halibut bycatch rates would be low. They would then be attracted to the higher value sablefish fishery in deep water where high halibut bycatch rates would occur. When closure of the Eastern area occurred, however, fishermen might resume fishing Pacific cod until the Central and Western areas reopened on May 1 or June 1. Assuming that halibut had not completed migration into shallow water, any Pacific cod fishing during the last ten days or so in April might occur at lower halibut bycatch rates.

Alternative 3.

Under this alternative, the sablefish season would be delayed until a later date throughout the Gulf of Alaska. Two starting dates are considered: May 1 and June 1.

If the season starts on May 1, possible halibut bycatch mortality rates (expressed in kilograms per mt of sablefish) are those that were experienced in, or projected from, the 1990 fishery, as shown for the regulatory areas in Table 2. These are: Eastern area - 9.8, Central area - 37.5, and Western area - 5.2. Using these mortality rates, the amounts of sablefish that might be caught per metric ton of halibut are 102 mt, 27 mt, and 192 mt for the Western, Central, and Eastern areas, respectively.

Fishing periods in each of the management areas likely will be about the same number of days in 1991 as in 1989, when the hook-and-line sablefish fishery was unconstrained by halibut PSC mortality rates. If so, the Eastern area could close during May, the Central area could close after two months, i.e., at the end of June, and the Western area could close after three months, i.e., at the end of July.

Under the May 1 option, 102 mt of sablefish might be caught in the Eastern area for each metric ton of halibut mortality during May. Likewise, 27 mt and 49 mt of sablefish might be caught in the Central area during May and June, respectively, for each metric ton of halibut mortality. And, 192 mt of sablefish might be caught in the Western area during each month of May, June, and July. Depending on the PSC amount available for 1991, a substantial PSC savings would be expected, which could be made available to support other groundfish fisheries.

Under this alternative, fishermen likely would continue fishing for Pacific cod through April until the higher value sablefish fishery started in May or June. Halibut bycatch rates in the Pacific cod fishery would be low (88 kg/mt) through April. When they commence fishing for sablefish in deep water starting in May, they would be quitting the shallow Pacific cod fishery where halibut bycatch rates could be about 141 kg/mt.

Effect of the sablefish season on other fisheries

Four fishing periods occur in the Gulf of Alaska hook-and-line fishery, one in each of the four management areas: Southeast District, West Yakutat District, the Central Regulatory Area, and the Western Regulatory Area. The duration of the fishery varies with the management area being fished. If seasons for other fisheries occur at the same time in a particular area, fishermen must decide whether to participate in those fisheries or remain in the sablefish fishery. If a season in another fishery is short, e.g. the halibut fishery in Southeast Alaska, but the sablefish season is long, then fishermen might decide to quit the sablefish fishery long enough to participate in the other fishery and then rejoin the sablefish fishery. Conversely, if a fishing season for another species is long, fishermen may decide to continue in the sablefish fishery until it closes and then commence fishing in another fishery.

The duration of fishing periods experienced during the 1989 and 1990 hook-and-line sablefish fisheries are summarized (Table 6) among the management areas. Although the 1990 season in the Central Regulatory Area was initially closed when the halibut PSC gear share was reached, subsequent tallying of the catches showed that the entire share of the sablefish TAC in that area was reached. The 1990 season in the Western Regulatory Area also was closed, because the halibut PSC gear share was reached. Subsequent tallying of the catches, however, showed that a harvest shortfall of 1,497 mt in the sablefish harvest quota resulted from the closure.

Other fisheries that might conflict with the sablefish fishing seasons are directed at halibut, Pacific herring, crab, and salmon. The halibut fishery throughout Alaska is managed by the International Pacific Halibut Commission (IPHC). The herring, crab, and salmon fisheries are managed by the Alaska Department of Fish and Game. State of Alaska regulatory code describes the periods when some of the State managed fisheries might be allowed. A summary of these dates is contained in Appendix 2, and are shown graphically in Table 6.

Table 6. Comparison of Gulf of Alaska fishing seasons with alternative starting dates for sablefish hook-and-line season.

Fishery	Seasons							
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG
SABLEFISH								
April 1 start				XXXX	XXXX	XXXX		
May 1 start					XXXX	XXXX	XXXX	
HERRING								
SAC ROE			X	X	X			
FOOD AND BAIT								
SALMON						XXXX	XXX	
CRAB, SE Alaska		XX						
HALIBUT					X	X		X

Annual inseason openings within some of these dates are announced via emergency orders by the Alaska Department of Fish and Game. Demands of processing capabilities, e.g. ice supplies and tendering capacity also must be considered. Potential conflicts with other fishing seasons are described below.

Pacific halibut fishery - The starting dates for the halibut seasons are set by the IPHC at its January meeting. The 1990 scheduled dates in the majority of the Gulf of Alaska (IPHC areas 2C, 3A, and 3B) were May 1, June 5, and August 30. Each opening is 24 hours long and the grounds become very crowded with gear. The spike of halibut bycatch shown in Figure 1 (see page 6), corresponds to the week preceding the first halibut opening. Some fishermen and processors speculate that this opening could be partially responsible for the temporary increase in halibut bycatch due to fishermen prospecting for good halibut fishing grounds.

The sablefish fishing periods in the Eastern Regulatory Area typically are completed within two or three weeks after the April 1 starting date. In 1990, for example, the Southeast District closed after nineteen days and the West Yakutat closed after 15 days. Under alternative 1 or 2, the fishing periods in the Eastern area would not conflict, therefore, with either of the halibut seasons if they were to be scheduled in 1991 as they were in 1990.

In the Central area, the sablefish fishing period in 1989 and 1990 were both less than 60 days. Under the status quo alternative, the Central area fishing period could conflict with a May 1 halibut season but not necessarily with a June 5 halibut season. Alternatives 2 and 3, however, which could cause the Central area to be reopened on May 1 or June 1, would likely conflict with the halibut season. Fishermen who wished to fish halibut would likely do so. The sablefish fishery would last long enough for fishermen to again participate after quitting to fish halibut.

In the Western area, the sablefish fishing period in 1989 was 103 days. In 1990, it was 58 days, curtailed by the halibut PSC closure. Under the Alternatives 2 or 3, the Western area fishing period could conflict with a May 1 halibut season and a June 5 halibut season. Sablefish fishermen in the Central and Western areas may decide to quit the sablefish fishery long enough to participate in the halibut fisheries, and then return to the sablefish fishery.

If the first halibut season were prior to the start of the sablefish season, two benefits would result: prospecting for halibut would not occur, and fishing mortality imposed on halibut ought to reduce the

subsequent bycatch of halibut in the sablefish fishery. For example, if the sablefish season starting May 1 or May 15, a halibut season opening prior to May 1 or May 15, respectively, would be desirable.

Herring sac roe fishery - Four sac roe herring fisheries occur in Southeast Alaska. These are the Sitka, Kah Shakes, Seymour Canal, and the Lynn Canal herring sac roe fisheries. The Lynn Canal sac roe fishery has not been opened since 1982. The other three fisheries are announced annually by emergency order. Dates for these fisheries are biologically and economically influenced, depending on biological timing when herring spawn and market demand of herring roe. Actual respective season dates in 1990 were: Sitka, April 5-6; Kah Shakes, March 20 - 21; and Seymour Canal, April 28-30.

Under Alternatives 1 or 2, an April 1 starting date in the Southeast and West Yakutat districts would conflict with the Sitka herring sac roe fishery. If the Kah Shakes herring roe fishery occurs March 20 -21, no conflict with the sablefish fishery would occur. If the Seymour Canal fishery starts April 28, no conflicts would occur, assuming that the fishing periods in either of the Southeast District and West Yakutat Districts close prior to April 28. Few fishermen would be expected to travel to Seymour Canal from the West Yakutat District and revamp gear to participate in a herring fishery, which might last only one or two days. No conflicts would occur under Alternative 3, i.e., a May 1 or June 1 starting date.

Crab fisheries - In 1990, the Southeast Alaska brown king crab fishery was conducted during February 15-April 4 in Frederick Strait. It closed in Icy Strait on January 29. The Tanner crab fishery was conducted from early 1990 - March 8. Most of the brown king crab seasons occur before the sablefish season starts on April 1. Few fishermen would be adversely impacted under either of the alternatives.

Salmon fisheries - During 1990, the summer troll salmon fishery in Southeast Alaska started June 21. Special hatchery access fisheries, i.e., openings directed at hatchery production, occurred June 5-7 and June 21-23. Experimental 3-day troll fisheries were conducted, starting June 11 and June 25. Because the durations of the sablefish fishing periods in the Southeast and West Yakutat Districts are typically about three weeks or less, the sablefish season in these districts would be completed before any of the salmon troll seasons. No conflicts, therefore, would occur under this alternative.

Under Alternative 2 or 3, however, conflicts might occur. Under Alternative 2, the reopening of the Central and Western areas could be May 1 or June 1. Because the hook-and-line fisheries in these areas could last two months or more, they could conflict with salmon seasons in Cook Inlet and areas to the west. Under Alternative 3, the entire Gulf of Alaska would not open until May 1 or June 1. In the Eastern area, the sablefish fishery would last about three weeks. The May 1 option poses no conflicts, but the June 1 option might. Fishermen would experience conflicts if the sablefish fishery is still open when the salmon season starts. Resources to process salmon simultaneously with sablefish might not be available. In the Central and Western areas where the sablefish season could continue into June and July, conflicts could occur with salmon fisheries in Cook Inlet and areas to the west.

Anticipated effects of weather on vessel safety

A review of NOAA weather records for the Gulf of Alaska shows that storms occur more frequently in April than in May, June, or July. Because alternatives 1 and 2 result in an April opening, either the May 1 or June 1 option for alternative 3 is considered superior.

Management Costs

Research conducted by the Alaska Fishery Science Center (AFSC) depends on collecting data over as many continuous years as possible to detect changes in observed trends in biomass abundance. The

AFSC's sablefish indexing survey now has a 4-year unbroken time series. If the fishery opens on May 1, the sablefish index longline survey would probably start July 15. The 4-year time series could probably continue intact, because any biomass changes caused by a one-month delay in the sablefish season are not expected to be detectable.

For any date after May 1, however, the time series becomes increasingly jeopardized. If the season opens on May 1 or June 1, the time series probably would start August 1 or August 15, respectively. An August 1 start in the time series caused by a May 1 opening could jeopardize the time series. An August 15 start in the time series caused by a June 1 opening date would certainly jeopardize the time series. A June 1 starting date would result in certain changes, and a new time series would have to be initiated. Because a trend would not be possible until two years of data were collected, a new time series would result in a loss of one year of data.

Consumer Impacts

None of the alternatives is expected to have any impacts on consumers, with one exception. Quality of sablefish might increase in terms of consumer preference as a result of the fishery being delayed into summer months. During the earlier spawning season, which concludes prior to April, sablefish may have softer quality flesh. Actual quality increases later in the year have not been documented for Alaska waters, although they have been reported for sablefish in waters off Washington and Oregon.

Impacts on Small Businesses

To the extent that the entire sablefish quota assigned to hook-and-line gear ought to be harvested under Alternatives 2 or 3, these alternatives are superior to Alternative 1. Further, as more PSC becomes available to support other hook-and-line fisheries, fishermen using this gear type would accrue benefits. Each of the vessels are considered to be small businesses for purposes of this analysis. During 1990, 591 made sablefish landings in the Gulf of Alaska. This number represents an expected number of vessels that would benefit by a delay in the sablefish season. Some vessels might have to choose whether to stay with the sablefish season or quit to participate in some other fishery. For example, 237 vessels that made sablefish landings during 1990 also made salmon landings. Some of these could be adversely impacted if they are not able to participate in the salmon fishery as well as the sablefish fishery.

Most of the sablefish harvested off Alaska is destined for the Japanese market; demand for sablefish peaks during winter. A fishing season that produces sablefish later in the year, i.e., closer to the time of Japanese demand would result in lower storage costs of sablefish. An April starting date results in higher storage costs, whereas a June starting date should result in lower storage costs. Lower storage costs might result in higher exvessel gross revenue paid to fishermen, and perhaps to processors. In this respect, a June starting date is superior to either a May or an April starting date.

Biological and Environmental Impacts

Alternative 1. Under this alternative, the sablefish hook-and-line fishery would likely close prematurely, as is did in 1990. Uncaught sablefish would remain in the system where they would continue their roles as predator or prey species. For 1990, about 1,500 mt of sablefish were not harvested in the Western area as a result of the closure. If the average size of sablefish in the hook-and-line fishery is 4 pounds, this tonnage represents 826,500 fish, i.e., the number of fish that would remain as predators.

Sablefish consume small pollock, herring, and capelin during the day. They consume deep sea fish, including grenadiers and viperfish, and bottom-dwelling invertebrates during night. Other fish in their diet include Pacific cod, sculpins, small flounders, rockfish, and small sablefish. Harvesting less sablefish

results in more fish being left in the ecosystem. Therefore, more sablefish would be in the system and would thus consume more prey. More sablefish would also provide more biomass for other predators (including marine mammals and birds) in the system. Less fish waste would be discharged into the system by floating and/or shore-based processors. Less nutrients from fish waste would be available for animal life that otherwise would have consumed it.

Other naturally occurring factors, however, such as (1) subtle physical changes in ocean chemistry, temperature, and weather conditions, and (2) biological changes in animal populations as a result of physical changes, disease, and intra- and inter-specific competition, could well mask the direct effects of any management practice.

Alternatives 2 and 3. Under either of these alternatives, probably all of the sablefish quotas assigned to hook-and-line gear would be harvested. Harvesting more sablefish would result in fewer fish being left in the ecosystem; thus, fewer prey species would be consumed by sablefish, and less sablefish biomass would be available for other predators. More nutrients from fish waste would be discharged by floating and/or shore-based processors. More nutrients from fish waste would be available for animal life that feeds on such material. Again, other naturally-occurring factors could well mask the direct effects of any management practice.

FINDINGS OF NO SIGNIFICANT ENVIRONMENTAL IMPACT

For the reasons discussed above, neither implementation of the proposed action nor any of the alternatives to that action would significantly affect the quality of the human environment, and the preparation of an environmental impact statement on the preferred action is not required by Section 102(2)(C) of the National Environmental Policy Act or its implementing regulations.

DATE

COORDINATION WITH OTHERS

North Pacific Fishery Management Council
P.O. Box 103136
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 Appendix 1. Bycatch rates of halibut (kilogram/mt groundfish).
 Rates are weighted by vessel for each Week Ending Date &
 Federal reporting areas, using a proportion of the sum of
 kilograms. Source: Observer database through November 3, 1990.

Federal Reporting Areas

WED	610	620	621	630	640	650
04/07/90	191.56	212.51		748.69	46.27	6.96
04/14/90	411.09	193.85		345.40	163.72	464.25
04/21/90	46.93	233.64		250.80	42.48	504.78
04/28/90	277.70	943.65	3295.5	901.43		
05/05/90	33.88	119.95		542.96	20.79	
05/12/90	225.43					
05/19/90	42.39	53.62		400.94		
05/26/90	43.85	22.66		216.49		
06/02/90	236.33	79.48		12.52		

Appendix 2. Gulf of Alaska fishing seasons in State of Alaska or Federal regulations.

Groundfish

GOA & BSAI January 1 - December 31.
GOA sablefish (H&L) April 1 - December 31.

Herring

SE Alaska October 1 - February 28 (food and bait fishery); Emergency order openings.
Yakutat Anytime.
Prince William Sd. March 1 - June 30 (sac roe fishery) by emergency order;
September 1 - January 31 (food and bait fishery).
Cook Inlet April 15 - June 30 (Eastern subdistrict of Northern district & upper subdistrict
of Central district);
April 22 - June 30 (remainder of Northern and Central districts);
April 15 - June 30 (Eastern, Outer, Southern, and Kamishak Bay districts).
Kodiak April 15 - June 30 (sac roe fishery);
August 1 - February 28 (food and bait fishery).
Chignik April 15 - June 30 (sac roe fishery);
August 15 - February 28 (food and bait fishery).
AK Peninsula/AI April 15 - July 15 (sac roe fishery)
August 15 - February 28 (food and bait fishery).

Salmon

SE Alaska
purse seines Emergency order (Districts 1-3, 5-7, 9-14, 11C, 15A, 15C);
1st Sunday in July (District 4);
August 1 or later in District 12A.
gill nets Emergency order (District 1A);
3rd Sunday in June (District 1B, 6A-6C), 8, 15A;
3rd Sunday in June through last Saturday in July/ 2nd Sunday in
September until closed (part of 6D).
troll gear October 1 - April 14 (winter fishery);
June 20 - September 20 (summer fishery).
June 15 - September 20 (coho salmon only).
Neets Bay June 1-30, troll gear only;
July 1-July 31, seine, drift gillnet, and troll gear;
August 1 - September 20, seine

A. W. BRINDLE
H. A. BRINDLE

AGENDA D-1(b-e)(4)
DECEMBER 1990

FOOD

NOV Wards Cove Packing Company

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November 15, 1990

Dr. Clarence Pautzke; Executive Director
North Pacific Fisheries Management Council
605 West Fourth Avenue
Anchorage, Alaska 99501

Dear Dr. Pautzke,

The Council is expected to take action on Gulf of Alaska sablefish season regulatory amendments during either the December or January meetings. The fishing season for sablefish currently opens on April 1, and the council will consider alternatives which include postponing the opening date by one or more months. Wards Cove Packing Company recommends the Council adopt a May 1 opening primarily in the interest of safety, and to maximize the time that fishermen and processing facilities have to prepare for the fishing seasons during periods of relatively moderate weather.

In 1990, Wards Cove Packing Company processed sablefish in three Gulf locations. Crews are typically on site one month ahead of time in order to clear snow and de-winterize equipment to meet the April 1 opening. Weather patterns during this period are on the edge of winter and on more than one occasion, severe weather has been a significant factor in the lack of preparation prior to vessels being pressed into the early sablefish fishery.

Half the boats that deliver to Wards Cove Packing facilities are "grass roots" fishermen operating relatively small vessels from coastal villages. During the 1990 season, fishermen operating these smaller vessels from the village of Elfin Cove in southeast Alaska were unable to fish for two weeks, or 50 percent of the season, due to severe weather. Anyone who has been involved in this fishery can cite friends or associates who have lost time, equipment or worse due to severe weather associated with the spring sablefish opening. One such incident occurred this past season to a Juneau fisherman who, compelled by the necessity to participate or lose out, extended the seaworthiness of his vessel in heavy weather. Working in relatively protected waters, the boat and crew accumulated a catch of 20,000 pounds. Forced to return to port with the catch, the vessel entered less protected seas, was swamped and sank. Fortunately, there was no loss of life, but losing his vessel meant that this fisherman forfeited income for the remainder of the season, and the crew lost wages that would have resulted from sale of the catch.

Other dangers directly related to severe weather during the month of April involve extremely hazardous working conditions either on the deck of a vessel or on the receiving dock due to ice or snow. There is also increased gear loss and loss due to scavengers if gear cannot be picked up in a timely manner.

According to the Anchorage office of the National Weather Service, April 20 is identified as the end of the annual "transition zone" during which weather patterns unquestionably moderate in the Gulf of Alaska. No one can guarantee that weather patterns will abate during the month of May, but any storms will be of reduced intensity due to lengthening daylight. Losses of life and property may not be avoided, but stand an excellent chance of being mitigated by postponing the commercial fishery to May 1.

The dangers that pervade the spring sablefish season are more severe in the Bering Sea winter crab fishery. In that fishery, the dangers of the fishery are confounded by the increased value of the product through the winter months. There are similar biological factors that compel the postponement of the Gulf of Alaska sablefish season to May versus April. Sablefish should remain protected during the winter months when the fish convert body energy to reproductive products and spawn. Extending the period between the winter spawning months and the harvest will allow more time for sablefish to recover and enhance the quality and value of the product.

The 1990 halibut season opened on May 1, approximately one week after the fleet exhausted the quarterly sablefish quota in southeast. Whether the sablefish season occurs prior to, or follows the anticipated early May halibut season is of little consequence to the resource: the fleet is of sufficient size to assure consumption of both quotas.

The spring sablefish season has in the past been associated with severe weather that exacerbates the dangerous working conditions in the commercial fishery. Opening the sablefish season following the annual transition from winter to summer weather patterns on May 1 will reduce the amount of time required to prepare maintenance facilities, enhance the quality and value of the product, and would allow a significant opportunity for fishermen to prepare their vessels and operate in a manner to reduce the hazards they face in an already dangerous occupation.

Sincerely,



Alec Brindle
President

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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ALASKA CRAB COALITION

3901 Leary Way (Bldg.) N.W., Suite #6 • Seattle, WA 98107 • (206) 547-7560 • FAX (206) 547-0130

November 16, 1990

TO: Mr. Don W. Collinsworth, Chairman
North Pacific Fishery Management Council
P.O. Box 103136
Anchorage, Alaska 99510

FROM: Arni Thomson, Executive Director *Arni Thomson*

RE: REQUEST FOR EXEMPTION OF ALEUTIANS AREA FROM NPFMC
PROPOSED ACTION TO PROHIBIT LONGLINING OF POTS FOR
GROUNDFISH IN THE GULF OF ALASKA AND BERING SEA/
ALEUTIAN ISLANDS

The Alaska Crab Coalition supports the proposed regulatory amendment to prohibit longlining of pots for groundfish in the Gulf of Alaska and Bering Sea to avoid future problems of grounds preemption and gear conflicts.

prohibit
However, the Board of Directors of the ACC, at a recent meeting, brought it to my attention that there is virtually no sound reason to ~~exempt~~ ^{prohibit} longlining with pots for Pacific cod in the Aleutians area. Longlining of pots for golden king crab and sablefish, has been customary gear in this area since the early 1980s.

A fleet of 20 or more vessels have been fishing the Western Aleutians area with pot longline gear, almost 10 months a year since 1984 for golden king crab. Harvests have been averaging between 9 to 10 million pounds per year. The equipment and gear investment for the fishery is quite costly, at around \$250,000 per vessel. The same gear, with modifications, could also be used to fish Pacific cod in that area, in the event that crab stocks decline. A number of the boats that fish this remote area, are large crab catcher processors with the optional capability of freezing cod.

In Closing, I would add that gear conflicts have been minimal in this area and the ACC hopes the NPFMC will approve the exemption of the Aleutians area from the pot longlining prohibition.

Enclosures: 2 chartlets

NOV 30 1990

Dan Falvey
Box 6083
Sitka, AK 99835
November 15, 1990

NPFMC Members
c/o Clarence Pautzke
Executive Director
P.O. Box 103136
Anchorage, AK 99510

Dear Mr. Pautzke;

I am writing this letter in response to the request for public comment on GOA sablefish opening dates published in the NPFMC's October '90 newsletter. In the newsletter, the proposed regulatory amendment to change the opening of sablefish is coupled with a proposal for a Gulfwide closure for sablefish that would be triggered by the closure of the Eastern Gulf to sablefish. These are two very different issues that need to be identified as such and addressed separately by the Council.

In regards to the first issue, I am in favor of changing the opening date for sablefish to May 1 and allowing the fishery to continue until the quotas or PSC's in each area are caught. A May 1 opening date allows more time for the halibut schools to move into shallow water, thus resulting in a lower by-catch rate. May 1st will also provide an increased margin of safety for the fleet due to the more favorable weather that can be expected.

In regards to the second issue, I strongly ~~oppose~~ a regulatory measure that uses the Eastern Gulf as a trigger for the closure of blackcod in the rest of the Gulf. Many blackcod fishermen start their season in the Eastern Gulf then move west after their first trip in order to fish a longer season where it is less crowded. If the Eastern Gulf closes when the Eastern Gulf's quota is reached, there will be no incentive for these fishermen to move west. The overcrowding in the Eastern Gulf will become much worse causing by-catch rates to go up as fishermen are forced into shallower water where they would not normally fish. This concentration of the fleet in the Eastern Gulf will also spill over into the (area 2C) Halibut fishery. The Southeast halibut openings have traditionally occurred when many of the larger boats are spread across the Central and Western Gulf fishing blackcod. The economic hardship that will result from these boats remaining in the Eastern Gulf and displacing the traditional 2C halibut fleet will affect not only the fishermen involved, but many of the communities in

Southeast Alaska as well.

Overcrowding on the grounds is the number one problem in the sablefish fishery today. It leads to gear loss, wastage of the resource, and high by-catch rates. This fact has been repeated time and time again by virtually every fisherman who has testified in the five years that the Council has been studying the problems of the sablefish fishery. I cannot believe it will be in the best interest of the fishery to adopt a regulation that will encourage more crowding in an already overcrowded area. What is needed is a comprehensive effort reduction and by-catch management program such as that which workable IFQ system would provide. This regulation will do nothing to decrease the effort and by-catch problems we face, in fact it will actually increase them in the Eastern Gulf.

In conclusion, while I support moving the opening date of the GOA sablefish fishery to May 1 or 15 and allowing the fishery to continue until the quota's or PSC's are reached in each area; I am adamantly opposed to a Gulfwide closure for sablefish that coincides with the closing of the Eastern Gulf to sablefish. These are two separate issues and I would urge the Council to treat them as such and address them separately. The hardship that this regulation (as it's currently written) will impose on the fishermen, communities, and the stocks of both halibut and sablefish in the Eastern Gulf, will far outweigh any benefits it might have in the other areas.

Thank you for your time and consideration on this matter.

Sincerely,

Dan Falvey

Dan Falvey

F/V SEABOY

**ENVIRONMENTAL ASSESSMENT
and
REGULATORY IMPACT REVIEW/INITIAL REGULATORY FLEXIBILITY ANALYSIS
OF A REGULATORY AMENDMENT TO
PROHIBIT THE USE OF POT LONGLINES
IN THE GROUND FISH FISHERIES OFF ALASKA**

SUMMARY

The use of pot longline gear in the groundfish fisheries off Alaska may result in gear conflicts with trawl and hook-and-line gear. Pot longline gear also may preempt fishing grounds if users of hook-and-line and trawl gear decide not to fish in certain areas because of concern over gear conflicts. Forty-seven vessels were permitted to use pots in 1990, based on the NMFS permit database. While all these vessels are believed to be using single line pot gear, the use of pot longlines in the future could increase. Potential gear conflicts could be prevented if the use of pot longline gear is prohibited throughout the Gulf of Alaska and/or the Bering Sea and Aleutian Islands area. Because an established fishery for brown king crab in the Aleutian Islands already exists, an exception to the prohibition might be made in the Aleutian Islands, whereby the use of pot longlines could continue to be allowed.

INTRODUCTION

The domestic and foreign groundfish fisheries in the EEZ of the Gulf of Alaska and Bering Sea and Aleutian Islands area are managed by the Secretary of Commerce (Secretary) under the Fishery Management Plans (FMPs) for Groundfish of the Gulf of Alaska and the Groundfish Fishery of the Bering Sea and Aleutian Islands Area. The FMPs were prepared by the North Pacific Fishery Management Council (Council) under the Magnuson Fishery Conservation and Management Act (Magnuson Act) and 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.

At times, amendments to the FMPs and/or their implementing regulations are necessary to resolve problems pertaining to management of the groundfish fisheries. The structure of the FMP provides for changes to seasons by amending regulations (regulatory amendments) without accompanying amendments to the FMP. This Environmental Assessment/Regulatory Impact Review/Initial Regulatory Flexibility Analysis (EA/RIR/IRFA) addresses a regulatory amendment that proposes to prohibit the use of longlines in the groundfish pot fisheries.

A description of, and reasons for, the changes follow:

Current types of fishing gear used in the groundfish fishery in the Gulf of Alaska (GOA) and in the Bering Sea and Aleutian Islands area (BSAI) include trawl, hook-and-line, and pot gear.

1

With one exception, none of these gear types is prohibited in any of the groundfish fisheries. An exception exists in the GOA where pots are prohibited in the sablefish fishery. Pots were prohibited in this fishery as a result of Amendment 14 to the GOA FMP.

Pots are used mostly to fish Pacific cod in the GOA and BSAI. They may be deployed with single lines, i.e., each pot is set individually. They also may be deployed with longlines, i.e., several pots may be set in a string, or longline.

Hook-and-line gear may be set similarly, i.e., one or more hooks may be attached to a single line. Or, hooks may be attached to a longline. For purposes of this analysis, hook-and-line gear means longline gear. Both hook-and-line and pot longline gear can be employed in long skates that may be 2 to 4 miles long. They are laid on the sea bed with their ends connected to float lines for identification and retrieval. Each pot may weigh 100-125 pounds, and as many as 24 pots may be fished on a string. The groundline used to secure a pot string is much thicker ($3/4$ inch in diameter) and stronger (breaking strength = 10,400 pounds) than the groundline used for a hook-and-line string ($5/16$ inch in diameter; breaking strength 3,000 pounds). The pot gangion (cord between the pot and the groundline) is thicker and stronger ($5/16$ inch; breaking strength = 3,000 pounds) than the hook gangion (#36, #43, or #48 cord; breaking strength about 288-300 pounds).

Pot longlines are usually laid parallel to depth contours, while hook-and-line strings are laid obliquely across depth contours. Because pot longlines are much heavier than hook-and-line gear, the use of pot longlines potentially is incompatible with hook-and-line gear when employed on the same fishing grounds. Hook-and-line gear usually cannot be retrieved if it is placed first and is then overlaid by a pot longline. Furthermore, if a hook-and-line string has been placed over a pot longline and then snags the latter, it often cannot be retrieved. Pot longlines, however, can be retrieved even when overlaid with hook-and-line strings, but usually will shear the fishing lines, or gangions, from the hook-and-line string. Thus, pot longlines effectively preempt the fishing grounds, forcing hook-and-line gear out. In addition, entire pot longlines may be lost on the fishing grounds and not recovered. To avoid entanglement, hook-and-line fishermen must avoid areas where such loss has occurred.

The use of pot longlines may also be incompatible with trawl gear. An encounter by a moving trawl with a single pot attached to a longline results in the entire pot longline being picked up. If a pot longline has been abandoned at sea, it can continue to be encountered by trawl gear for several years.

According to the NMFS permit database, 32 vessels were permitted to use pot gear in 1989. Of these, 20 were catcher vessels and 12 were catcher/processor vessels. The number of vessels permitted to use pot gear in 1990 is 47, representing a 46 percent increase. Of these, 40 are catcher vessels and 7 are catcher/processor vessels.

Information is not available that would indicate that any of these 47 vessels is using pot longline gear. All are assumed to be using single line pot gear, in which each pot is attached to a surface buoy by a single line. Some industry representatives, however, believe that some vessels intend to begin using pot longline gear in 1991.

Consideration of incompatibilities among these gear types is pertinent, especially with respect to the Pacific cod fishery. Pacific cod harvests by all three gear types likely will increase in 1991. In 1990, total DAP catches of Pacific cod in the GOA and BSAI were 69,000 metric tons (mt) and 155,000 mt, respectively, through November 3, 1990. These harvests represent increases of 65 percent and 22 percent over 1989 DAP harvests. The 1990 Pacific cod catch by pot gear was 3 percent of the total cod catch, or 6,484 mt (Table 1). While this amount was small compared to hook-and-line and trawl gear, catches by pot gear are expected to increase in 1991 and future years.

Table 1. Summary of Pacific cod catches (mt) by gear type in the Bering Sea/Aleutians Islands and Gulf of Alaska (Source: NMFS 1990 DAP Groundfish Report through 11/10/90).

	Gulf of Alaska	Bering Sea	Aleutians	Total
Gear Pot	5,149	1,335	1	6,485
Trawl	58,158	106,643	6,694	171,495
H&L	5,880	40,648	484	47,012
Total	69,187	148,626	7,179	224,992

While the number of vessels using pot gear is presently small, as well as the amount of Pacific cod being harvested by pot gear, the potential exists that the number of vessels will increase. Increased fishing effort will result in increased catches Pacific cod. Increases in gear conflicts and ground preemptions could increase as a result.

The Council received requests from representatives of vessels using trawl and hook-and-line gear that the use of pot longline gear should be prohibited. The purpose of the request is to preclude gear conflicts and ground preemptions that otherwise could occur in the future if vessels commenced using pot longline gear. Based on the industry request, the Council

requested staff to prepare a regulatory amendment, which if implemented by the Secretary of Commerce, would prohibit pot longline gear in all or part of the Gulf of Alaska (GOA) and Bering Sea and Aleutian Islands area (BSAI).

ALTERNATIVES

Alternatives include:

Alternative 1. Retain the regulatory status quo, i.e., allow the use of pot longline gear.

Under this alternative, the use of pot longline gear would continue to be allowed in all groundfish fisheries, except the Gulf of Alaska sablefish fishery.

Alternative 2. Prohibit the use of pot longline gear.

- Option A. Prohibit the use pot longline gear in the GOA and in the Bering Sea (BS) and Aleutian Islands (AI).
- Option B. Same as Option A, but the Aleutians Islands (AI) would be exempt from the prohibition.
- Option C. Prohibit the use pot longline gear in the GOA only.
- Option D. Prohibit the use pot longline gear in the BS only.

ENVIRONMENTAL IMPACTS OF THE ALTERNATIVES

Socioeconomic Impacts

Alternative 1. maintain the status quo.

Under this alternative, the use of pot longline gear would be allowed throughout the GOA (except the sablefish fishery) and BSAI. Assuming that vessels commence using pot longline gear in the groundfish fishery, gear conflicts and ground preemptions would occur. Although conflicts would occur even if single line pots were deployed, conflicts would be exacerbated, because the use of a longline to connect the pots would result in the entire string being snagged, instead of a single pot.

Vessels using trawl and hook-and-gear might decline to fish in areas where pot longline gear was set. Although they would probably find fishing grounds elsewhere, additional costs would be incurred as a result of searching for acceptable fishing grounds.

Enforcement costs could be expected to be higher, if the use of pot longline gear were to increase. The State of Alaska prohibits the use of pot longline gear in the crab fisheries.

State regulations could be confounded to the extent that fishermen were using pot longline gear to fish for crab in the guise of fishing for groundfish.

Alternative 2.

Under this alternative, pot longline gear would be prohibited in either or both the Gulf of Alaska and the Bering Sea. Because no vessels appear to be using pot longline gear, no actual costs would be imposed on fishermen as a result of the prohibition.

Nonetheless, future use of pot longline gear would be prohibited. No gear conflicts or ground preemptions of the types described above would occur. Because single line pots would continue to be permissible on the fishing grounds, hook-and-line and trawl vessels could still encounter them. The difference is that the encounter would be with a single pot, not the entire string.

Accommodating the State of Alaska's regulations prohibiting pot longline gear would be promoted if this gear type were also prohibited in the groundfish fishery.

Under Option B of this alternative, pot longline gear would be allowed in the Aleutain Islands subarea. A fishery for brown king crab is conducted in the Adak and Dutch Harbor areas.

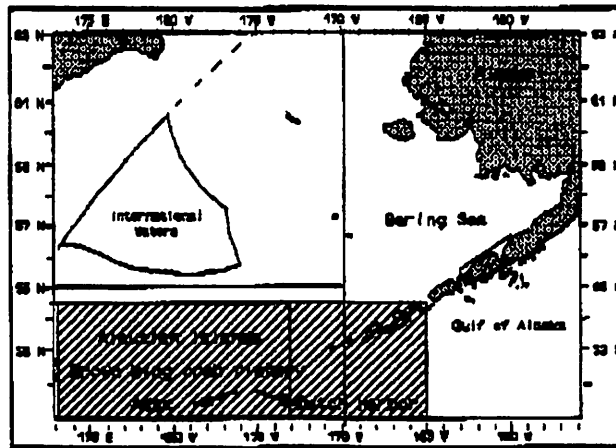


Figure 1. Adak and Dutch Harbor king crab fishery management areas.

As many as 15 vessels participate in this fishery. Because the fishery is conducted in deep water (400 fathoms) along the continental slope, fishermen use pot longline gear to facilitate retrieval of pots. These vessels often catch Pacific cod for

crab bait. If pot longline gear were prohibited, use of such gear for catching groundfish for crab bait would be prohibited. Further, to facilitate enforcement, prohibiting the use of this gear in the brown king crab fishery likely would be necessary. Single line pot gear is not practical, because the water is too deep and the seabed too precipitous. The probability of losing single line pots is high. Fishermen are expected to forego this fishery as a result. . The exvessel value of this fishery is about \$40 million annually.

Ecological Impacts

Alternatives 1 and 2

No ecological impacts are expected as a result of this alternative, unless the use of pot longline gear were to increase. An entire string of pots could be lost if means to retrieve it, e.g. surface buoys, were also lost. Ghost fishing would continue until the required biodegradable panel opened, allowing subsequently captured animals to escape. Even single line pots, however, are lost. No information is available to indicate any difference in numbers of pots lost if set with single lines or with longlines.

Alternative 2.

FINDINGS OF NO SIGNIFICANT ENVIRONMENTAL IMPACT

For the reasons discussed above, neither implementation of the proposed action nor any of the alternatives to that action would significantly affect the quality of the human environment, and the preparation of an environmental impact statement on the preferred action is not required by Section 102(2)(C) of the National Environmental Policy Act or its implementing regulations.

DATE

COORDINATION WITH OTHERS

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

LIST OF PREPARERS

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Fishery Management Biologist
National Marine Fisheries Service
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