

ENVIRONMENTAL ASSESSMENT/REGULATORY IMPACT REVIEW/
INITIAL REGULATORY FLEXIBILITY ANALYSIS

FOR
AMENDMENT 17
TO THE FISHERY MANAGEMENT PLAN FOR
THE GROUND FISH FISHERY OF THE BERING SEA AND ALEUTIAN ISLANDS
AREA AND
AMENDMENT 22
TO THE FISHERY MANAGEMENT PLAN FOR
GROUND FISH OF THE GULF OF ALASKA

AND FOR
A REGULATORY AMENDMENT TO DEFINE GROUND FISH POTS

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**SUMMARY OF AMENDMENTS 17 AND 22
TO THE GROUND FISH FISHERY MANAGEMENT PLANS
FOR THE BERING SEA AND ALEUTIAN ISLANDS
AND THE GULF OF ALASKA**

As part of the annual July/June plan amendment cycle for the Bering Sea/Aleutian Islands (BSAI) and the Gulf of Alaska (GOA) groundfish fishery management plans (FMPs), the North Pacific Fishery Management Council (Council) reviews proposed changes submitted by the public and management agencies. Upon recommendations of the Plan Amendment Advisory Group, the Advisory Panel, and the Scientific and Statistical Committee, the Council forwards the proposals that merit further consideration to the Plan Teams following the September Council meeting. The Plan Teams prepare a draft amendment package, including a draft environmental assessment/regulatory impact review/initial regulatory flexibility analysis (EA/RIR/IRFA).

The Council considers the appropriateness of the draft EA/RIR/IRFA) at its April meeting and instructs Council staff to submit it for public review. At its June meeting, the Council reviews public comments received and recommends which parts of the amendment package should be submitted to the Secretary of Commerce for approval and implementation.

At its September 1990 meeting, the Council selected five amendments and requested participating staff to prepare draft analyses for each amendment such that the Council would have them for review at its April 23-26, 1991 meeting. Analyses are provided herein for each amendment with two exceptions.

First, a proposed amendment to establish a biennial cycle for Stock Assessment and Fishery Evaluation (SAFE) Reports and for the FMP amendment cycle itself was not analyzed. The analysis was not done upon receiving NMFS advice that the "602 regulations" require SAFE reports to be reviewed annually, suggesting that SAFE Reports would likely be amended anyway after the annual review. Also, Council Standard Operating Procedures should be the vehicle to stipulate a biennial amendment cycle, obviating the need to include a biennial amendment cycle in the FMPs.

Second, a proposed amendment to require reporting of all fish retained in a groundfish fishery was not analyzed. This proposal was intended to provide NMFS the means through recordkeeping requirements to measure all fish and fish products on board a vessel for purposes of enforcing the directed fishing definition. The analysis was not done upon the advise of NMFS that NMFS is already able to make such measurements even without additional recordkeeping requirements.

At its April 1991 meeting, the Council considered draft analyses for three amendments included herein. The Council considered two other measures as well. First, an FMP amendment to establish the Bogoslof District in the BSAI for purposes of managing pollock is proposed, which follows up an emergency rule that was in effect during early 1991. Second, a regulatory amendment is proposed by the Alaska Department of Fish and Game to define a groundfish pot differently from a king or Tanner crab pot. Draft analyses for these two measures are included in this EA/RIR/IRFA. The Council approved each analysis and directed Council staff to release the draft EA/RIR/IRFA for Amendment 17/22 to the public for review. Final Council action is scheduled for the June Council meeting. Description summaries of these proposals follow:

1. Authorize experimental fishing permits:

An FMP amendment is proposed whereby the Regional Director, in consultation with the Council and Alaska Fishery Science Center, may issue experimental fishing permits to persons for purposes of obtaining information necessary to promote fishery conservation and management of the fisheries.

2. Establish Walrus Islands groundfish fishing closures:

An FMP amendment is proposed which would institute protective measures for the Walrus Islands in northern Bristol Bay. The 12-mile buffer zone created in 1989 will expire at the end of 1991.

3. Rescind GOA statistical area 68:

An FMP amendment is proposed to delete statistical area 68 (East Yakutat District), because it is not needed for fishery conservation and management and is imposing, therefore, unnecessary recordkeeping and reporting costs.

4. Establish the Bogoslof District:

An FMP amendment is proposed which would create a separate statistical subarea around the area of Bogoslof Island. This measure would allow for the establishment of a separate Total Allowable Catch (TAC) for pollock in this subarea.

5. Definition of a groundfish pot:

A regulatory amendment is proposed that would define a groundfish pot to differentiate it from king crab and Tanner crab pots.

1.0 INTRODUCTION

The domestic and joint venture groundfish fisheries in the exclusive economic zone (3-200 miles offshore) of the Gulf of Alaska and the Bering Sea/Aleutian Islands are managed under the Fishery Management Plans (FMPs) for Groundfish of the Gulf of Alaska and the Groundfish Fishery of the Bering Sea/Aleutian Islands. These FMPs were developed by the North Pacific Fishery Management Council (Council) under the Magnuson Fishery Conservation and Management Act (Magnuson Act).

The GOA FMP was approved by the Secretary of Commerce (Secretary) and became effective on December 1, 1978 (43 FR 52709, November 14, 1978) It is implemented by Federal regulations appearing at 50 CFR Parts 611, 620, and 672. Nineteen amendments to the GOA FMP have been approved by the Secretary. Amendment 19 (sablefish effort limitation measures) and 20 (inshore-offshore allocations) are currently being prepared by the Council.

The BSAI FMP was approved by the Secretary and became effective on January 1, 1982 (46 FR 63295, December 31, 1981) and is implemented by Federal regulations appearing at 50 CFR Parts 611, 620, and 675. Amendments 1-5, 7-13, and 16 have been approved by the Secretary. Amendment 16a is currently being reviewed by the Secretary. Amendment 6 was adopted by the Council but was disapproved by the Secretary. Amendment 14 (sablefish effort limitation measures) and 15 (inshore-offshore allocations) are currently being prepared by the Council.

1.2 Purpose of the Document

This document provides background information and assessments necessary for the Secretary of Commerce to determine that the FMP amendments are consistent with the Magnuson Act and other applicable law.

1.2.1 Environmental Assessment

One part of the package is the environmental assessment (EA) that is required by NOAA in compliance with the National Environmental Policy Act of 1969 (NEPA). The purpose of the EA is to analyze the impacts of major federal actions on the quality of the human environment. The EA serves as a means of determining if significant environmental impacts could result from a proposed action. If the action is determined not to be significant, the EA and resulting finding of no significant impact (FONSI) would be the final environmental documents required by NEPA.

An EIS must be prepared if the proposed action may be reasonably expected to: (1) jeopardize the productive capability of the target resource species or any related stocks that may be affected by the action; (2) allow substantial damage to the ocean and coastal habitats; (3) have a substantial adverse impact on public health or safety; (4) affect adversely an endangered or threatened species or a marine mammal population; or (5) result in cumulative effects that could have a substantial adverse effect on the target resource species or any related stocks that may be affected by the action.

This EA is prepared to analyze the possible impacts of management measures and their alternatives that are contained in Amendment 17/22 as well as the proposed regulatory amendment to define groundfish pots.

Certain management measures are expected to have some impact on the environment. Such measures are those directed at harvests of stocks and may occur either directly from the actual harvests (e.g. removals of fish from the ecosystem) or indirectly as a result of harvest operations (e.g.

effects of bottom trawling on the benthos--animals and plants living on, or in, the bottom substrate). Environmental impacts of management measures may be beneficial when they accomplish their intended effects (e.g. prevention of overharvesting stocks as a result of quota management). Conversely, of course, such impacts may be harmful when management measures do not accomplish their intended effects (e.g. overharvesting may occur if quotas are incorrectly specified). Environmental impacts that may occur as a result of fishery management practices are categorized as changes in predator-prey relations among species in the ecosystem, physical changes as a direct result of fishing practices, and nutrient changes due to processing and dumping of fish wastes.

1.2.2 Regulatory Impact Review

Another part of the package is the Regulatory Impact Review (RIR) that is required by National Marine Fisheries Service (NMFS) for all regulatory actions or for significant Department of Commerce or NOAA policy changes that are of significant public interest. The RIR: (1) provides a comprehensive review of the level and incidence of impacts associated with a proposed or final regulatory action; (2) provides a review of the problems and policy objectives prompting the regulatory proposals and an evaluation of the major alternatives that could be used to solve the problems; and (3) ensures that the regulatory agency systematically and comprehensively considers all available alternatives so that the public welfare can be enhanced in the most efficient and cost effective way.

The RIR also serves as the basis for determining whether any proposed regulations are major under criteria provided in Executive Order 12291 and whether or not proposed regulations will have a significant economic impact on a substantial number of small entities in compliance with the Regulatory Flexibility Act (P.L. 96-354, RFA). The primary purpose of the RFA is to relieve small businesses, small organizations, and small governmental jurisdictions (collectively, "small entities") of burdensome regulatory and recordkeeping requirements. This Act requires that if regulatory and recordkeeping requirements are not burdensome, then the head of an agency must certify that the requirement, if promulgated, will not have a significant effect on a substantial number of small entities.

This RIR analyzes the potential impacts of alternatives considered for Amendment 17/22. It also provides a description of and an estimate of the number of vessels (small entities) to which regulations implementing these amendments would apply.

1.3 Catch and Value of Groundfish in the Alaska EEZ.

In the BSAI, domestic harvests increased from 1.24 million mt in 1989 to over 1.7 million mt in 1990, an increase of 37 percent. Domestic (domestic annual processing=DAP) catches of pollock increased by 37 percent, from nearly 1,016,000 mt to nearly 1,390,000 mt. DAP catches of Pacific cod, Pacific ocean perch, Atka mackerel, arrowtooth flounder and yellowfin sole also increased markedly.

1.4 Description of the 1991 Domestic Fishing Fleet Operating in the Alaska EEZ.

The NMFS vessel permit database has been examined to determine the current composition of the domestic groundfish fishing fleet. A total of 2,070 vessels were Federally permitted to fish for groundfish in the Bering Sea and Gulf of Alaska in 1990. This value is based on the number of 1990.

Through March 19, 1991, 1,737 vessels have been permitted (Table 1.1). This number will increase, especially as a result of newly permitted hook-and-line vessels prior to the start of the May 15, 1991 sablefish fishery.

Fishing operations in which these vessels participate include: harvesting only, harvesting and processing, processing only, and support. The latter type of operation includes transporting fishermen, fuel, groceries, and other supplies to other vessels.

Of the total 1,737 vessels, 96%, or 1,673, are five net tons or larger. Four percent, or 64 vessels, are less than five net tons.

Vessels Five Net Tons or Larger

The larger vessels, i.e., those that are 5 net tons or larger, are based in Seattle, Sitka, Kodiak, and Dutch Harbor, and other ports. Most of these larger vessels come from Alaska, based on telephone area codes given with permit applications. The numbers of vessels that come from Alaska is 1,017, the number from the Seattle area is 465, and the number from other areas is 191 (Table 1.2). The total number of catcher vessels (harvesting only) and catcher/processor vessels (harvesting/processing) is 1,431 and 156, respectively (Tables 1.3 and 1.4).

Vessels involved in harvesting only (CATCHER VESSELS) employ mostly three types of gear: hook-and-line, trawls, or pots. Most of the catcher vessels are hook-and-line vessels and number 796 (Table 1.3). They are the smallest vessels fishing groundfish, having average lengths of 47 feet and average net tonnages of 26 NT. Pot vessels number 65. They have average lengths of 85 feet and average net tonnages of 108 NT. Trawl vessels number 124. They have average lengths of 103 feet and average net tonnages of 148 NT.

Vessels involved in harvesting and processing (CATCHER/PROCESSOR VESSELS) also employ mostly hook-and-line, trawls, or pots. The number of catcher/processor vessels using hook-and-line gear is 40 (Table 1.4). These vessels are the smallest of the catcher/processor vessels but are larger than the catcher vessels using hook-and-line gear. They have average lengths of 107 feet and average net tonnages of 198 NT. Pot vessels number 10. They have average lengths of 149 feet and average net tonnages of 323 NT. Trawl vessels number 68. They have average lengths of 102 feet and average net tonnages of 170. NT.

Some vessels are involved in processing only (motherships). These vessels average 3,306 net tons and lengths of 271 feet.

The number of vessels by length, by gear type, and by operating mode varies. Table 1.5 summarizes these parameters.

Table 1.1 Numbers of groundfish vessels that are less than 5 net tons or 5 net tons and larger that are Federally permitted in 1991 to fish off Alaska. NMFS data through 03/19/91.

Mode	Number of Occurrences		
	< 5 nt	>= 5 nt	Total
CATCHER	62	1431	1493
CATCHER/PROCESSOR	0	156	156
PROCESSOR	0	25	25
SUPPORT ONLY	0	35	35
OTHER	2	26	28
TOTAL	64	1673=	1737

Table 1.2 Numbers of groundfish vessels that are Federally permitted to fish off Alaska in 1991 from the Seattle area, Alaska and from other areas. All vessels 5 net tons or larger.

Mode	Number			Total
	Seattle Area	Alaska	Other Areas	
CATCHER	296	970	165	1431
CATCHER/PROCESSOR	105	30	21	156
PROCESSOR	22	3	0	25
SUPPORT ONLY	30	4	1	35
OTHER	12	10	4	26
TOTAL	465	1017	191	1673

Table 1.3 Numbers and statistics of CATCHER VESSELS by gear type that are Federally permitted to fish off Alaska in 1991. All vessels 5 net tons or larger.

Mode	Avg. Number	Avg. Net Tons	Length (ft)
HOOK-AND-LINE	796	26	47
POTS	65	108	85
TRAWL	124	148	103
OTHER GEAR 1/	446	54	60
TOTAL	1431		

1/ Other gear includes combinations of hook-and-line, pots trawls, jigs, troll gear, and gillnets.

Table 1.4 Numbers and statistics of CATCHER/PROCESSOR and PROCESSOR VESSELS by gear type that are Federally permitted to fish off Alaska in 1991. All vessels 5 net tons or larger.

	Avg Number	Avg NT	length (ft)
CATCHER/PROCESSOR			
HOOK-AND-LINE	40	198	107
POTS	10	323	149
TRAWL	68	972	213
OTHER GEAR 1/	38	170	102
TOTAL	156		
PROCESSOR	25	3306	271

1/ Other gear includes combinations of hook-and-line, pots, trawls, jigs, troll gear, and gillnets.

Table 1.5 Numbers of vessels Federally permitted to fish off Alaska in 1991 by 25-foot length increments, by gear type and by operating mode. Support vessels are excluded. Other = multiple gear. NMFS data through March 19, 1991

Length (ft)	Catcher				Catcher/Processor				Processor
	Trawl	Pot	LL	Other	Trawl	Pot	LL	Other	
<= 24	0	0	18	5	0	0	0	0	0
25 - 49	4	8	543	207	0	0	8	10	0
50 - 74	13	23	249	140	0	1	3	4	0
75 - 99	50	11	24	77	3	0	8	5	0
100-124	34	16	5	26	2	1	3	3	0
125-149	11	2	1	5	7	2	8	6	1
150-174	8	5	0	3	8	3	7	5	6
>= 175	5	0	0	0	48	3	3	5	18
SUBTOTALS	125	65	840	463	68	10	40	38	25
TOTAL CATCHER & PROCESSOR VESSELS					1674				
TOTAL SUPPORT VESSELS					35				
TOTAL OTHER MODES					28				
TOTAL VESSELS					1737				

2.0 EXPERIMENTAL FISHING PERMITS

2.1 Need for Action

Most information used in conservation and management of the Alaska groundfish fisheries results from fishery research. Such research is usually conducted by the NMFS Alaska Fishery Science Center, although it may also be conducted by the Alaska Department of Fish and Game, the University of Alaska, etc. Fishery research is not governed by Magnuson Act authority, i.e., it is not controlled by Federal regulations implementing the FMPs.

Some information also could be obtained from properly controlled fishery experiments if authorized by the FMPs. No technical differences exist between what could be considered to be research and experiments. Types of experiments that might be conducted under the authority experimental fishing permits include:

Fishing in areas where the total allowable catch (TAC) has been reached, e.g. determine abundance of minor target species components of a complex;

Fishing with gear types otherwise prohibited; and

Fishing in areas otherwise closed to all fishing.

When TAC remains, any mortality resulting from experimental fishing will be counted against TAC. If TAC does not remain, then any mortality will be compared only to overfishing definition. Gaps in fishery information exist that might be filled by either research or fishery experiments. For example, gear designs to reduce incidental catches of prohibited species while maximizing groundfish catches could be improved by either research or fishery experiments.

Neither groundfish FMP currently authorize fishery experiments, or specific harvests of groundfish to support experiments. This amendment proposes to establish that authorization.

2.2 The Alternatives

2.2.1 Alternative 1: Do nothing

Under this alternative, any requests to conduct fishery experiments must be rejected, because the FMPs do not authorize such experiments. Opportunities to collect information that might be useful for fishery conservation and management would be lost.

2.2.2 Alternative 2: Implement a process for allowing experimental fishing.

Three options are considered under this alternative. Each option pertains to the level of review required by either the Regional Director and/or the Council. Application requirements and approval procedures are the same under each option.

Under Option 1, only the Regional Director, in consultation with the Alaska Fishery Science Center, would review and take action to approve or deny an experimental fishing permit. The Council would be notified of any decision by the Regional Director, but otherwise would not be involved. Under Option 2, the Council would always be consulted by the Regional Director. No exceptions would be made. Under Option 3, provision for expedited review by the Regional Director would be made.

Option 3 would allow the Regional Director, in consultation with the Alaska Fishery Science Center, to publish a notice of application receipt in the Federal Register with a brief description of the proposal and a cut)off date for receipt of additional applications to participate in the same or a similar experiment, or statement of reasons why participation is limited to the applicant.

Under either option for Alternative 2, both FMPs would be amended to authorize experimental fishing that would otherwise be prohibited. Implementing regulations might be implemented with the following provisions:

No experimental fishing may be conducted unless authorized by an experimental fishing permit issued by the Regional Director to the participating vessel.

Application Requirements

An applicant for an experimental fishing permit shall submit to the Regional Director a written application including:

1. A statement of the purpose and goal of the experiment, including justification explaining why issuance of experimental fishing permit is warranted;
2. Technical details about the experiment, including the area and timing of the experiment, vessel and gear to be used, experimental design, scientific staffing for the experiment, sampling procedures, the data and samples to be collected, analysis of the data and samples, provision for public release of all obtained information, and submission of interim and final reports;
3. A description of the species to be harvested, amount of such harvest necessary to conduct the experiment, and arrangement for disposition of all species taken;
4. The willingness of the applicant to carry observers, if required by the Regional Director, and a description of accommodations and work space for the observer(s); and
5. Details for all coordinating parties engaged in the experiment and signatures of all representatives of all principal parties.

Review Procedures

The Regional Director, in consultation with the Alaska Fishery Science Center, will review each application and will make a preliminary determination whether the application contains all the information necessary to determine if the proposal constitutes a valid experimental program

appropriate for further consideration. If the Regional Director finds any application does not warrant further consideration, both the applicant and the Council will be notified in writing of the reasons for the decision. If the Regional Director, after consulting with the Alaska Fishery Science Center, determines any application warrants further consideration, a notice of receipt of the application will be published in the Federal Register with a brief description of the proposal. The notice may establish a cut)off date for receipt of additional applications to participate in the same or a similar experiment. The Regional Director also will forward copies of the application to the Council. If the Regional Director finds the application is complete and warrants further consideration, he will consult with the Council concerning the permit application. The Council shall notify the applicant in advance of the meeting, if any, at which the application will be considered, and invite the applicant to appear in support of the application if the applicant desires.

Notifying the Applicant

The Regional Director shall notify the applicant in writing of the decision to grant or deny the experimental fishing permit as soon as practicable after the expedited review or after consulting with the Council, and, if denied, the reasons for the denial.

Grounds for Denial

Grounds for denial of an experimental fishing permit include, but are not limited to, the following:

1. The applicant has failed to disclose material information required, or has made false statements as to any material fact, in connection with the application; or
2. According to the best scientific information available, the harvest to be conducted under the permit would detrimentally affect any species of fish in a significant way; or
3. Issuance of the experimental fishing permit would inequitably allocate fishing privileges among domestic fishermen or would have economic allocation as its sole purpose; or
4. Activities to be conducted under the experimental fishing permit would be inconsistent with the intent of this section or the management objectives of the FMP; or
5. The applicant has failed to demonstrate a valid justification for the permit; or
6. The activity proposed under the experimental fishing permit could create a significant enforcement problem.
7. The applicant failed to make available to the public information that had been obtained under a previously issued experimental fishing permit.

In the event a permit is denied on the basis of incomplete information or design flaws, the applicant will be provided an opportunity to resubmit the application. If, however, a permit is denied because experimental fishing would detrimentally affect fish stocks, have economic allocation as its sole

purpose, be inconsistent with the management objectives of the FMP, or create significant enforcement problems, the decision of the Regional Director will be the final action of the agency.

If the permit is granted, the Regional Director will publish a notice in the Federal Register describing the experimental fishing to be conducted under the experimental fishing permit.

The Regional Director may attach terms and conditions to the experimental fishing permit consistent with the purpose of the experiment. Unless otherwise specified in the experimental fishing permit or a superseding notice or regulation, an experimental fishing permit is effective for no longer than one year unless revoked, suspended, or modified. Experimental fishing permits may be renewed following the above application procedures.

Predicting what types of information collections might be authorized by experimental fishery permits is not practical. Each type will be considered on a case-by-case basis when reviewing the application for an experimental fishing permit.

2.3. Environmental impacts of the alternatives

2.3.1 Biological and Environmental Impacts

2.3.1.1 Alternative 1.

Experimental fishing would not be authorized under this alternative. No changes in biological and environmental impacts would occur.

2.3.1.1 Alternative 2.

Experimental fishing might be allowed under this alternative. Biological and environmental impacts would depend on the type of experimental fishing that might be conducted. Information obtained might serve to reduce adverse impacts on the environment. For example, gear designs might be improved to catch more groundfish of a desirable size or species composition which would reduce amounts of groundfish that are discarded at sea as waste. Thus, fishing activities might become more efficient, reducing fishing activity otherwise required and reducing adverse impacts on the sea bed and associated animals and plant life.

2.3.2 Socioeconomic Impacts

2.3.2.1 Alternative 1.

Industry costs

No program for authorizing experimental fishing opportunities would be implemented under this alternative. Benefits that the fishing industry might have accrued from information obtained from experimental fishing would be foregone.

Management and Consumer Costs

No changes in management and consumer costs would occur as a result of this alternative.

2.3.2.2 Alternative 2.

Industry costs

Industry costs under this alternative are those associated with completing an application as well as actually accomplishing the fishery experiment. Information so obtained, however, might result in increased efficiency in fishing operations. In the long run, industry costs would be reduced.

Management and Consumer Costs

Management costs would be those processing the application for a fishery permit as well as those that might result from overseeing or participating in the fishery experiment. Consumer costs could be reduced if reduced industry costs are passed on to the consumer.

3.0 ESTABLISH WALRUS ISLANDS GROUND FISH FISHING CLOSURE

This management measure is before the Council not as a result of significant new biological or economic information, but rather due to the fact that the time/area closures are scheduled to expire at the end of 1991. Therefore, this section updates the analysis contained in the 1989 EA/RIR for Bering Sea Amendment 13.

3.1 Need for the Action

In 1987 and 1988 the number of walrus hauled out on Round Island (Walrus Islands State Game Sanctuary) and at Cape Peirce (Togiak National Wildlife Refuge) declined by more than 50%, coincident with the initiation of fishing for yellowfin sole in northern Bristol Bay. Personnel on Round Island reported frequent, loud noise on the island for the first time in 1987; the sounds heard were emanating from a fleet of vessels fishing for yellowfin sole. The frequency of other human related activities which are potentially disruptive to walrus (e.g., from other fisheries such as salmon, herring, etc.) have been relatively constant in northern Bristol Bay over the past few years. Conclusive data establishing a direct cause and effect between the sounds generated by the yellowfin sole fishery and the decline in walrus numbers are not available. However, in 1989 Federal and State agencies, Native groups, and conservation organizations were concerned that these sounds were likely disturbing walrus to the point of adversely affecting their use of beaches in the region for hauling out.

In 1989 the North Pacific Fishery Management Council (Council) reviewed the biological and hydroacoustic information available at the time. It recommended to the Secretary of Commerce that a 12 mile buffer zone be instituted around Round Island, The Twins Island group, and Cape Peirce. This buffer zone with a seasonal restriction on groundfish fishing was to stay in effect for two years at which time the Council wanted to review the status of the walrus populations and the effects of the closed areas. The buffer zone was approved by the Secretary (Amendments 18/13, NPFMC, 1989), became effective in 1990, and is due to expire at the end of 1991.

It is not clear which type of sound would disturb walrus the most, air or water borne. Waterborne sounds might discourage submerged walrus from even attempting to enter regions where traditional haulout beaches are located, while airborne sounds may chase animals off haulout beaches. Therefore, the types of sound to be controlled should be tailored to the type of protection desired. It has been suggested that the most probable noise disturbance of walrus haulouts in northern Bristol Bay is underwater vessel noises which may cause walrus to avoid returning to nearby haulout sites and go elsewhere instead (Hessing 1991; Hills 1991; Seagars 1991, personal communications). Since 1988 no fishing has occurred in the 12-mile buffer surrounding Round Island and the number of walrus seen on haulout beaches there has increased dramatically. However, numbers of walrus seen at haulout sites around Cape Pierce has decreased dramatically since 1988. To the extent that there may be interchange of walrus between the two haulout sites, it is difficult to draw any conclusions from these trends.

There are four zones of underwater noise influence to be considered when assessing the potential effects of man-made noise on walrus (Richardson and Malme 1991). The zone of audibility refers to an area where walrus might hear a noise. The zone of masking describes that area where a noise

level is high enough to interfere with other sounds such as communication and ambient noise. The zone of responsiveness is an area of greater intensity where a walrus would react to the noise. The zone of discomfort is the most extreme, a walrus could be damaged by the noise. The purpose of the measures in this document are to determine if a zone of responsiveness or masking exists and, if so, what measures can be taken to reduce them to a zone of audibility. No evidence suggests that a zone of discomfort is playing a part in walrus/fishery interactions in northern Bristol Bay at this time.

The following alternatives include proposals allowing (1) all the protective measures to expire, (2) making the twelve mile buffer zones permanent, and (3) closing an area shoreward from Cape Constantine to Cape Peirce. Options to each of the latter two alternatives which would extend the restrictions for five years are also included.

Background

3.1.1 Walrus

The Pacific walrus population is found almost entirely in the Bering and Chukchi seas. Walrus are marine mammals who can live, eat and sleep at sea. However, they spend a great deal of time resting on ice and, for breeding-age males, on coastal haulouts. During the early spring breeding period, two concentration areas exist in the Bering Sea, one of which is near Kuskokwim Bay. During summer adult females and juveniles are associated with the pack ice which moves north through Bering Strait, while most adult males move to coastal haulouts in Alaska and Chukotka (USSR). The males that use Bristol Bay haulouts may be those from the Kuskokwim breeding area. Studies to determine population distributions by use of DNA separation are now underway by the U.S. Fish & Wildlife Service (USFWS) and LGL Ecological Genetics.

When males first reach their coastal haulouts in Bristol Bay in mid-April to early May, many seem to be thin and exhausted and many also exhibit a high incidence of fresh wounds, possibly related to breeding activity (Hills 1991, personal communication). Throughout the summer cycle of feeding and resting they gain weight and heal. The typical summer activity cycle for bulls is a rest period at a haulout for 2-3 days and then at-sea activity for 10-14 days. Males often haul out in groups in what seems to be a loosely coordinated movement. Empty beaches can fill to over 1,000 animals hauled out in 12 hours (Hessing 1991, personal communication). They are very gregarious on haulouts. It has been noted that more walrus seem to haul out during flat calm days with grey skies (Hessing 1991, personal communication).

Walrus typically feed on bivalve mollusks in shallow continental shelf waters (Fay 1985). It is not known for certain where the walrus summering in Bristol Bay feed. Radio tracking of walrus during their time at-sea has shown that many are south of Round Island just below 58°N. It is suspected that this is an area where the bulls sleep and not necessarily where they feed (Hills 1991, personal communication). Movement to this area seems to be south from the Walrus Islands. Walrus returning to the islands seem to do so from the south although the direction can vary from as far east as the direction of Cape Constantine to a southwesterly direction. Those returning to Cape Peirce seem to do so from the direction of Hagemester Island (Hills 1991, personal communication).

All walrus molt (e.g. shed old hair) in the summer between May and September. In order to molt walrus must raise their skin temperature, and to do this they must leave the water. Those walrus associated with ice in the summer use it as a warming platform while most bulls use coastal haulouts. The molting process is gradual taking from six to eight weeks for mature bulls and a longer time for younger ones.

Walrus are legally taken by Alaskan Native subsistence hunters, the only people allowed to take walrus without permits as provided for in the Marine Mammal Protection Act (16 USC 1361 *et seq.*). There is also some illegal poaching. Virtually all hunting occurs to the north of Bristol Bay in the waters of the Gulf of Anadyr, the northern Bering Sea and Bering Straits, and along northern coastal Alaska (Seagers et al. 1989). Most hunting by Alaskan Natives occurs farther north than Bristol Bay (Taylor 1989).

The Soviet Union, the only other country in which the Pacific walrus is found, established 12-mile closures around all its coastal walrus haulouts in 1960 and terminated all ship-based walrus harvesting in 1990 (Popov 1991, personal communication). The benefits of the Soviet measures are unknown as walrus numbers increased across all areas from 1960 to 1985. Terrestrial walrus haulouts are a clearly identifiable habitat of considerable biological significance. The need to study and protect such areas was emphasized recently at an international workshop on walrus ecology and management (Fay et al. 1990). It is reported that repeated disturbances on land can lead to permanent abandonment of haulout sites (Gol'tsev 1968).

Use of coastal haulouts increased greatly in recent decades as the population recovered from depletion caused by overexploitation in the first half of this century. The first areas to be re-occupied in northern Bristol Bay were Round Island and Big Twin Island, where groups of walrus were seen hauled out in 1953 (Figure 1). Round Island rapidly developed into a major haulout site, being used by several thousand animals throughout the summer. In 1981 walrus began hauling out regularly and in large numbers at Cape Peirce. In the southeast Bering Sea, Round Island, North Twin Island, and Cape Peirce are the primary summer haulout areas while Port Moller and Cape Seniavin are also important in the spring and fall (Frost et al. 1983; LGL 1989). Figure 2 shows walrus haulout locations for Round, Twin, and High Islands, Capes Peirce and Newenham, and Security Cove. Other locations in Bristol Bay that have been used include Amak Island and Port Moller.

The peak number of walrus counted on Round Island has fluctuated over time. Numbers declined from about 15,000 in 1978 to about 6,000 in 1984 (Table 1). The decline was attributed to disturbance resulting from the developing Togiak herring fishery and from arriving and departing visitors. State regulations were made more restrictive in 1984 by increasing the controlled access area around Round Island from 0.5 to 2.0 miles; the numbers of walrus hauled out subsequently increased to a peak of 12,500 in 1986. The size of the controlled access zone was further increased to 3.0 miles in 1989. This is the maximum zone within which the State is allowed to limit access. The Federal Aviation Administration, at the request of the State, issued a notice of airspace restriction prohibiting overflights of less than 2,000 feet within one-half mile of Round Island. One reason for the aircraft restriction was to reduce disturbance associated with the herring fishery.

In 1987 daily counts and peak haulout counts on Round Island declined dramatically, and peak numbers never exceeded 5,300. Counts were even lower in 1988 with a maximum of 4,424. The only

obvious change in human activity in the area was a large fleet of vessels associated with the yellowfin sole fishery that appeared in the vicinity of Round Island for the first time in 1987, and returned in 1988. In 1989 the yellowfin sole fleet did not fish in the vicinity of Round Island and the peak count of walrus rebounded to 7,792. The peak count for 1990, when fishing was prohibited by National Marine Fisheries Service (NMFS) regulation, was 6,891 (Table 1).

At Cape Peirce (about 60 miles west of Round Island) the peak number of walrus hauling out increased to 12,548 in 1985. The peak count declined to 6,249 in 1987, increased to 6,938 in 1988 (when walrus numbers were low on Round Island), and then dropped considerably to 2,436 in 1989 and 1,474 in 1990 (when walrus numbers increased at Round Island). Some disturbance occurs at Cape Peirce haulouts due to subsistence hunting, aircraft, and boats. The frequency of disturbance is thought to have been relatively constant from year to year. Vessels associated with the yellowfin sole fishery have not been observed in the area.

The USFWS has been conducting studies of walrus distribution, abundance, and movements in Bristol Bay. Tagging of animals with satellite-linked transmitters has confirmed that Round Island and Cape Peirce, as well as Cape Seniavin on the Alaska Peninsula, are used by a single group of walrus that feeds and rests in the Bristol Bay area in the late spring and summer. It has been observed that the walrus using Round Island as a primary haulout have more site fidelity than those using Capes Peirce or Seniavin (Hills 1991, personal communication). A minimum total number of animals using the bay each year has been derived by correlating and summing daily counts from Cape Peirce and Round Island. The results suggest that the total number of walrus was relatively constant during 1987-1989 (8,551-8,952 animals counted), and dropped in 1990 (to 7,192). The recent changes in distribution can therefore be most readily explained as a shift in haulout use from Round Island to Cape Peirce in 1987 and 1988, followed by an increase in use of Round Island in 1989 and 1990.

Walrus numbers at Cape Pierce and Walrus Islands still, however, remain substantially below numbers recorded prior to 1987 (Table 1). If the decline between 1986 and 1987 was disturbance related, then perhaps a longer time period or a larger buffer zone may be required for the area's population to return to former levels. The lack of recovery may also be due, in part, to a general decline in the Bering Sea walrus population. Initial analysis of the 1990 Bering Sea walrus survey indicates that some decline may have occurred since 1985. Anecdotal reports from Soviet scientists and Eskimo hunters also indicate a decline may have occurred, particularly in adult male numbers (F. Fay, pers. comm.). Such a decline, if it has occurred, would provide an additional reason for protection of the north Bristol Bay walrus haul-out sites.

Ideally, any trend in numbers of walrus (adult males) seen at haulout sites should be viewed in the context of overall walrus population trends to be meaningful. A joint U.S./Soviet survey is conducted every five years to evaluate walrus numbers throughout their range. The results of the 1985 survey represent the latest confirmed figures. Since this survey occurred before the 1988 12-mile closures, the results are meaningless in the absence of confirmed numbers from the 1990 survey. Data from the 1990 survey is unconfirmed at this time, but it is expected that the estimates will be considerably lower than the 1985 survey, but still within the Optimum Sustainable Population range (Nichols, 1991, personal communication). Until the 1990 survey data is finalized, it is impossible to make any comparisons between haulout numbers and overall population numbers.

3.1.2 Walrus Islands Sanctuary

While a number of different haulouts in the Bristol Bay area are used by walrus not all haulouts have the same attributes. Amak Island was used by several hundred walrus in the 1960's but may be less suitable now due to rockslides. Walrus have used several haulouts in the Port Moller area, especially Deer Island. However, those haulouts are not currently used perhaps due to the large amount of vessel traffic in the area. Cape Seniavin is used by 1-2,000 walrus usually in April and May and again in the fall. This is a dangerous location for walrus to use in the summer when heat causes sloughing of the bluff and falling rocks have lead to walrus deaths. Cape Peirce has a limited amount of beach space for walrus. Also, a tidal flat has built up in recent years which walrus must cross to get to the beach. Cape Newenham has only a pocket beach and is not suitable for large numbers of animals. Security Cove has had some use but it is shallow, has extensive eelgrass beds, and generally does not resemble other walrus haulouts (Hills 1991, personal communication). Only the Walrus Islands group, especially Round Island, offer sufficient suitable haulout locations. In addition, Round Island and the other islands offer a number of beaches facing different directions so that walrus can haul out during stormy weather. It is not known how distance from the feeding grounds may affect walrus choices on haulouts. The Walrus Islands are the closest group to the area where walrus rest at sea. Whether such relative proximity is coincidental or necessary is unknown.

In 1960 the State of Alaska created the Walrus Islands State Game Sanctuary to protect habitat important to walrus and other wildlife. It includes a group of seven islands and the surrounding state waters. Round Island is the most regularly used walrus haulout site and has developed into a major site for scientific study, and commercial and public wildlife uses. Other marine mammals hauling out on islands in the Sanctuary include northern sea lions and harbor seals (LGL 1989). Access to Round Island is allowed only from May 1 through September 1, and requires a permit from the Alaska Department of Fish and Game (ADF&G). Two State field biologists are present on the islands during most of this period to supervise visitors and monitor marine mammals. In order to prevent disturbance to walrus, Sanctuary regulations limit total daily visitation, visitor activities, and access methods.

Annual Number of Visitor-Days at Round Island

1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
136	277	198	468	N/A	175	379	752	599	668	588

The Sanctuary provides a unique opportunity for viewing large numbers of walrus in a remote setting with minimal human interference. It is the only preserve of its type in the world and the most easily accessible site to see large numbers of walrus. Each year visitors from all over the world come to the Sanctuary to view the marine mammals, birds, and scenery. Many return home to write travel articles, stories and publish pictures of the walrus and islands. Each year these appear in magazines, calendars, and papers all over the world and have been enjoyed by tens of millions of people. As an example, a feature article in Backpacker Magazine (Lay 1989) emphasized the quietness of Round Island and the wilderness aspects. The article increased public awareness of the Sanctuary and was commented on by several visitors in 1990 (Hessing 1991, personal communication). In 1990 three commercial media crews visited Round Island, two from television and one audio crew, and three commercial tour groups booked visitors there. About 15% of all camping visitors in 1990 were professional photographers (ADF&G 1991).

As with many resources, most of the social value of walrus may be composed of non-consumptive use value and existence or option value. An example of non-consumptive use value is the value people obtain from watching walrus in their natural habitat. An example of existence value is simply knowing that such a place exists. The fact that legislation, such as the Marine Mammal Protection Act, forbids or severely restricts most commercial uses of marine mammals indicates that our society values the existence and non-consumptive uses more than the commercial value of the animals. The Act also shows that our society places a very high value on marine mammals in particular, enough to the extent that any non-permitted activity which even disturbs marine mammals is considered taking of the animals and treated as if the animals were killed.

3.1.3 Yellowfin sole

Yellowfin sole are the second most abundant commercial groundfish species in the eastern Bering Sea. Harvests increased from 59,000 mt in 1977 to 227,000 mt in 1985 (Table 2). Since that time they have decreased to 86,000 in 1990 due to phasing out first the foreign and then the joint venture fishing operations. The stocks are healthy and at high abundance levels (NPFMC 1990).

Prior to 1987 most yellowfin sole fishing occurred outside of northern Bristol Bay. In 1987 a NMFS regulation established a seasonal closure of the groundfish fishery south of 58° once quotas set for bycatch of crab and halibut were reached. In 1987, and again in 1988, vessels began fishing in northern Bristol Bay shortly after the bycatch closure was implemented (Table 3). As shown in Figures 3 and 4, fishing in northern Bristol Bay usually began in April and continued until the yellowfin sole quota was reached (June - July). On March 1, 1989 NMFS closed the Bering Sea joint venture fishery and reopened it in early September. Fishing effort in the later part of the year was to the north of where it had been in the early spring (Figures 5 and 6). In 1990 the joint venture fishery was closed in the beginning of March due to bycatch limits and reopened for just one week in June. Observer data, especially on the domestic fleet, is not yet available for 1990 (Narita 1991, personal communication). Beginning in 1991 the directed fishery for yellowfin sole, included in the "other flatfish category", will not begin until May 1. The predominant fishing activity in northern Bristol Bay has been joint ventures (domestic harvesting vessels delivering to foreign processing vessels). Beginning in 1991 there are no joint venture allocations and all harvesting and processing is by U. S. vessels and shoreplants.

The preferred fishing area in northern Bristol Bay is to the west of the Nushagak Peninsula north of Cape Constantine (Figure 1). Fishing occurs in very shallow waters, from the beach to some distance offshore. Some of the past fishing activity was centered in the Togiak herring grounds very close to shore (Funk 1991). Yellowfin sole concentrate there and trawlers fill the shallow water column with nets. There was very little observed herring bycatch during this fishery even though herring were present in large numbers (Funk 1991, personal communication).

Observer sampling has indicated that trawl catches from Northern Bristol Bay are composed of 95-99% yellowfin sole. The prohibited species bycatch (PSC) of salmon, halibut, Tanner crab, and king crab from this area and the Bering Sea are presented in Table 4. Within northern Bristol Bay during the period 1987-88, the number of PSC individuals caught per metric ton was usually greater when closer to the Sanctuary while the average weight of the individuals was usually less. The PSC catch

rate in the remainder of the Bering Sea was always higher, often by an order of magnitude, while the average weight per individual was sometimes less.

During 1987 and 1988, the vessels targeting on yellowfin sole in northern Bristol Bay were domestic harvesting vessels (typically less than 125') and large foreign processors. In 1987 about 75 vessels (catcher boats 85-120 feet long and processors 300-600 feet long) operated in the area. In 1988 more vessels were there with as many as 180 visible from Round Island at one time (Hessing 1991, personal communication). No trawl or processing vessels have been observed near Cape Peirce by onshore observers. However, in 1987 a great amount of fishing effort occurred in the lower Kuskokwim Bay west of Cape Peirce (Figure 3). In 1988 there was no significant effort focused in Kuskokwim Bay but instead concentrated off the Nushagak Peninsula (Figure 4). In 1989 the domestic yellowfin sole fleet did not carry observers but is not believed to have operated in the vicinity of Round Island. In 1990 during the short joint venture fishery in the area some effort occurred just outside the 12 mile buffer zone. During this fishery two processing vessels collided and one sunk approximately 14 miles from Round Island (Sheffield 1990). No reports are available for domestic activity in 1990 nor are data available for the joint venture fishery (Narita 1991, personal communication). Should the domestic fleet targeting on yellowfin sole increase in size it will probably include a number of factory trawlers ranging from 150' to 350' or more. Since these large vessels will be both processing and fishing, and their propeller will be under a heavier load, their noise emissions will be greater than the foreign processors (Thiele et al. 1990).

Although there is a three mile State buffer around Round Island which requires a permit to enter, it is not always honored. During the 1990 yellowfin sole fishery two vessels, one a trawler and one a tender, on separate occasions came within one-half mile of the Island. During the salvage operation on the sunken processor two other vessels approached the island and one came up almost to the primary haulout beach. These three disturbances were all related to the yellowfin sole fishery and they comprise about 15% of the vessel disturbances that year. One resulted in enough disturbance that 50 walrus moved into the water and did not return for at least several hours (ADF&G 1991).

3.1.4 Acoustic environment

Fishing trawlers and other vessels project sound both in air and underwater. Studies of sound examine two components: the level (frequency, measured in Hz) and the intensity (measured in dB). In order to make valid comparisons between sources, measurements are taken in a standardized manner. Thus, the measurements reported here were taken at 1 m from the source and with equipment of a standardized sensitivity.

Most underwater sounds associated with fishing vessels are generated from propeller cavitation and occur at relatively low frequencies (40 Hz-4 kHz). Measurements of a medium-sized trawler showed sound source levels of 169 dB when transiting (at 10 knots) and 157 dB when trawling (at 5 knots) (Urick 1983). Generally speaking, small to medium sized ships operating at full power produce sound levels of 165-175 dB (Malme et al. 1989). These values are comparable to the sound intensity of a Boeing 737 jet at takeoff (185 dB) and at cruise (161 dB). Figure 7 portrays the frequency and intensity of sound emissions for several types of vessels. The fleet expected to be associated with harvesting and processing yellowfin sole consists of a variety of medium and large sized vessels (80'

to over 300'). The aggregate noise level that could be produced by a fishing fleet was considered by Malme et al. (1989). The report states, "if 3 to 6 vessels are operating in close proximity, a 10 to 15 dB increase in local noise level over that expected for a single trawler is possible....this would increase the received levels in the immediate vicinity of the concentrated fishing activity to values found near drillships and dredges." The power load placed on a propeller also makes a difference in the intensity of the sound. At a higher propeller load the noise has a higher dB level at all frequencies.

It is important to note that while sounds traveling in air may attenuate (the dB level may weaken) greatly as distance from the source increases, sounds traveling in water do not attenuate as rapidly; in fact, depending on the frequency and several hydrographic factors, sounds propagated underwater may travel about four times faster (and therefore farther) than those traveling through air. Sounds less than 200 Hz attenuate more rapidly than those of higher frequency. In general, lower frequency sounds (such as those generated by propeller cavitation) travel much farther than higher frequency sounds. Airborne sounds associated with fishing activities have not been studied, but they would result from a variety of sources (engines, generators, hydraulic systems, deck activities, etc.) and probably cover a wide frequency range. These same activities cause vibrations in hulls and become another source of underwater noise.

There is no quantitative information on the hearing ability of walrus since audiograms have never been done (Davis et al. 1990). An audiogram of Pacific walrus is currently in progress in the Netherlands (Hills 1991, personal communication). It is well known that walrus use a complex array of vocalizations both in air and underwater. Vocalizations include snorts, chattering caused by teeth clacking, whistles, and bell-like or gonging sounds. It is suspected that the gonging sounds are made by bulls signaling each other (Seagars 1989). The sounds function in communication and provide important social and behavioral signals. It is suspected that bulls warn off other bulls with certain vocalizations and at other times call each other together, perhaps for activities such as hauling out (Seagars 1989). Underwater studies off Round Island indicate that walrus vocalizations raise calm water ambient sounds 11 dB (USFWS 1991). Most calls occur within a frequency range of 50 Hz to 4 kHz. It is reasonable to assume that walrus hearing is sensitive to sounds occurring within the frequency range of their calls. No studies have been conducted to test the response or perception of walrus to industrial/fishing generated sounds.

Other phocids (harbor, ringed and harp seals) are sensitive to underwater sounds in the 1 or 2 to 50 kHz range (Figure 8, Davis et al. 1990). Sensitivity below 760 Hz has not been tested in these other phocids. For those species of pinnipeds that have been studied (e.g., fur seals and harbor seals), 1,000 Hz sounds are detected when they exceed ambient noise by about 25 dB (Malme et al. 1989). Shallow water ambient noise levels are strongly dependent on sea state. A study conducted by USFWS in 1989 found the underwater ambient noise level at Round Island in to be 69-73 dB during calm conditions, increasing to 80-86 dB with moderate winds and waves. Underwater sounds produced by vessels are within the frequency range of submerged sounds produced by walrus. It is therefore virtually certain that walrus perceive noise from the fishing fleet over a large area, even in windy weather. Because these sounds are within the same frequency used by walrus it is possible that loud intense vessel noise could mask the calls of walrus and inhibit signaling between walrus at sea and those near the shore preparing to haulout.

3.1.5 Underwater environment

Sounds produced by the fishery may impact walrus in two ways. Airborne sounds, which can be clearly heard by people on Round Island, may influence the behavior of animals hauled out on the beaches. Fewer walrus may choose to haul out, and those that do may remain ashore for shorter periods of time. Also, walrus may encounter intense and unusual underwater and airborne sounds produced by fishing activity as they approach Round Island from sea. They may choose to avoid this strongly ensonified area and swim to haulouts elsewhere or spend long, perhaps energetically expensive, periods at sea. Brueggeman et al. (1990) conducted a study to examine the impact of oil and gas exploratory activities on walrus in the Chukchi Sea pack ice. They stated that, "During icebreaking activities, animals moved 20-25 km (11-13 nmi) from the operations, where noise levels from the ship were 11-19% above ambient. This relationship suggests that the animals were displaced by icebreaking activity to areas where noise levels approached ambient levels."

Descriptions of human induced disturbances to different species of marine mammals including walrus have been published (LGL 1989 and 1991; Davis et al. 1990). Observations from Round Island indicate that walrus seem to be more sensitive to diesels than outboards. A high speed outboard motor running one-quarter mile off a haulout beach did not seem to bother walrus but a slow moving diesel vessel somewhat further out frightened walrus off the same beach (Hessing 1991, personal communication).

Studies conducted on various marine mammal haulouts in the Bering Sea, with its relatively shallow waters, suggest that bottom type plays an important role in sound attenuation (LGL 1989). A sandy/gravel base beneath silt reduces intensity less than a basalt base. Cape Peirce, one of the sites in the LGL study, has such a sandy/gravel base although nearby rock outcroppings may lead to greater sound attenuation. In general, rocky bottomed areas attenuate sounds emanating from distances greater than six kilometers better than do softer bottoms, although the reverse is true of sounds emanating from within three kilometers (Johnson 1991, personal communication).

Underwater acoustic recordings on Round Island in 1990 had to be stopped at one point due to noise interference from a passing vessel. The vessel was transiting from the direction of Cape Constantine to Togiak at about seven miles distance. Even at this distance the noise was so loud that it rendered recordings of walrus vocalizations unusable (Hills 1991, personal communication).

It has been suggested by several scientists that "sound channels" might exist in the vicinity of Round Island. These would be places where the bottom topography would amplify sounds. Whether this amplification would be of walrus vocalizations (beneficial for communication) or vessel noises (disruptive to walrus behavior) or both is at question. One such possible channel in the vicinity of Round Island is a canyon between the Sanctuary and the Nushagak Peninsula.

A related concern is the possible effect of onbottom trawling on benthic communities and walrus food supply. Pacific walrus consume mostly benthic invertebrates, particularly clams. Large groups of walrus such as occur in Bristol Bay require abundant food resources. The effects of groundfish fisheries on walrus food availability both through physical impacts on animals and substrates and through changes in the structure of biological communities caused by harvesting of certain species are unknown.

3.2. The Alternatives

The issue of protecting walrus haulouts by means of time and/or area closures was first developed by the Council in 1989. At that time buffer zones of three, six, and 12 miles were evaluated for various Pacific walrus haulouts in the Bering Sea area, including Cape Newenham, Cape Peirce, the Walrus Islands Sanctuary, Cape Constantine, Hagemeister Island, and Cape Seniavin on the Alaska Peninsula (NPFMC 1989). Possible effects of the groundfish trawl fishery on other components of the walrus ecosystem were considered also, especially effects of bottom trawling on walrus feeding grounds. The issue of feeding grounds interference is of considerable concern; however, since no quantitative data were available to support analyses of this issue, it was not developed further. Based upon low frequency sound transmission characteristics and haulout patterns only three alternatives to the status quo were developed in 1989. These were: the development of a cooperative program involving all concerned parties, a 12-mile radius buffer zone around specific walrus haulout sites with seasonal closures, and a seasonal closure north of a line from Cape Constantine to the southernmost tangent of a 12-mile radius around Cape Peirce. The Council chose the 12-mile radius buffer zones with the provision that the amendment sunset in two years. During Council discussions it was made clear that the buffer zone and the area closure would be analyzed in 1991.

Thus, three alternatives are developed in the following sections: (1) allowing the protective measures to expire, (2) maintaining the 12-mile buffer zone with seasonal closures at three important walrus haulout locations, and (3) a time/area closed zone in northern Bristol Bay. These closures would only restrict groundfish fishing. As defined by the Magnuson Fishery Conservation and Management Act (16 USC 1854 *et seq.*) fishing means, in addition to catching, taking, or harvesting of fish, any activity which attempts to do so, any other activity which can reasonably be expected to result in the former, and any operations at sea in support of, or in preparation for, any activity as listed above.

Possible cause and effect relationships exist between fishing activity and walrus haulout patterns. Suggested studies of walrus to address this issue include: monitoring haulout patterns and abundance at all of the major Bristol Bay haulout sites; tagging and tracking to determine movements and commonly used habitats; and, studies to characterize the acoustic environment and the effects of sound on walruses (MMC 1991). These types of studies have been conducted in the past by the U.S. Fish and Wildlife Service which has received cooperation from the Alaska Department of Fish and Game.

3.2.1 Alternative 1: No action - protective measures expire.

Under this alternative the buffer zone amendment would sunset on December 31, 1991. A 3-mile buffer zone would still exist in State waters around the Walrus Island Sanctuary but not at Cape Peirce. Fishing for groundfish, particularly yellowfin sole, would continue to be governed by other regulations already in place. The domestic fishery has replaced the joint venture fishery. The domestic fleet is expected to increase with factory trawl vessels dominating. However, the overall number of vessels participating would probably decrease because fewer motherships with associated catcher fleets exist. The fishery will not begin until May 1 so activity will begin in the vicinity of northern Bristol Bay rather than move there from other yellowfin sole grounds and the fishery would not be closed before that time due to bycatch limits.

3.2.2 Alternative 2: Establish 12-mile radius buffer zones with seasonal groundfish fishery closures around three walrus haulout sites.

This alternative would continue to close waters within 12 miles of Round Island, The Twins, and Cape Peirce to groundfish fishing activities (Figure 9). The buffer zones would extend nine miles seaward from the State's three-mile limit, where present. A 12-mile buffer would be consistent with the level of protection provided for walrus haulout sites in the Soviet Union, the only other country that shares the Pacific walrus population. A seasonal groundfish fishing closure would be imposed from April 1 through September 30; this corresponds to the period of peak walrus utilization. Fishing would be permitted from October 1 through March 31 inside these zones, although sea ice conditions may prevent vessels from fishing during much of this time period. This alternative would provide a moderate level of protection to walruses because some fishing activity will likely occur relatively close to haulouts but outside the buffer zones during the April 1 - September 30 period.

An option to this alternative would be to sunset the buffer zones after five years, (on December 31, 1996). An evaluation of the buffer zones addressing fishery effects to walruses would be completed prior to the sunset date. This evaluation would present additional information to attempt to evaluate whether or not action was effective, if it should be extended, or if additional corrective measures need to be taken.

This is the alternative the Council adopted in 1989 except with a five year sunset compared to two years. The Council noted the strong correlation between the decrease in walruses hauled out on Round Island, and the activity of the yellowfin sole fishery during 1987 and 1988. It also noted the lack of evidence establishing a clear relationship between those two factors. The Council took into consideration (1) that the U.S. Fish and Wildlife Service, in cooperation with the Alaska Department of Fish and Game, was conducting preliminary acoustical studies at Round Island and at Cape Peirce during the summer of 1989 in order to provide more information on the methodology that might be used to assess levels of acoustical disturbance caused by vessels of various types and (2) that groundfish fishing in northern Bristol Bay was expected to be at much lower levels in 1989 and 1990 due to the decline of joint venture fisheries for yellowfin sole. Consequently, the Council felt this alternative, with a two-year sunset provision, provided additional protection for walruses in this region while also affording it the opportunity to revisit the issue at this time with additional information.

3.2.3 Alternative 3: Seasonal groundfish fishing closure north of a line from Cape Constantine to the southernmost tangent of a 12-mile radius around Cape Peirce.

This alternative would close a larger area north of a line drawn from Cape Constantine to the southernmost tangent of a 12-mile radius centered at Cape Peirce (Figure 10). A seasonal groundfish fishing closure would be imposed from April 1 through September 30; this corresponds to the period of peak walrus utilization. Fishing would be permitted from October 1 through March 31, although sea ice may prevent fishing during much of this period. Fishing also may occur during April through September outside the limits of the closure zone. This alternative would provide a high level of protection to walruses that transit and haul out in northern Bristol Bay by moving the source of potential disturbance to the south of the important resting areas.

An option to this alternative would be to sunset the closure after five years. An evaluation of the closure addressing fishery effects on walrus would be completed prior to the sunset date. This evaluation would present additional information to attempt to evaluate whether or not the action was effective, if it should be extended, or if additional corrective measures need to be taken.

3.3 Impacts of the Alternatives

The likely impacts of the three alternatives are examined in the following section. There are three parts to the analysis--environmental impacts, fishery impacts, and socioeconomic impacts.

Potential adverse effects on walrus from herring and salmon fisheries were considered in the process of developing this proposal. Most of the vessels fishing for these species are small and do not produce the intensity of sound generated by the much larger groundfish trawlers and factory vessels. These smaller vessels are restricted from fishing within three miles of Round Island and little effort is expended in the immediate vicinity of Cape Peirce. Some direct disturbance to walrus was reported in the past at Cape Peirce and at Round Island as a result of approaches by sight-seeing herring or salmon crews during periods when the fisheries were closed (Hessing 1991, Hills 1991, personal communication). Walrus respond to these disturbances by moving off or staying away from preferred hauling areas. Such direct disturbances could be considered an illegal taking under the Marine Mammal Protection Act and can be regulated through the legal process (NPFMC 1989). Additional measures to protect walrus specific to other fisheries may be proposed to other management bodies in the future. A review of the salmon and herring fisheries in northern Bristol Bay is included as Appendix I.

The principal fishery in the proposed groundfish fishing closure area is for yellowfin sole. Little information is presently available to evaluate the impact of the three alternatives on the Bering Sea yellowfin sole stock. The enactment of either of the closure alternatives would reduce the population removals in an area characterized by shallow waters where large, almost pure catches of yellowfin sole are obtained. Reports from observer sampling of the fishery in the Togiak Bay area indicate the dense aggregations of yellowfin sole are in spawning condition. What effect fishing has on this spawning stock is unknown, particularly in light of the widespread distribution of yellowfin sole throughout the Bering Sea shelf and their present high abundance level.

In 1988 the first estimation of the abundance of yellowfin sole (and other groundfish resources) in the area between Capes Constantine and Peirce was attempted as a part of the annual Bering Sea resource assessment trawl survey. Sampling density was sparse on this first survey and the resulting catches were small to moderate. Sampling occurred just at the completion of the yellowfin sole fishery (early July), at a time when 60,000 mt of fish were recently caught. Biomass estimates are unavailable at this time to discern what portion of the total Bering Sea resource actually inhabits this area. Immigration, emigration, and residence time of yellowfin sole are also unknown for this area.

Given that the cause-and-effect relationship has not been firmly established between the presence of fishing vessels and the decline in the number of walrus hauled out on Round Island or the absence of vessels and the subsequent increase in walrus hauled out, it is not possible to quantify some of the factors relating to buffer zones and fishing closures. However, some qualitative analysis can be conducted on the value of long-term conservation of walrus in the face of uncertainty and

of the value of the Sanctuary as a unique recreational site. In addition, some of the costs that would be imposed under the various alternatives can be quantified in the extreme.

One means of comparing each alternative would be to compare the different impacts that could be expected. These impacts would include changes in: walrus haulout patterns, movements, health, and population size; the amount of yellowfin sole that would be harvested in northern Bristol Bay that could not be harvested elsewhere, the cost (and profit) between harvesting there and elsewhere, bycatch of other groundfish species and prohibited species, prohibited species bycatch and associated fishery season length, the overall amount of groundfish that might be harvested; and, the number of visitors to Walrus Islands and other walrus haulout areas, visitor expenditures, emotional satisfaction visitors would experience, and perception and emotional satisfaction the general public would experience.

3.3.1 Alternative 1: No action - protective measures expire.

Allowing the measures to expire, while technically the status quo, will result in a change from the past three years. There has been no groundfish activity proximate to the Walrus Islands and a greatly reduced level in northern Bristol Bay since 1988 due to the buffer zones and a variety of other reasons mentioned elsewhere in this document. Therefore, not renewing buffer zones with a seasonal closure will result in an increase in fishing activity and associated noise around the Walrus Islands.

Environmental

The presence of the fleet in northern Bristol Bay will bring the potential for increased fishery-related disturbance of walrus. If the decline in haulouts during 1987 and 1988 (Table 1) was related to fishery activity then a similar decrease would be expected again depending on fleet size and walrus tolerance. It is likely that the airborne and waterborne noise associated with the fishing activities of this alternative could continue to disturb walrus both in the water and hauled out onshore. The type of vessel operating in the fishery will change because of the change from joint ventures to domestic processing.

The effects of the reported disturbances to walrus are uncertain. If disturbance results in a redistribution of walrus on haulout sites within northern Bristol Bay or elsewhere to areas farther away, minor to major physiological impacts to individuals could result. If disturbance causes walrus to spend longer periods of time at sea or discourages them from hauling out entirely, individuals would be subjected to the higher energetic requirements associated with at-sea thermoregulation, behavioral stress, or interference with molting processes, resting, and physiological maintenance. It is possible that weakened and injured walrus would not be able to obtain needed rest in the spring. This might lead to higher mortality rates and a decrease in the walrus population. Thus, a significant portion of the regional walrus population could incur physiological impacts with probable, but unknown, population level effects. This could lead to adverse impacts on human use and the subsistence economy of Alaskan natives.

It is possible, although not probable, that a redistribution of walrus to haulout sites outside of northern Bristol Bay would result in beneficial effects on walrus. Walrus might move to formerly-used sites not now occupied or fully utilized. However, the areas suitable for hauling out by walrus

are extremely limited and probably could not accommodate large numbers of animals. Reoccupation of formerly used sites might result in discovery and redistribution of walrus feeding locations. If walruses were able to obtain adequate prey in these new areas, the food resources of current feeding areas in central Bristol Bay would not be subjected to current levels of grazing. However, it is considered highly unlikely that adequate food resources are available close to other sites because of the different bathymetry and oceanographic conditions of waters surrounding such sites. If walruses had to travel from other, more remote areas back to central Bristol Bay to feed, they would incur additional physiological costs likely resulting in adverse population effects.

Fishery impacts

In 1987-88 northern Bristol Bay was the preferred fishing grounds for yellowfin sole during the early summer, the same time as walruses are hauling out. As Figures 3 and 4 show, a large number of trawls for yellowfin sole were made in this area during May and June of 1987 and 1988 with most of the fleet moving west into Bering Sea waters in July and August. Comparable data for 1989 and 1990 are not available as discussed above.

For the combined harvests of 1986-88 (the three years for which data exists on yellowfin sole fishing inside Bristol Bay), 28% of the observed joint venture harvest of 50,509 mt occurred within this proposed 12-mile closure during the months of April-June. If it is assumed that the JVP observer coverage provides a representative sampling of fishing patterns and if this seasonal closure had been in effect over the period 1986-1988 and the fleet had not modified its behavior to increase its catch of yellowfin sole in other area, then the foregone catch and gross revenue to the fleet from this closure would have been:

<u>Year</u>	<u>Foregone Catch (metric tons)</u>	<u>Exvessel Price¹ (dollars/mt)</u>	<u>Foregone Revenue (millions \$)</u>
1986	788	134	0.1
1987	11,393	145	1.7
1988 ²	23,740	165	3.9

¹Annual average prices as reported by Pat Peacock, NMFS, Alaska Region, Juneau, 2/89.

²1988 catch figures are preliminary.

At the 1988 peak, about 24,000 mt of yellowfin sole, worth \$4 million at the exvessel level, were taken in the 12-mile buffer zone. In future years this value will increase to the wholesale level due to domestic processing. This is the maximum benefit to be expected from reopening the area but is overstated for several reasons. The first is that much if not all of this yellowfin sole catch could be taken outside of the buffer zone and so would not be an increased benefit. The second is that revenues cover operating expenses that would not have accrued if fishing did not take place. Therefore the actual increase in benefits would be less than \$4+ million. It is more likely that all of this amount of yellowfin sole would have been harvested elsewhere, possibly even within northern Bristol Bay. The increased benefit (or cost) is therefore the difference in overall profit between the two areas. As shown in Table 5 the catch per unit effort (CPUE) is actually greater outside of this 12-mile buffer. If travel and operating costs were the same in and outside the area then there might even be a potential monetary cost to the fleet if the area is opened and used.

Bycatch rates for PSC become lower as fishing moves away from Round and The Twins Islands (Table 4). This is true for an area six miles from the islands, from 6 to 12 miles from the islands, and from there to northern Bristol Bay as a whole. Possibly this is due to slightly different bottom topography associated with the islands. Therefore, fishing within the twelve mile zone is expected to result in increased PSC catch and, if PSC limits groundfish fishing, an earlier closure with lower overall harvests.

Another factor is the difference in bycatch of other groundfish species between the buffer zone and other areas. To the extent that harvests are made in northern Bristol Bay it does not seem that these bycatch rates would be dramatically different from those in the buffer zone. To the extent that this is true, the buffer zone does not create a benefit to the fleet.

There would be no new direct costs imposed on the fleet by allowing the protective measures to expire. In 1991 the yellowfin sole fishing season is scheduled to begin May 1. The number of vessels expected in this fishery is unknown. The domestic harvest of yellowfin sole has been very low in the past (Table 2). However, as pollock and cod seasons shorten and as other fishing opportunities are diminished more vessels and a larger harvest are expected in this fishery.

Socioeconomic impacts

If the number of walrus haulouts within the Sanctuary is affected by an increase in vessel traffic and continues to decline, then there could be a reduction in the value/appeal of Round Island as a site for the public to view walrus haulouts and conduct research and the number of visitors would be expected to decrease. Visitors could still choose the area in order to view seabirds, other marine mammals, or to engage in other recreational activities such as camping. It is assumed, however, that the main purpose of any visit is to view or study the walrus haulouts. Visitors in the past have commented negatively on the numbers of fishing vessels in the vicinity and the associated noise. They also stated that this was a negative aspect of their visit (Hessing 1991, personal communication). A reduction in the number of visitors will mean fewer dollars will be spent in local communities such as Dillingham and Togiak. Visitors' expenditures on food, lodging, and transportation had a direct impact on the tourism economy and an indirect impact on the overall economy of Alaska. No studies on this aspect of the Walrus Islands have been conducted.

The continued presence of fishing activity and noise reaching Round Island would decrease the feeling of remoteness for visitors to the Island and, if fishing moved westward, at Cape Peirce. If disturbance were affecting walrus haulout behavior, this would negatively impact the visitor's experience by decreasing the number of walrus haulouts on shore. Abandonment of the haulout sites is a possibility. These effects could have a major impact on visitor use of the Sanctuary and the Refuge, and the ability of the public to view walrus haulouts. There are no other areas in the U. S. where facilities allow visitors to go and observe walrus haulouts on coastal haulouts. Such an effect would have a fiscal impact on the Alaskan visitor industry, especially in Anchorage, Dillingham, and Togiak. The knowledge of such a reduction in walrus hauling out would also affect the perceptions of those people worldwide who are aware of the islands and take pleasure in that knowledge.

Allowing the buffer zones to expire would place the United States in the position of being much less restrictive concerning walrus haulouts than the Soviet Union. It is possible that world and national opinion might lead to reconsideration of this decision by forcing protective measures through another federal agency or through Congress.

3.3.2 Alternative 2: Establish permanent 12-mile radius buffer zones with seasonal groundfish fishery closures around three walrus haulout sites. An option would be to extend the closure for five years and continue studies on walrus/fishery interactions.

This alternative is arguably the status quo and would continue the regulatory measures already in place. Since no groundfish fishing operations have been allowed inside of the 12-mile radius since 1990, and few if any wholly domestic operations used it before then, fishermen will not suffer losses. The current level of protection offered the walruses would continue. Increased noise and fishing activity would still occur outside of the buffer zone as the fleet increases in size and would continue to interfere with walrus movements and behavior to that extent.

Environmental impacts

This alternative would provide a moderate level of protection for walruses by maintaining a disturbance buffer from commercial groundfish fisheries. The alternative maintains a 12-mile buffer zone with seasonal fishing closure around the three major walrus haulout sites in northern Bristol Bay. Increasing the distance between fishing vessels and walrus haulout sites is predicted to reduce through attenuation the amount of vessel-related waterborne sound reaching these locations. The degree of attenuation is dependent on numerous variables (physical properties of air and water such as wind and current speed, salinity, thermoclines, initial sound intensity, etc.) and cannot be predicted accurately. It is assumed that a 12-mile buffer zone would adequately reduce sound intensity to a level acceptable to walruses at least on and near haulout sites. The possibility still remains that walruses may encounter unacceptably high levels of noise from the fishery when approaching haulout sites from sea.

The 12-mile buffer would be consistent with the level of protection provided for walrus haulouts in the Soviet Union, the only other country which shares the Pacific walrus population. The establishment of the seasonal closure would affirm the U.S. commitment to the protection of marine mammals, as specified in the Marine Mammal Protection Act, and could generate some side benefits in future negotiations with other countries on the protection of other marine resources.

Groundfish fishing has not been observed from shore at Cape Peirce to date, although considerable yellowfin sole trawling has occurred offshore in adjacent Kuskokwim Bay. Protection for Cape Peirce is proposed because if restrictions were applied only to the Walrus Islands Sanctuary area, it is likely that fishing effort (and therefore acoustic disturbance) would increase adjacent to Cape Peirce.

As walruses approach northern Bristol Bay, they would encounter zones where fishing sounds were intense and concentrated and other areas where sounds were not as intense. The buffers proposed by this alternative would result in certain underwater areas having lower levels of fishery-related sounds; these would be larger than those that would occur with no buffer zone and a distribution of fishing effort close to the walrus haulouts. This would likely produce less disturbance to walrus moving through the region as they approach haulout sites and could maintain current numbers of walrus hauling out.

Fishery impacts

The current regulations prohibit groundfish fishing (and support operations) within twelve miles of Cape Peirce, Round Island, and The Twins. The other fishery activities which have occurred in those waters are tendering, processing, and other fishery support activities. All of these activities have been prohibited or greatly reduced during the past three years. Since continuation of the buffer zone

would not change industry activities from their present pattern and would impose no new constraints restricting current activities, the industry would not have costs imposed on it by continuation of these regulations. What the industry would lose is the opportunity to fish in those waters should they so desire. The CPUE estimates in 1986-88 were actually higher outside the buffer zone than in. All else equal, this would suggest that fishing costs are less outside the buffer area than inside it. Similarly, PSC catches are greater inside the zone than out.

Some fishing activities are likely to continue during April through September relatively close to walrus haulouts but outside the closure zones (in particular over the canyon between Round Island and the Nushagak Peninsula). Enforcement of the restriction on fishing the 12-mile zones would be complex because of their circular configuration. Fishing and enforcement vessels would have to monitor positions closely through radar or other means on a frequent basis. Vessels fishing in northern Bristol Bay may be tempted to "fish the curves" around each of the haulout sites in order to maximize the fishing area. This would result in point source sound propagation from locations immediately adjacent to the 12-mile closures. Activities during 1990 were not sufficient to tell whether this activity will occur in large numbers. However, the sinking of the foreign processor near the buffer zone suggests that it will.

In 1987 a large number of trawlers in the yellowfin sole fleet fished in the Kuskokwim Bay area west of Cape Peirce during the month of June (Figure 3). This is also a potential alternative harvesting area, which could help to offset any revenue lost from the 12-mile closure, if the fleet can successfully shift fishing to this area.

If the 12-mile protection is sufficient to maintain site fidelity for the walruses, and if their recent decline is attributable to disturbance caused by the yellowfin sole fishery within 12 miles, then the number of observed walruses could remain level or increase in future years. However, if the additive impacts of fleet encounters with walruses outside the Sanctuary (on the feeding grounds and enroute) are sufficient to disrupt the return of the walruses to the haulouts, or if there is no relationship between groundfish fishing activity and haulout declines, then there may be fewer benefits under this closure.

Socioeconomic impacts

Maintaining the 12-mile buffer zone would provide moderate assurance that the number of walrus hauling out would not decrease. It would also reduce airborne noise which disturbs visitors. Given this, visitors would continue to enjoy the walruses and serenity of the Sanctuary. If walrus numbers decrease due to at-sea impacts as mentioned above, then visitor enjoyment will decrease as will the public's perception of the Sanctuary.

Option of sunseting the restrictions in five years

The costs and benefits described above would still exist if the restrictions were only put in place for five years. Five years is an adequate planning horizon for scientific studies since it allows time for proper funding, planning, staffing, and follow up. Most important, it is of minimal length to allow a time series of data to be collected.

The added benefits and costs are determined by whether or not the buffer is the proper size. If it is not the proper size, this option guarantees the Council will take the time to redress it. If it is the proper size then this option results in a less than optimal use of future Council and agency time.

- 3.3.3 Alternative 3: Establish a seasonal groundfish fishing closure north of a line from Cape Constantine to the southernmost tangent of a 12-mile radius around Cape Peirce. An option would be to institute the closure for only five years and continue studies on walrus/fishery interactions.

Environmental impacts

This alternative would provide a high degree of protection to walrus frequenting northern Bristol Bay haulout sites. By closing most of northern Bristol Bay to groundfish fishing from April 1 through September 30, the amount of airborne sound reaching haulout sites and the size of subsurface area ensonified would be reduced greatly. While the present buffer zone has coincided with an increase in the numbers of walrus hauling out since 1988, the number of walrus at haulout sites has not recovered to historic highs. This alternative would allow an evaluation of whether a larger buffer zone is necessary. Once walrus entered the northern portion of the Bay to approach traditional haulout sites, the intensity of sound would begin to attenuate.

By restricting groundfish fishing activities to a well defined, easily enforceable line, vessels would not be likely to approach haulout sites accidentally. Eliminating fishing activities from the previously heavily fished canyon area between Round Island and the Nushagak Peninsula would reduce the chance that fishery generated sounds would create an acoustic barrier to walrus moving toward Round Island or Cape Peirce from feeding areas in central Bristol Bay. Absence of fishing in this area would also mean processors and other fishery related activity likely would be located south of the closure line as well; reducing the chances that vessels would even enter the closure area to unload their catch. "Fishing the line" would result in the production of point source sounds spread out over a reasonably large area and emanating from locations more distant from important walrus haulouts. All of this would be beneficial to the walrus.

Fishery impacts

Since the principal groundfish fishery in this area is for yellowfin sole, this trawl fishery would be the major fishing category affected by the closure. Given that a significant portion of the yellowfin sole fishery has occurred in northern Bristol Bay in past years, this area will probably remain good trawling grounds for the yellowfin sole fleet.

By closing this area and forcing relocation of the fishing fleet, costs will be imposed in the form of increased travel time to new areas (i.e., fuel costs, opportunity costs such as lost fishing time) and perhaps reduced fishing opportunities if the substitute grounds have lower CPUEs.

If this seasonal closure had been in effect over the period 1986-1988 and the yellowfin sole fishing fleet had not modified its behavior to increase its catch of yellowfin sole in other areas, then the foregone catch and gross revenue to the fleet from this closure would have been:

<u>Year</u>	<u>Foregone Catch (metric tons)</u>	<u>Exvessel Price¹ (dollars/mt)</u>	<u>Foregone Revenue (millions \$)</u>
1986	2,813	134	0.4
1987	4,689	145	5.9
1988 ²	84,785	165	14.0

¹Annual average prices as reported by Pat Peacock, NMFS, Alaska Region, Juneau, 2/89.

²1988 catch data are preliminary estimates based on observer data available as of 2/13/89.

Assuming that this fishery with its relatively high CPUEs and low bycatch remains attractive to the fleet then foregone catch in 1988 would have been 85,000 mt and lost gross exvessel revenues would have been \$14 million. Since domestic processors will operate in the future the potential loss in gross revenues would be quite a bit higher. Again, net losses to the trawlers would be less if the catch is foregone and thus effort and fishing costs are reduced, or if the fleet was able to harvest its portion of yellowfin sole at an alternate area or time, but at increased cost.

It is possible that the fleet could harvest the entire yellowfin sole quota elsewhere. If this were the case then the cost would be the increased costs associated with fishing activity. Table 5 shows that in both 1986 and 1988 the average CPUE was significantly higher outside the proposed closure rather than inside. If this were the case then, all else equal, the fleet would suffer losses by using the closed area. However, PSC rates are higher outside the proposed closure area (Table 4) and this has resulted in fishery closures in the past. It is not clear whether these rates will be restrictive with a solely domestic fleet due to different bycatch rates and fishing techniques.

Socioeconomic impacts

Maintaining the larger closure area would provide the greatest assurance that the number of walrus haulouts would not decrease. It would also reduce airborne noise which disturbs visitors. Given this, visitors would continue to enjoy the walrus and serenity of the Sanctuary.

Option of sunseting the restrictions in five years

The benefits and costs of the sunset option are the same as for Alternative 2.

3.4 Benefit-Cost Conclusion

Allowing the buffer zone to expire, Alternative 1, carries a possible cost to walrus if fishing activity did cause them to avoid preferred haulouts in 1987-88. It costs visitors to the Walrus Sanctuary due to increased noise and activity. It presents few if any benefits to the fishing fleet since any new fishing possibilities are probably equal to those occurring outside the area.

The continuation of the buffer zone, Alternative 2, gives moderate possible protection to walrus, continued benefits to visitors and the public from reduced interference, and marginal if any costs to the fishing fleet.

The institution of the large closure, Alternative 3, gives the highest possible protection to walrus, no significantly greater benefits to visitors than from Alternative 2, and higher, although non-quantifiable, costs to the fishing fleet.

Currently, three main user groups compete for access to this area: the commercial trawl fleet, walrus, and visitors. The commercial trawl fleet is not significantly impacted by the presence of the other two groups. Visitors are positively impacted by the presence of walrus. The direct impact of the fleet on visitors would be mainly in the form of increased noise/activity. Indirectly, the fleet could also be contributing to a reduction in the number of walrus hauling out. Both of these effects would be negative, from the viewpoint of visitors. Presumably, the presence of either human user group would diminish the attractiveness of the site to the walrus and could affect their use of the site.

The State of Alaska closely regulates the use of this area by visitors in an attempt to balance the demands of this user group with concern for the impact of their presence on the walrus. Round Island and Cape Peirce are unique recreational sites; there is not a substitute for the viewing experience afforded there. It is difficult to place a value on the experience of viewing wildlife in their natural setting with little indication of human interference. Given that the economic benefits which accrue from in situ conservation of a preserved natural area and a stock are hard to quantify, they are seldom acknowledged in benefit-cost analyses. As a result, usually the true economic value of the site is underestimated (Oldfield, 1984).

It is also hard to quantify what, if any, benefit will accrue to the walrus under the three alternatives. There are considerable difficulties with monitoring of the walrus population and these monitoring efforts only provide general trends in population sizes, rather than reliable estimates of actual numbers.

Given the uncertainty of the impacts of the fishing fleet on the walrus, and given the risk of being unable to detect major fluctuations in the walrus population until after the fact, one must acknowledge that there is a cost attached to "guessing" wrong. Some benefit might be gained in erring on the side of conservation, especially if it can be done without imposing a substantial cost on the fishing industry.

3.5 Reporting Costs

No significant change in reporting or paperwork costs are anticipated under any of these alternatives.

3.6 Administrative, Enforcement, and Information Costs

Under Alternatives 2 and 3, added enforcement costs would be expected as currently there exist no ongoing aerial and sea surveys of this area. If such surveys were to be implemented to monitor enforcement of the closed area, they could be expected to run about \$17,500 per month (this assumes one flight per month with a C-130 which would require about 5 hours flight time at \$3,500 per hour). The Sanctuary is already monitored by the State of Alaska for visitor access to the islands.

3.7 Distribution of Costs and Benefits

To the extent that the costs and benefits can be measured, they apply to the various user groups differently under the various alternatives. Under Alternative 1, allowing the protective measures to expire, the benefit, if any, will be to the trawl fleet. Under this alternative the fleet will retain access to the fishing grounds during the months of April through September. The costs under this alternative will be borne by the walrus population, should interference with haulout or other activities occur, and on visitors and the public at large as a result of a negative externalities from the noise

associated with fleet activity and from any decrease in the numbers of walrus hauling out and the decrease in satisfaction and research this brings.

Under Alternatives 2 and 3, the costs will fall directly on the commercial fleet in the form of either foregone catch and revenues or increased costs due to the displacement of one sector of the fleet from preferred fishing grounds. If the measures in Alternative 2 are not sufficient to ensure that walrus can utilize the northern Bristol Bay area and haulouts without interference then costs would also be borne by the walrus population and, to a lesser extent, by visitors and the public at large.

APPENDIX I TO CHAPTER 3

Commercial Salmon and Herring Fisheries of Northern Bristol Bay

The following provides a synopsis of the salmon and herring fisheries in the Togiak area of northern Bristol Bay between Cape Constantine and Cape Newenham. Since these fisheries are wholly conducted within the State of Alaska's three-mile territorial zone, the Council has no regulatory authority over them. However, there are several hundred vessels associated with each of several herring and salmon fisheries, and the disturbance to walrus from these fisheries has not been included in this analysis. Since the vessels are much smaller than the trawlers discussed in previous sections of this analysis, the disturbance is therefore believed to be less. Nonetheless, it is recognized that even if the Council takes action to regulate trawling to minimize walrus disturbance, such action will not reduce or otherwise affect the conduct of the salmon and herring fisheries in the area.

Herring Fishery

The Bristol Bay domestic commercial sac-roe and roe-on-kelp fisheries began in the 1960s, but remained at very low levels until passage of the Magnuson Fishery Conservation and Management Act provided the opportunity for these fisheries to expand by reducing foreign harvests. Prior to 1978, the domestic fishery was allowed to develop without regulatory restrictions imposed by the State of Alaska. Since then, regulatory measures have been adopted concerning seasons and fishing periods, gear specifications, boundaries, and catch reporting to ensure that harvests do not exceed quotas. Quotas are generally established at twenty percent of the available biomass. The fishery occurs over about a ten day period each Spring between late April and late May. The fishery has been managed via emergency order announcements since 1981. A regulatory management plan has been developed to take into consideration variable exploitation rates on young versus older year class herring. There is also a herring roe-on-kelp fishery conducted within designated intertidal areas.

The fishery is conducted in nearshore areas between Kulukak Bay and Cape Newenham (Figure A). Beginning with the 1988 season, the gillnet fishery was restricted to the east of Togiak Bay and the seine fishery was restricted to Togiak Bay and areas to the west. However, these restrictions were abolished in 1990. Gillnet boats generally range in size from open skiffs to 32-foot "salmon" vessels. Seine boats range in size from 32-foot "salmon" vessels to 68-foot limit seiners.

This herring fishery is not a limited entry fishery. Fishing effort levels have remained relatively stable during the past five years while there has been a general decline in harvest which is expected to continue due to the present age structure of the population (high fraction of very old age herring with very low recruitment of younger fish). Fishing vessel effort and catch levels for the period 1984 through 1988 are as follows:

<u>Year</u>	<u>Processors</u>	<u>Purse Seine</u>	<u>Gillnet</u>	<u>Catch (tons)</u>
1984	25	196	300	19,300
1985	23	155	302	25,616
1986	23	209	209	16,260
1987	18	111	148	15,204
1988	22	239	300	13,986
1989	19	310	320	12,258
1990	16	221	277	8,792

Salmon Fisheries

The Bristol Bay commercial salmon fishery began in the 1880s. Commercial fishing is limited to drift and set gillnet gear types fished in five discrete fishing districts (Figure B) which are positioned off the mouths of major rivers. Approximately 1,800 drift and 900 set gillnet limited entry permits have been issued for Bristol Bay, essentially all of which are fished each year. Both gear types are allowed to move from district to district throughout the season, so effort levels within any single district vary within season and between years.

The commercial salmon fishery did not begin in the Togiak District until the 1950s. This district is characterized by smaller salmon runs. Consequently, both effort and catch levels are relatively low compared to other districts within Bristol Bay. Drift gillnet effort accounts for about 68% of the harvest. Drift gillnet peak effort levels are generally between fifty and one hundred vessels, although effort levels may reach nearly two hundred for very short periods. Drift gillnet boats range in size up to a maximum of 32 ft. There are about 36 setnet units which fish in Togiak District.

The primary salmon species caught are sockeye and chum, however, significant numbers of chinook, coho, and pink salmon are also caught during a season that typically extends from the first of June into mid September with peak catches occurring in July. Catches for the period 1984 through 1988 are as follows:

<u>Year</u>	<u>Sockeye</u>	<u>Chinook</u>	<u>Chum</u>	<u>Pink</u>	<u>Coho</u>
1984	319,000	22,000	339,000	21,000	171,000
1985	210,000	37,000	206,000	341	39,000
1986	304,000	20,000	270,000	25,000	48,000
1985	340,000	18,000	422,000	24	1,000
1988	822,000	16,000	471,000	57,000	19,000
1989	89,000	11,300	203,000	170	56,000
1990	237,000	12,200	115,700	9,000	2,700

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Table 1

Summary of Maximum Walrus Haulout Numbers
from Cape Peirce and Round Island, 1978-1990.

Year	Cape Peirce Maximum	Round Island Maximum
1978		15,000
1979		N/A
1980		11,603
1981		7,387
1982 ¹		11,000+
1983		N/A
1984 ²	9,450	6,000+
1985	12,548	2,857
1986	9,494	12,378
1987	6,249	5,300
1988	6,938	4,424
1989	2,436	7,792
1990	1,474	6,891

Source:

USFWS files except as noted below.

1 ADF&G files. In: LGL, 1989.

2 Round Island data: ADF&G files. In: LGL,
1989.

Table 2 Annual catches (mt) of yellowfin sole in the eastern Bering Sea, 1977-90.

Year	Domestic			Total
	Foreign	JVP	DAP	
1977	58,373		0	58,373
1978	138,433		0	138,433
1979	99,017		0	99,017
1980	77,768	9,623	0	87,391
1981	81,255	16,046	0	97,301
1982	78,331	17,381	0	95,712
1983	85,874	22,511	0	108,385
1984	126,762	32,764	0	159,526
1985	100,706	126,401	0	227,107
1986	57,197	151,400	0	208,597
1987	1,811	179,613	4	181,428
1988	0	213,323	9,833	223,156
1989	0	151,501	1,664	153,165
1990 ¹	0	69,677	16,002	85,679

¹ Preliminary estimates from the NMFS Observer program as of January 16, 1991.

Sources: NPFMC, Bering Sea/Aleutian Islands Groundfish Plan Team. 1990. Stock Assessment and Fishery Evaluation Document for Groundfish Resources in the Bering Sea/Aleutian Islands Region as Projected for 1991. 209 pp.
Ren Narita, 1991. Pers. Comm. NMFS, Observer Program, February 1991.

Table 3 Comparison of the harvest levels between Capes Peirce and Constantine to the total Bering Sea harvest of yellowfin sole, 1986-90, in metric tons.

Year	Catch in subarea	Total harvest Bering Sea	Percentage of Total harvest
1986	2,813 mt	208,597 mt	1.3%
1987	40,689 mt	181,428 mt	22.0%
1988	84,785 mt	223,156 mt	37.9%
1989	0 mt	153,165 mt	0%
1990 ¹	0 mt	85,679 mt	0%

¹ Preliminary estimates from the NMFS Observer program as of January 16, 1991.

Sources: NPFMC, Bering Sea/Aleutian Islands Groundfish Plan Team. 1988. Final Resource Assessment Document for the 1989 Bering Sea/Aleutian Islands Groundfish Fishery. 236 pp.
Ren Narita, 1991. Pers. Comm. NMFS, Observer Program, February 1991.

Table 4
Observed Joint Venture Bycatch Rates of Prohibited Species, 1987 and 1988, in the Bering Sea, Northern Bristol Bay, and Zones Surrounding Round and The Twins Islands.

	<u>1987</u>				<u>1988</u>			
	Salmon	Halibut	Tanner crab	King crab	Salmon	Halibut	Tanner crab	King crab
<u>Within Six Miles of Round and The Twins Islands</u>								
Mean number/mt	.000	.389	.000	.019	.001	.113	.000	.023
Avg. kg/individ.	(6.525)	(2.084)	(0.000)	(0.822)	(3.233)	(5.133)	(0.000)	(0.543)
<u>Within Twelve Miles of Round and The Twins Islands</u> ¹								
Mean number/mt	.001	.302	.002	.016	.000	.084	.002	.017
Avg. kg/individ.	(7.889)	(2.364)	(0.342)	(1.031)	(3.233)	(4.458)	(0.129)	(0.805)
<u>Northern Bristol Bay</u> ²								
Mean number/mt	.000	.232	.003	.008	.000	.050	.029	.008
Avg. kg/individ.	(7.894)	(2.781)	(0.303)	(1.054)	(5.163)	(6.294)	(0.077)	(0.853)
<u>Bering Sea except N. Bristol Bay</u>								
Mean number/mt	.014	1.772	1.616	.162	.000	.487	1.151	.369
Avg. kg/individ.	(3.441)	(2.978)	(0.067)	(1.169)	(3.260)	(5.236)	(0.112)	(1.015)
<u>All Areas Combined</u>								
Mean number/mt	.006	.890	.685	.074	.000	.231	.494	.158
Avg. kg/individ.	(3.602)	(2.948)	(0.067)	(1.161)	(4.782)	(5.370)	(0.111)	(1.011)

Notes:

- 1 Includes all observations from within six miles.
- 2 Encompasses an area from Cape Constantine to the southernmost tangent of a 12-mile radius around Cape Peirce including all perviously reported observations from within twelve miles.

Source: Ren Narita, 1991. Personal communication. NMFS, Observer Program, March, 1991.

Table 5 Summary of Yellowfin sole catch information when observers were present, 1986-1989.

WITHIN 12 MILES OF THE WALRUS ISLANDS

Year	Total catch (mt)	Mean CPUE (mt/hr) ¹	CPUE Range (mt)	n ²
1986	684.1	4.8	1.25-8.3	43
1987	11,866.5	17.4	1.37-289.1	525
1988	1,736.1	7.9	1.23-33.2	96
1989	0.0	0	0	0

INSIDE BRISTOL BAY BUT OUTSIDE 12 MILES OF THE WALRUS ISLANDS

Year	Total catch (mt)	Mean CPUE (mt/hr) ¹	CPUE Range (mt)	n ²
1986	533.7	6.1	2.3-13.4	30
1987	19,439.5	27.4	1.5-359.0	875
1988	3,586.5	7.9	1.8-27.1	181
1989	0.0	0	0	0

TOTAL BERING SEA FISHERY

Year	Mean CPUE (mt/hr) ¹	CPUE Range (mt)	Catch Range (mt)	n ²
1986	13.9	0.1-316.1	1.2-67.1	3,702
1987	18.7	0.1-359.0	2.2-78.4	4,047
1988	15.3	1.1-242.6	2.1-78.6	2,603
1989	72.6	0.2-968.4	0.7-785.0	3,869

¹ Weighted by the size of the catch.

² Number of observations.

Sources: Jerry Berger, 1989. Pers. Comm. NMFS, Observer Program, February 1989.
Ren Narita, 1991. Pers. Comm. NMFS, Observer Program, February 1991.

Figure 1

Northern Bristol Bay

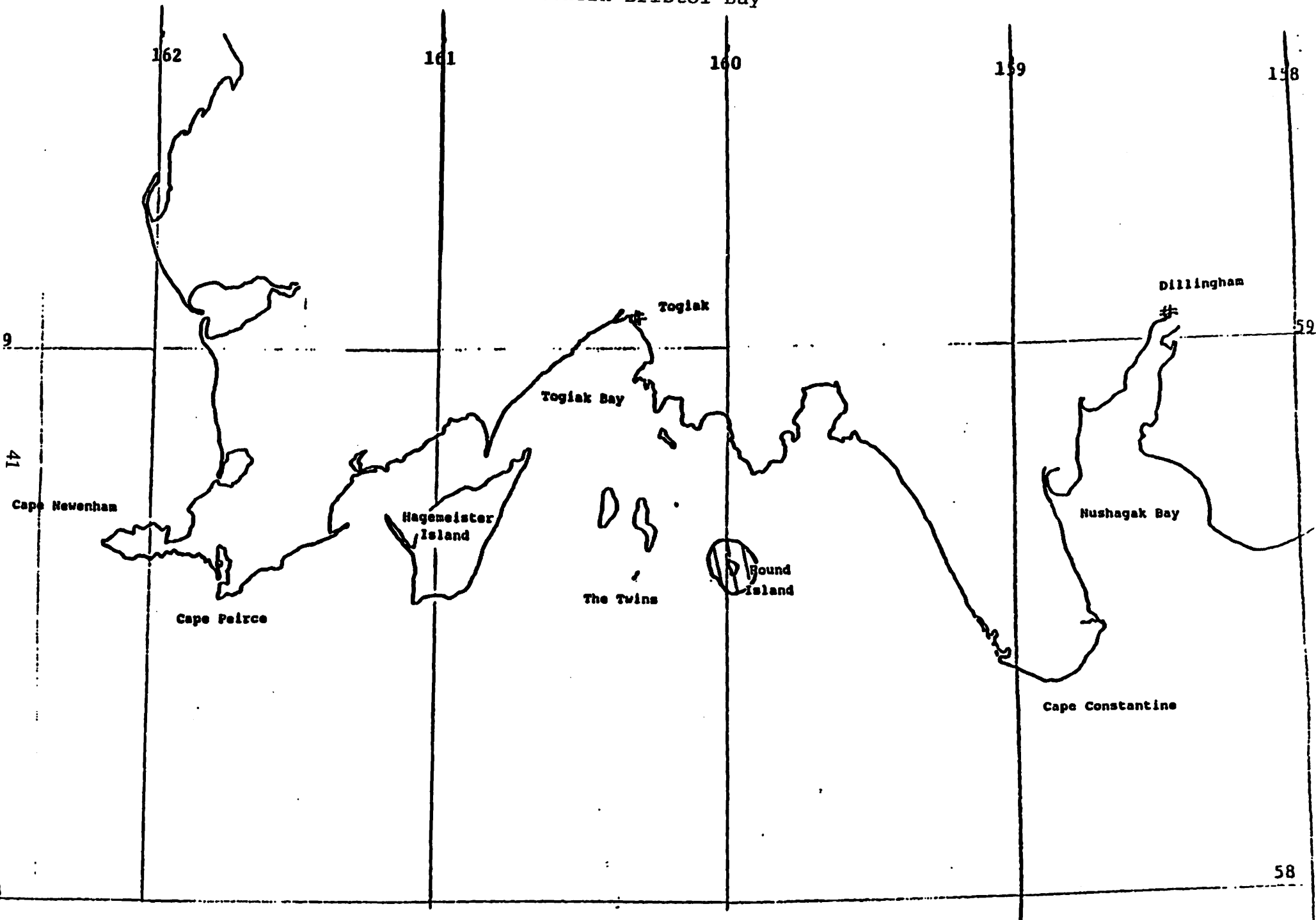
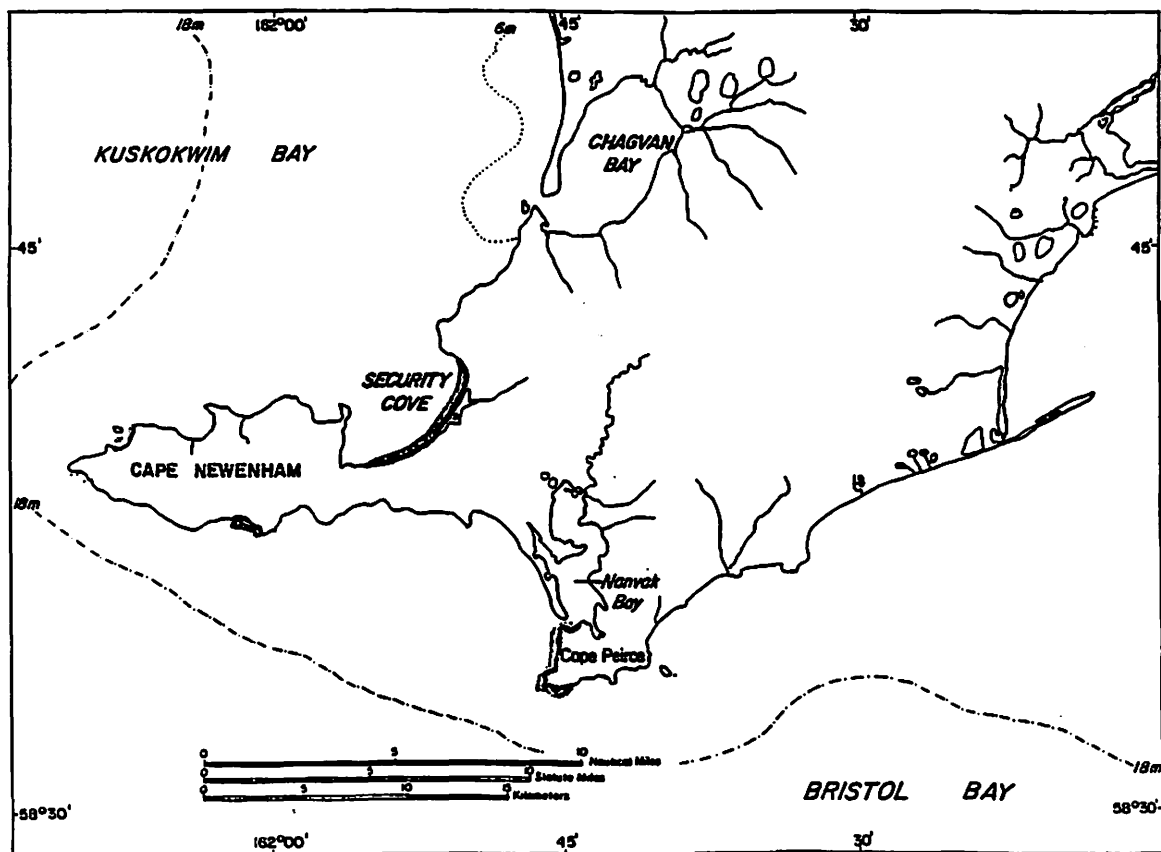
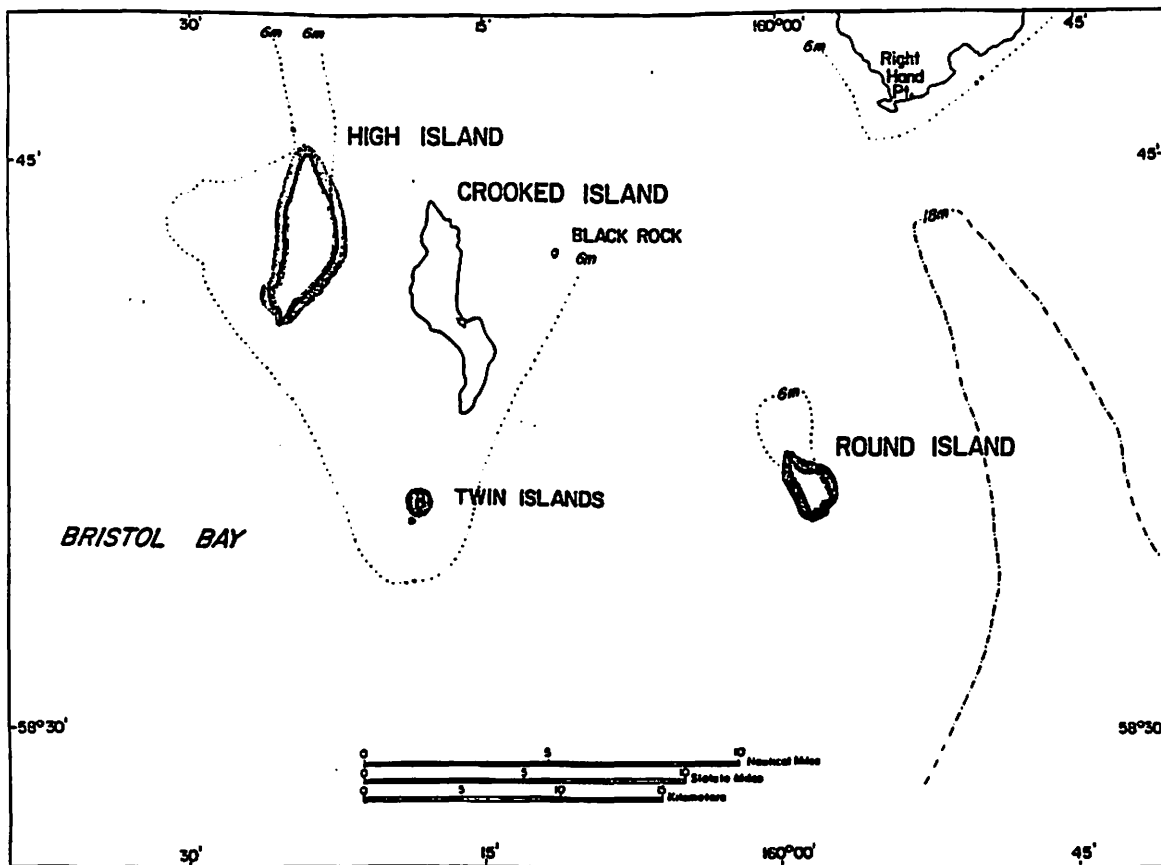


Figure 2
Northern Bristol Bay
Walrus Haulout Location



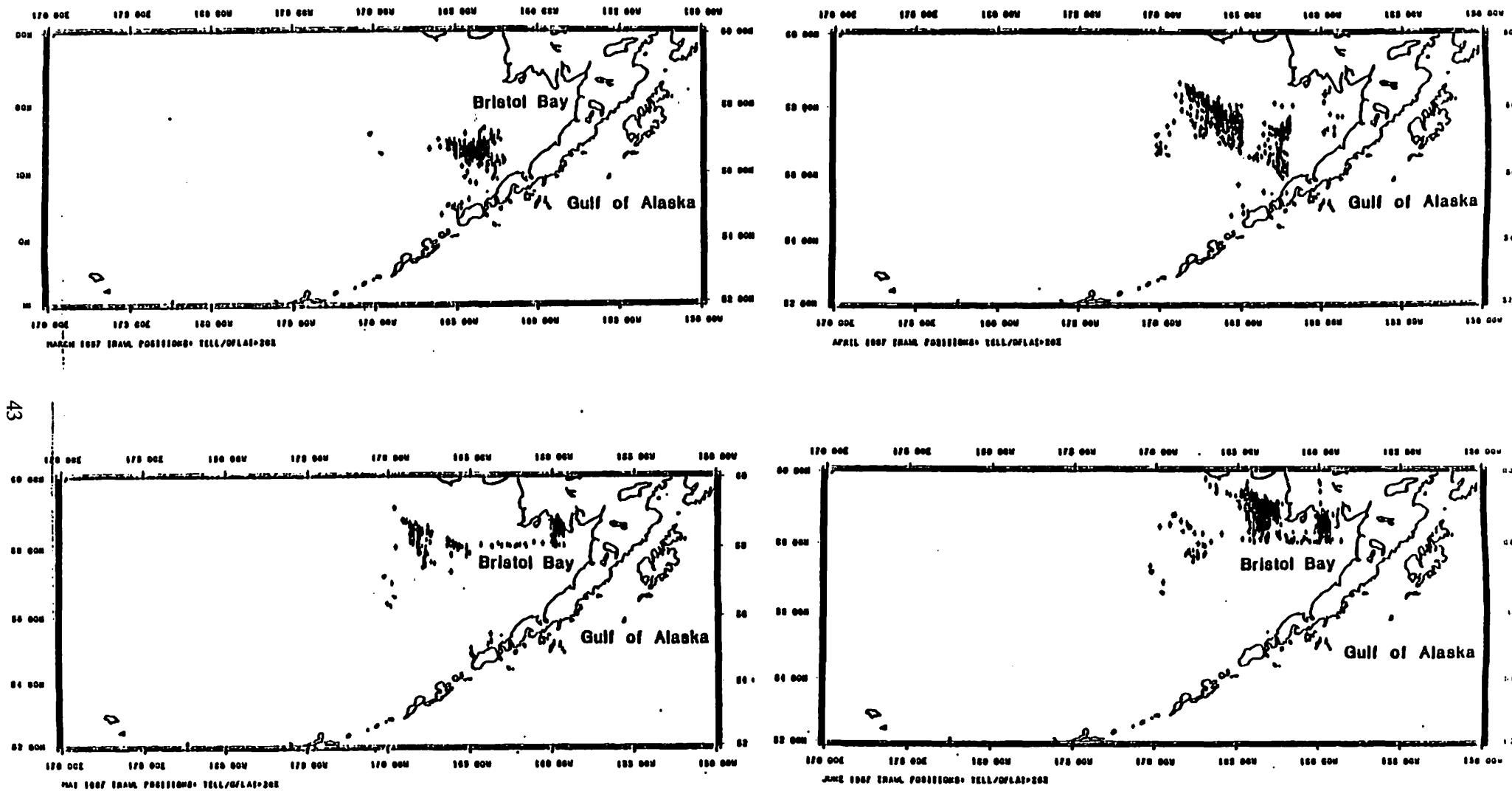


Figure 3 Figures showing the locations of joint venture catches where yellowfin sole comprised greater than 20% of the total catch weight during March through June 1987.

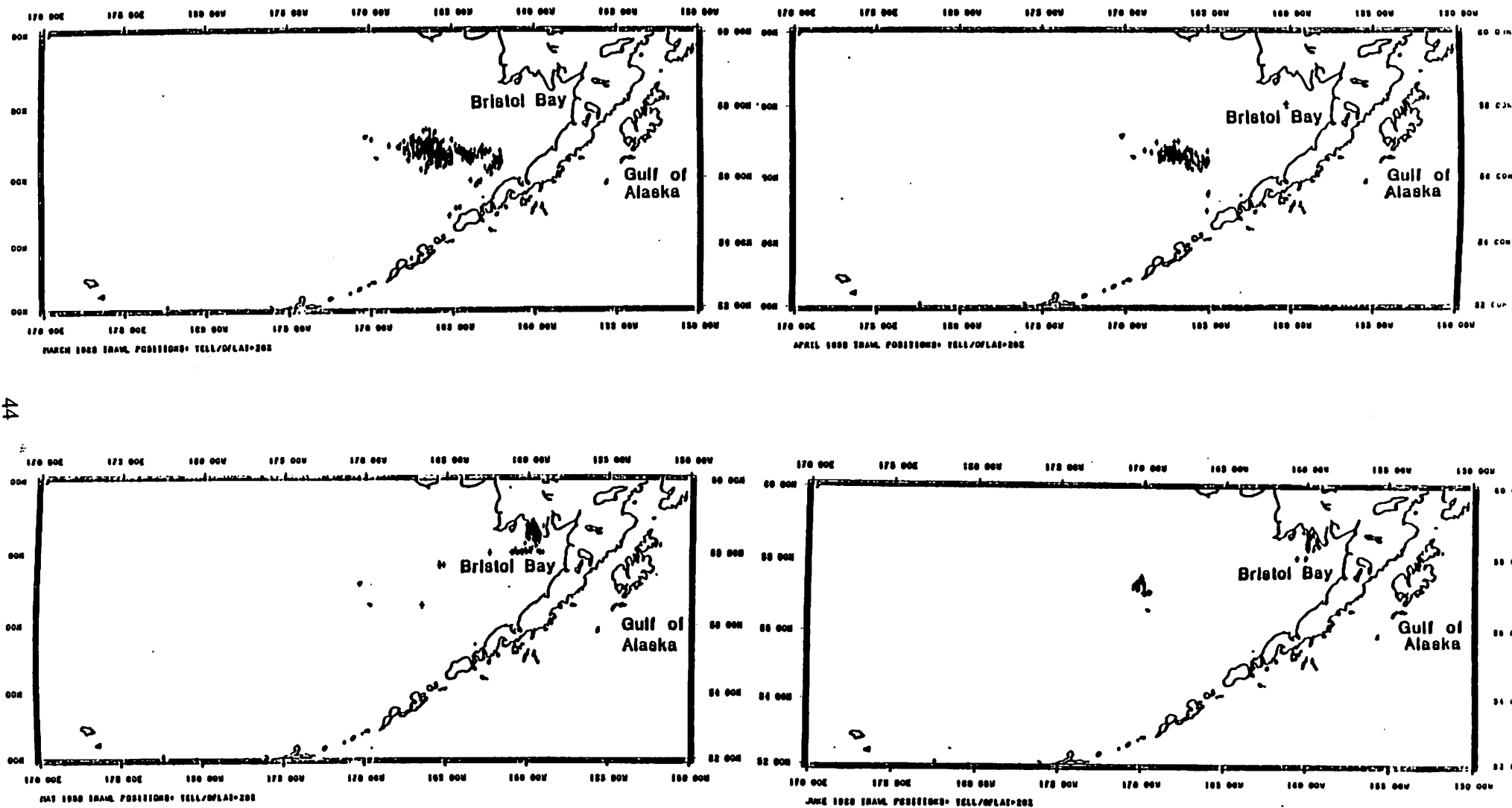


Figure 4 Figures showing the locations of joint venture catches where yellowfin sole comprised greater than 20% of the total catch weight during March through June 1988,

Figure 5 Figures showing the locations of joint venture catches where yellowfin sole comprised greater than 20% of the total catch weight during January through March 1989.

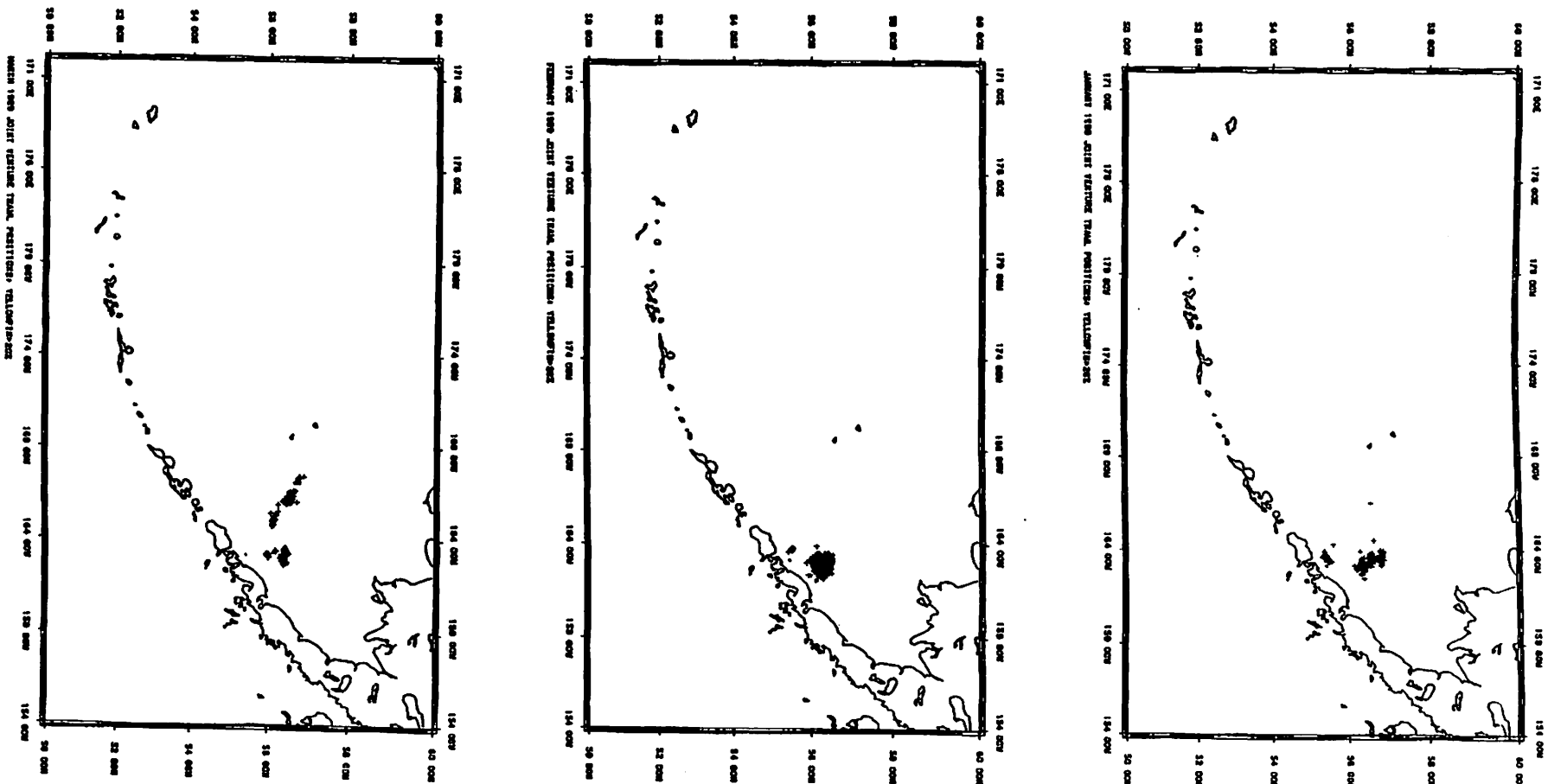


Figure 6 Figures showing the locations of joint venture catches where yellowfin sole comprised greater than 20% of the total catch weight during September through December 1989.

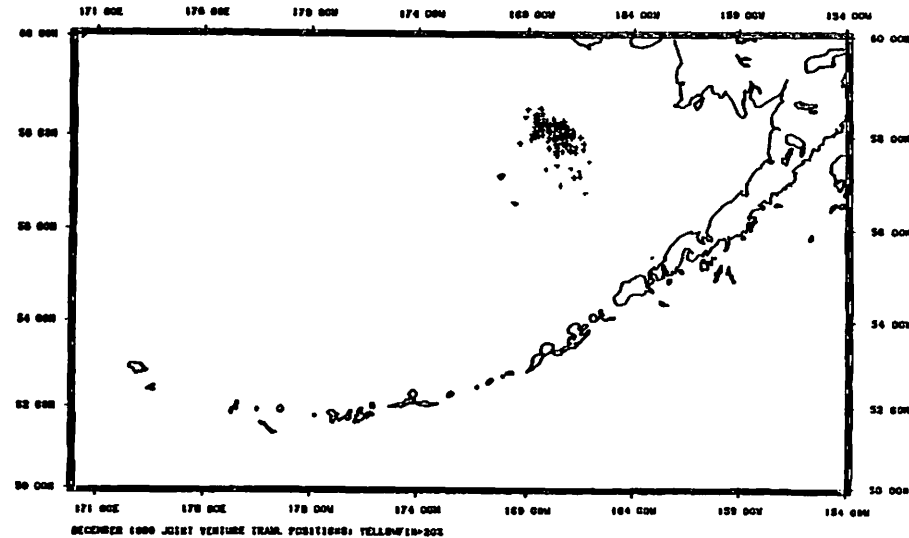
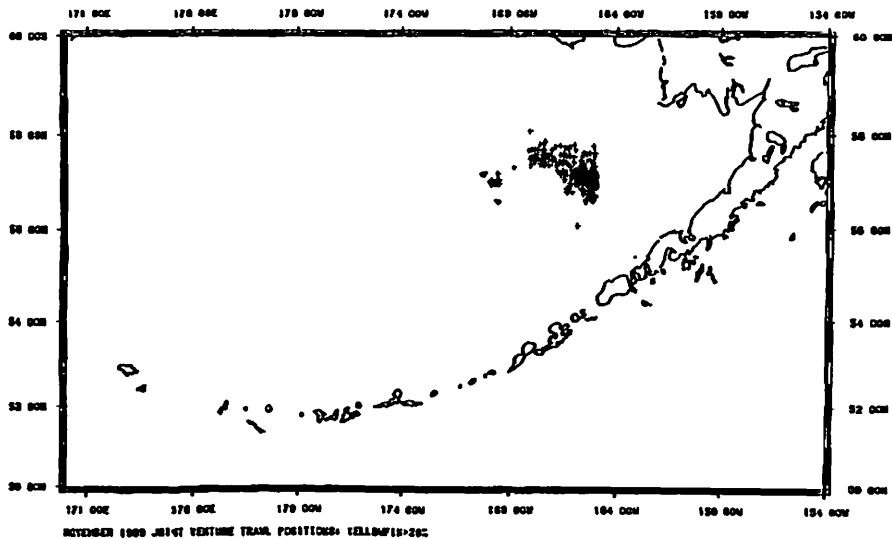
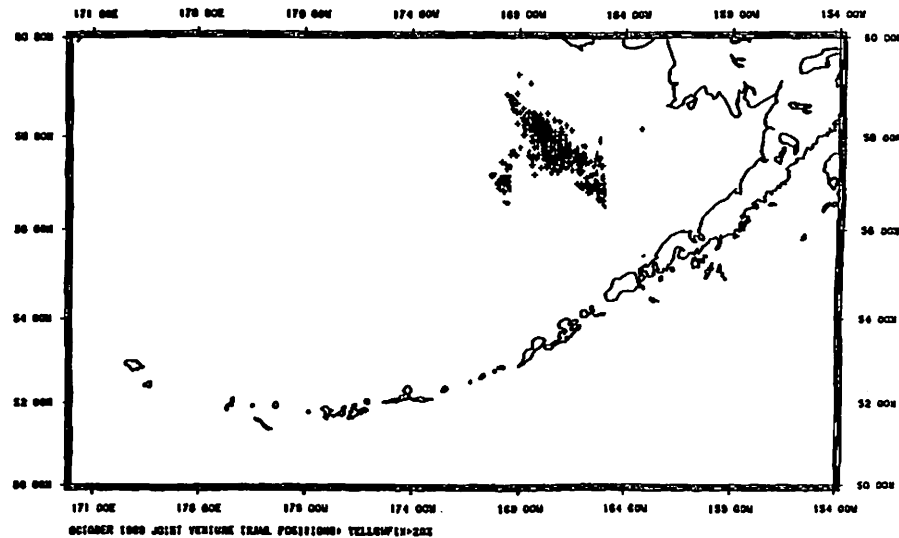
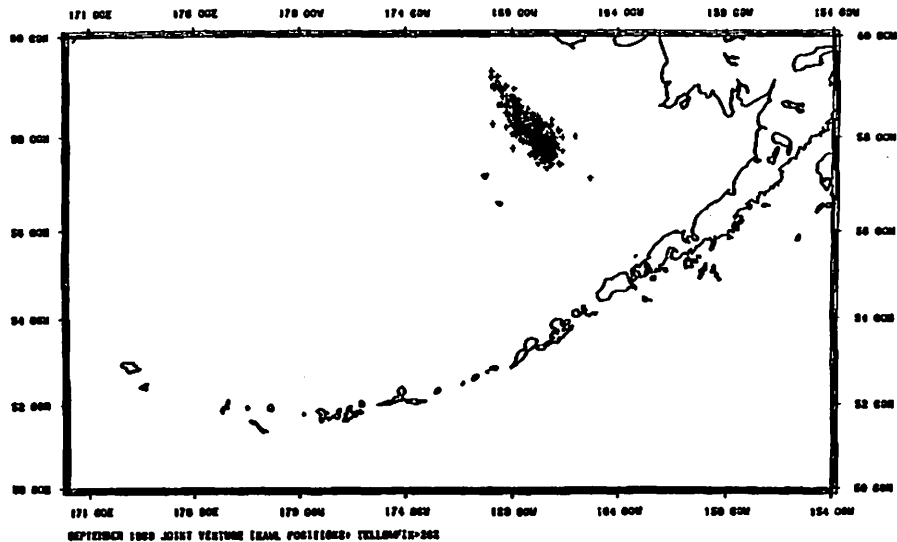
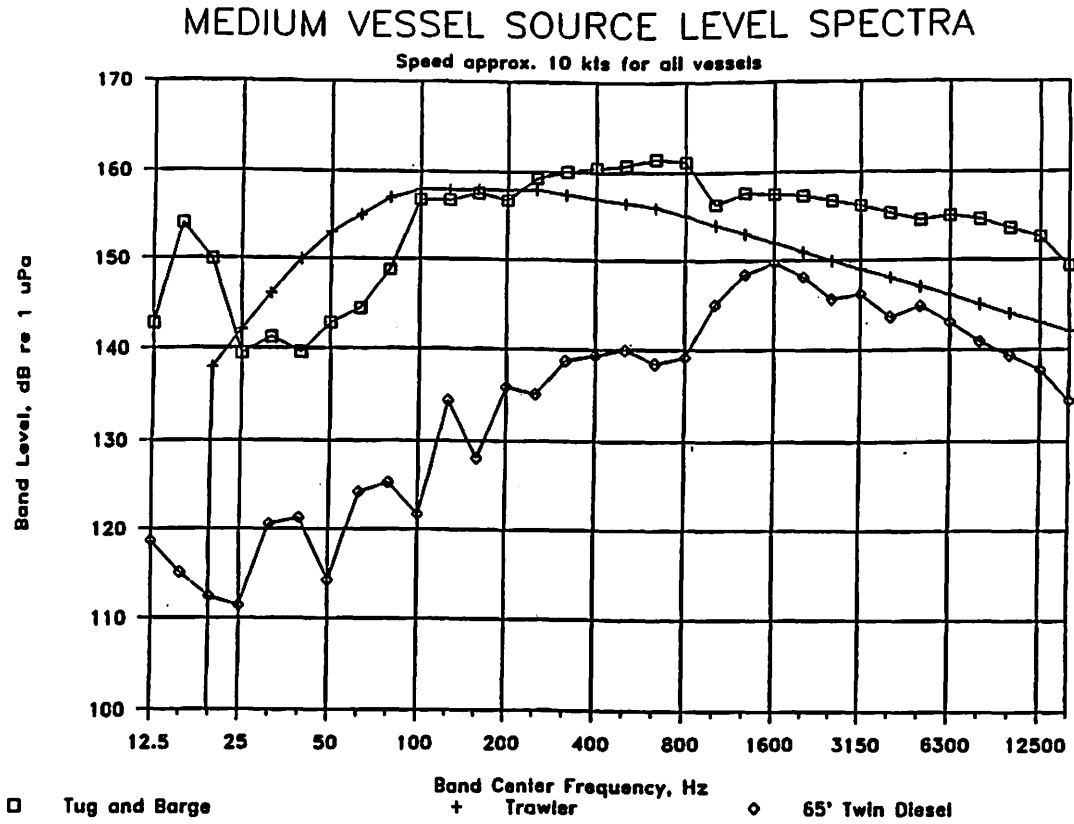
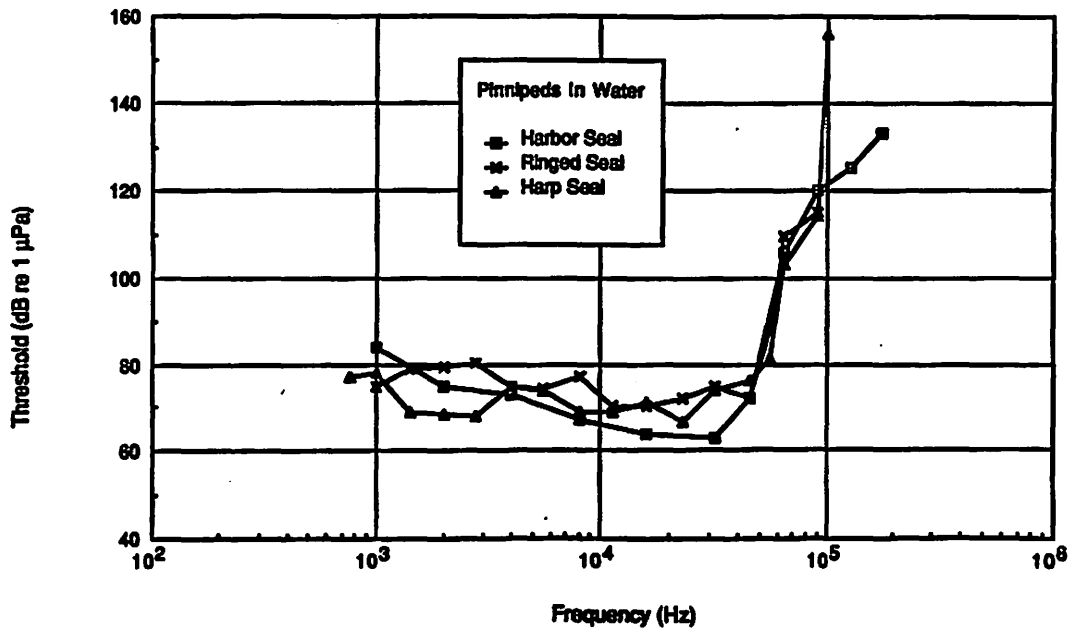


Figure 7 Underwater Radiated Noise with Fully Cavitating Propellers



From: LGL, 1989

Figure 8 Underwater Audiograms of Several Pinnipeds



Underwater audiograms of several pinnipeds: harbour seal (Mohl 1968a); average of two ringed seals (Terhune and Ronald 1975); harp seal (Terhune and Ronald 1972). In: Davis et al, 1990

Figure 9 ALTERNATIVE 2 - Twelve-mile groundfish fishing closure around Round Island, The Twins, and Cape Peirce. (Closure extends 9 miles seaward from the State's three mile limit.)

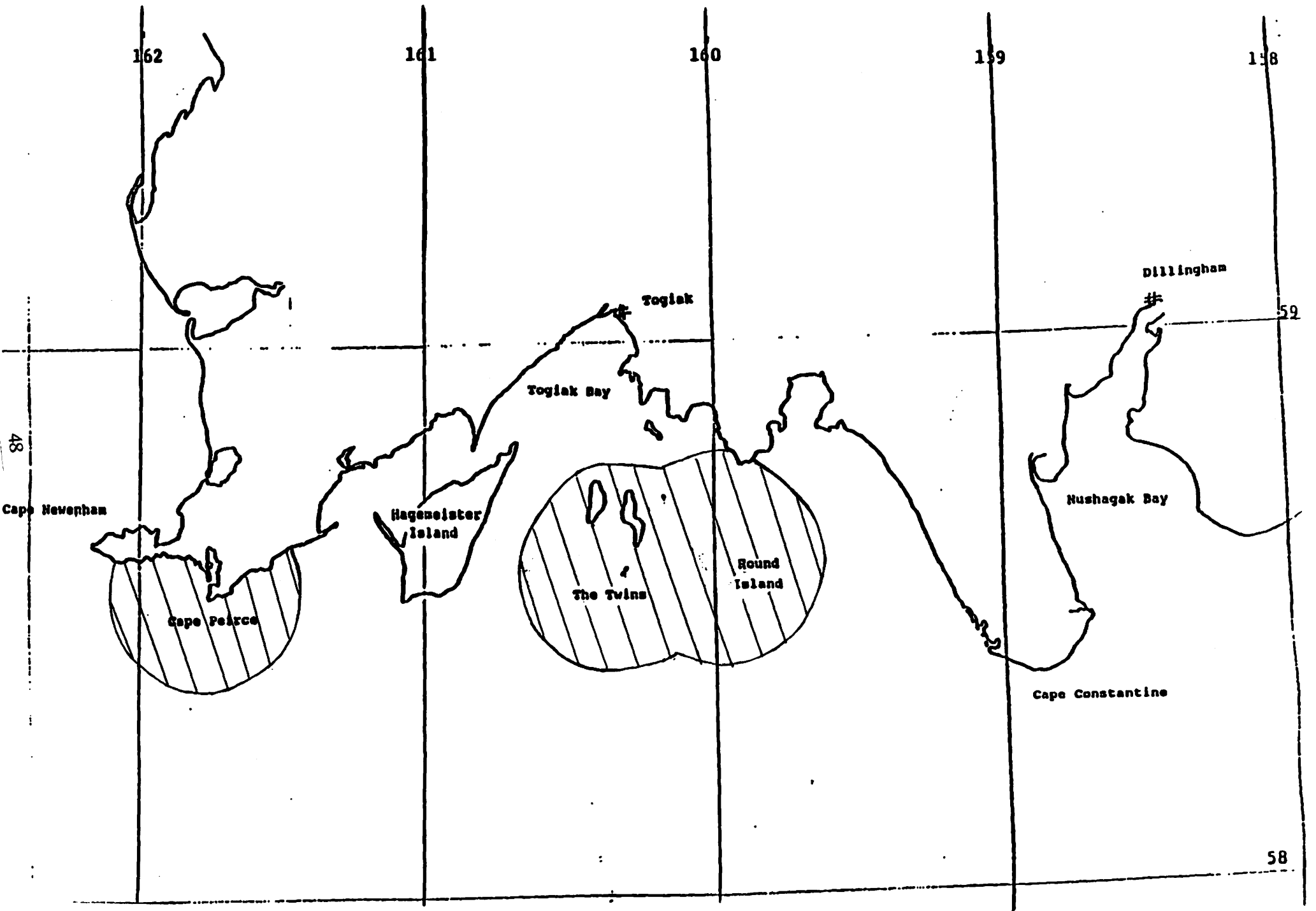


Figure 10 ALTERNATIVE 3 - Groundfish fishing closure from Cape Constantine to a twelve-mile perimeter around Cape Peirce. (Closure extends seaward from the State's three mile limit.)

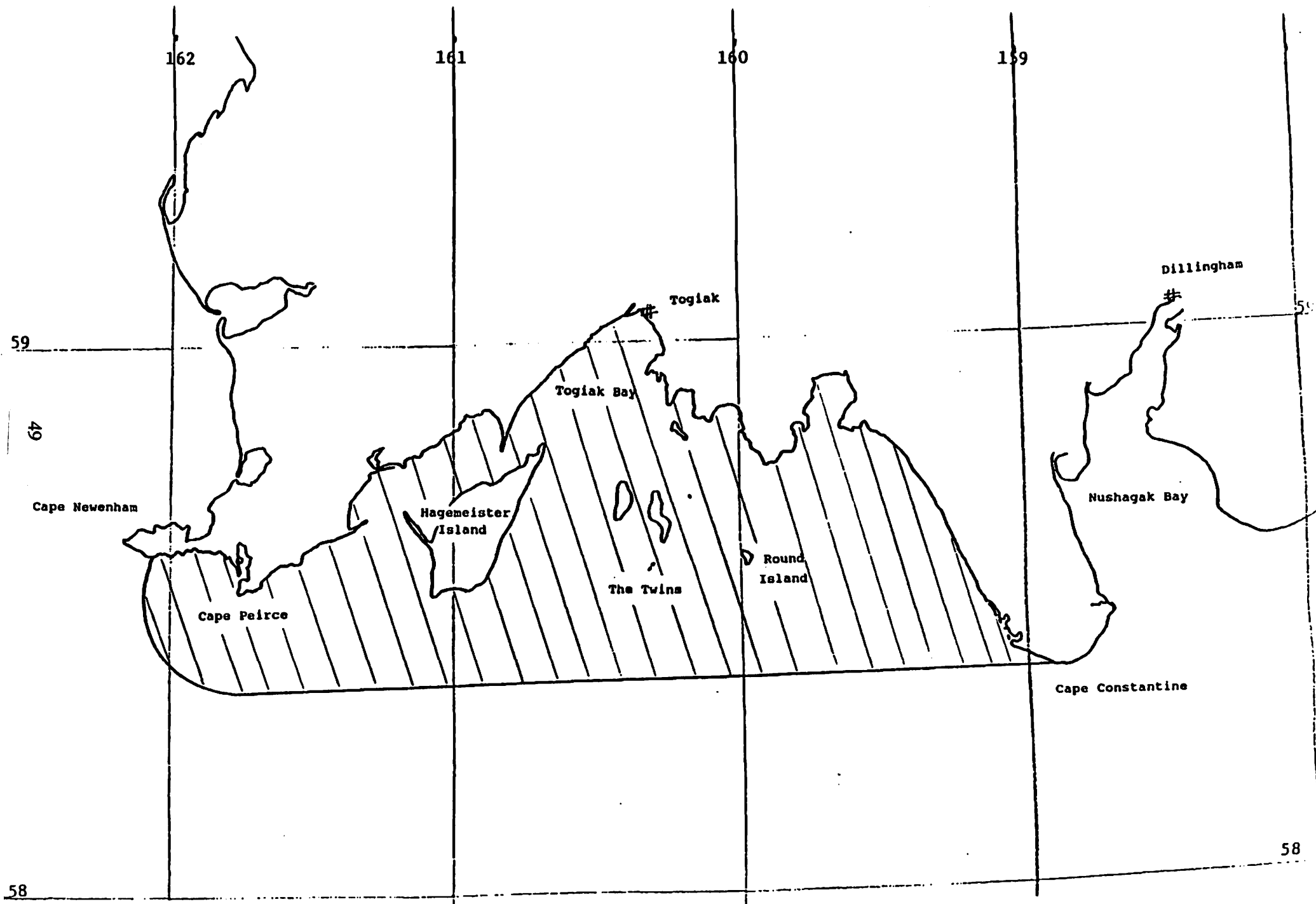


Figure A Togiak Herring Fishing District

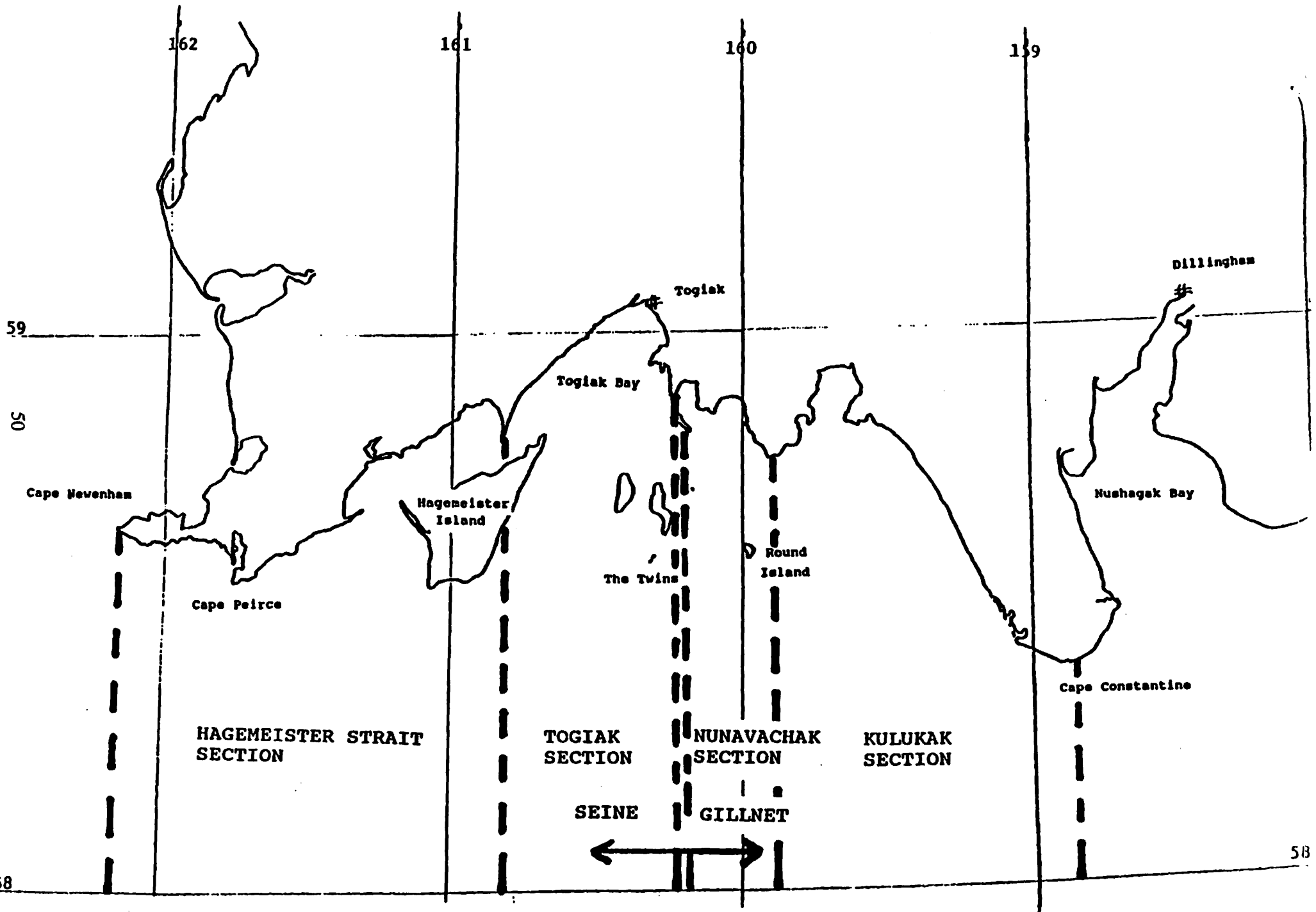
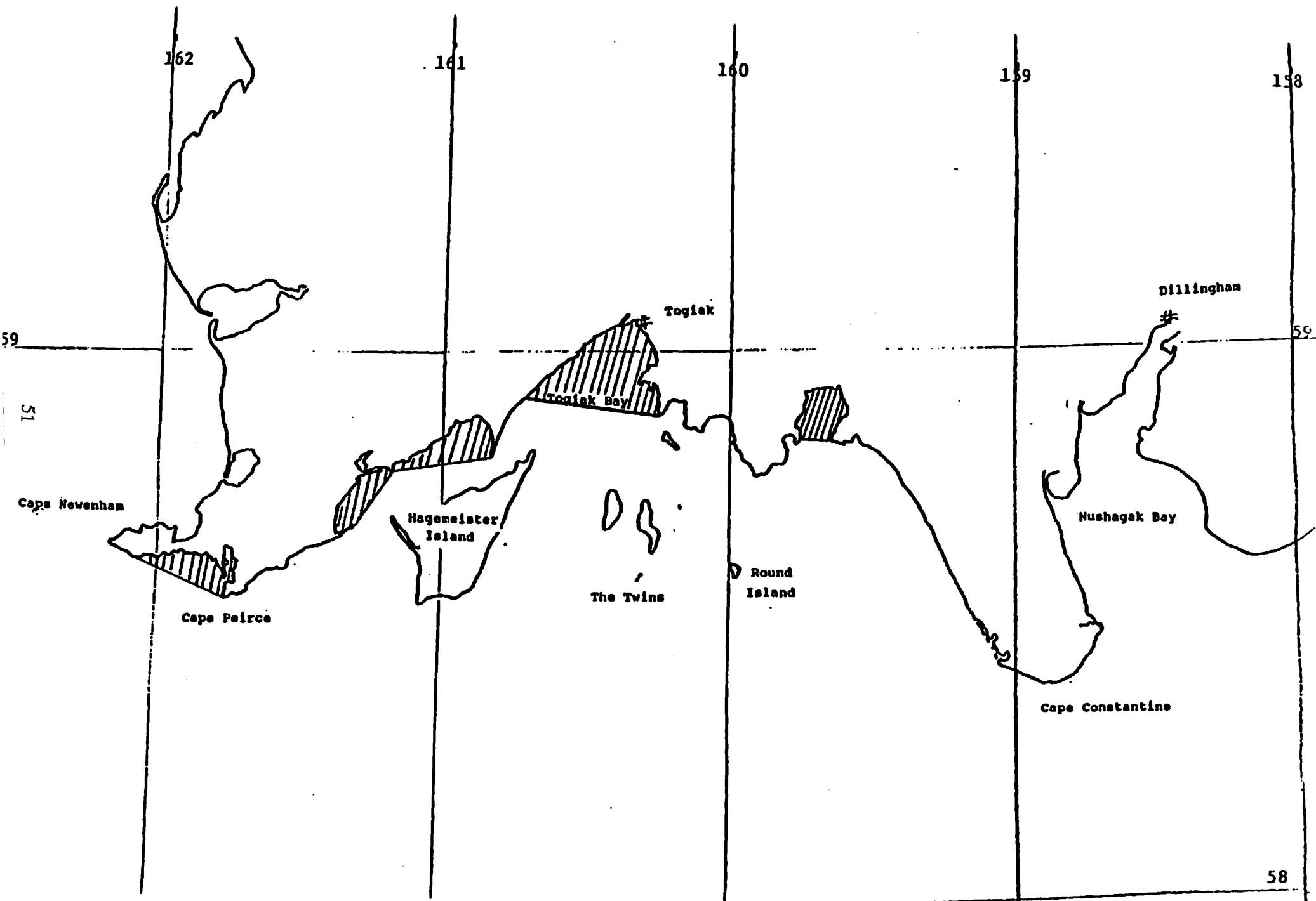


Figure B Togiak District Salmon Fishing Areas



4.0 RESCIND GULF OF ALASKA STATISTICAL AREA 68

4.1 Need for Action

An FMP amendment is proposed to delete the present East Yakutat District (Statistical Area 68) by combining it with the Southeast Outside District (Statistical Area 65). In 1980, the Eastern Regulatory Area in the Gulf of Alaska (Figure 1) was divided into the Yakutat District and the Southeast Outside District for purposes of sablefish management (45 FR 73486, November 5, 1980). In 1983, the Yakutat District was further divided into the West Yakutat District and the East Yakutat District, again for purposes of sablefish management (48 FR 43044, September 21, 1983).

Initial management experience during the 1984 sablefish fishery, however, indicated that the newly created East Yakutat District was not functioning as intended. Because the boundary (137° W. longitude) between the East Yakutat and the Southeast Outside Districts lies across a major fishing ground, catch reports could not be relied upon to separate catches between the two districts.

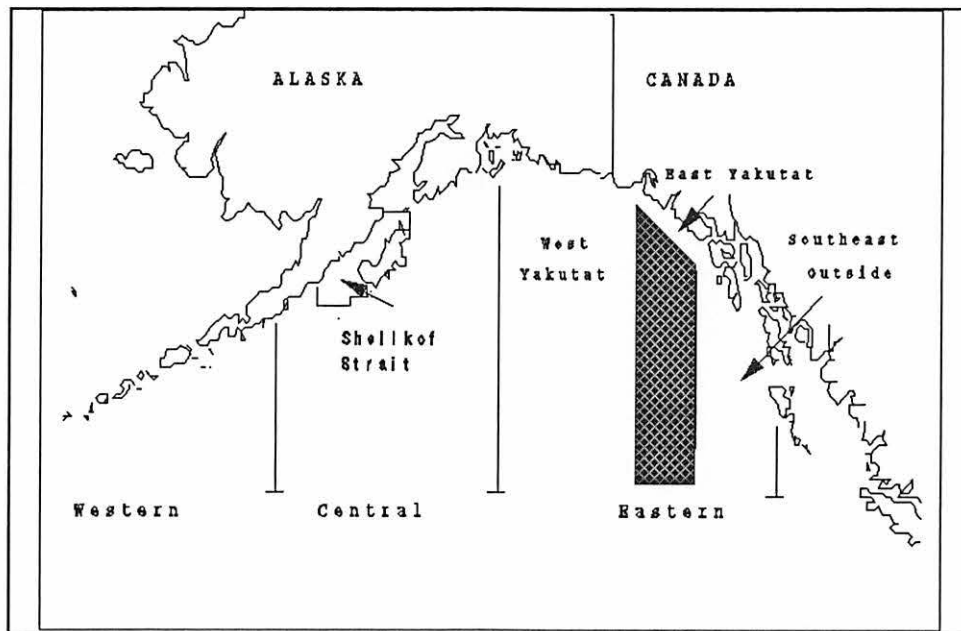


Figure 1. Location of the East Yakutat district in the Gulf of Alaska.

As a practical matter, NMFS has been managing the two districts as a single, combined district since 1984, even though two harvest quotas were established. The combined districts have been referred to as the Southeast Outside/East Yakutat District. Beginning in 1987, a single harvest quota has been specified for these combined districts (52 FR 785, January 9, 1987).

Fishermen, however, are required to maintain records by Federal Reporting Area, which is the same as a statistical area. Regulations at 50 CFR 672.2 identify Statistical Area 68 as the East Yakutat District. Fishermen are required to complete each day an additional sheet in the Daily Fishing Logbook for each reporting area they fish. If they fish in Area 68 and then fish in the Area 65 (Southeast Outside District), they must complete an additional sheet in the Daily Fishing Logbook

(DFL). Likewise, operators of processor vessels and managers of shoreside processing facilities who receives or processes groundfish from both reporting areas on the same day must complete an additional sheet in the Daily Cumulative Production Log (DCPL). Such reporting is necessary when harvest quotas are specified for each area. Because only one harvest quota is specified for the combined Southeast Outside/East Yakutat District, no useful information is obtained from the additional reports.

4.2 Alternatives

4.2.1 Alternative 1: Do nothing

Under this alternative, Statistical Area 68 would not be rescinded. Recordkeeping and reporting requirements would continue to apply to this area. Groundfish management would not be affected except for sablefish and demersal shelf rockfish (DSR). Other groundfish target species are managed as TAC categories specified for all of the Eastern Regulatory Area or all of the Gulf of Alaska. No changes in the area where the sablefish TAC applies would occur under this alternative, which would still apply to 132°40' - 140°W longitude, i.e., statistical areas 65 and 68 combined.

Under the FMP, the State of Alaska has primary management authority for DSR in the Eastern Regulatory Area. Its application applies to areas where a TAC is specified. To date, a DSR TAC has only been established for statistical area 65. In the areas to the west of 137°W longitude, any DSR is managed as "other rockfish." Under this alternative, application of the DSR TAC would continue to apply to the 132°40' - 137°, i.e., statistical area 65.

4.2.2 Alternative 2: Rescind Statistical Area 68.

Under this alternative, Statistical Area 68 would be rescinded by combining it with Statistical Area 65. No changes in sablefish management would occur. The TAC for DSR would extend westward three degrees of longitude.

4.3 Environmental impacts of the alternatives

4.3.1 Biological and environmental impacts

4.3.1.1 Alternative 1.

Under this alternative, Statistical Area 68 will be retained. No biological or environmental impacts would result, however.

4.3.1.2 Alternative 2.

Under this alternative, Statistical Area 68 will be rescinded. No biological or environmental impacts will result relative to Alternative 1.

4.3.2 Socioeconomic Impacts

4.3.2.1 Alternative 1.

Recordkeeping and reporting requirement would still apply to Statistical Area 68. If fishermen were to fish in Area 65 and then fish in Area 68 on the same day, they must complete an additional sheet

in the DFL. Likewise, processors receiving fish from both areas must complete an addition sheet in the DCPL.

The sablefish TAC would still apply to the same area between 132°40' and 140°W longitudes. The DSR TAC would continue to apply to the area between 132°40' and 137°W longitudes.

Industry costs

Fishermen and managers of processing facilities must comply with recordkeeping and reporting requirements. For purposes of the Paperwork Reduction Act, they are called "respondents". An estimated 5 minutes per respondent per day is required to complete each DFL sheet and each DCPL sheet.

The NMFS permit database shows 1,649 catcher and catcher/processor vessels are permitted to fish off Alaska in 1991 (through March 3, 1990). An estimated 124 vessels might actually fish between Areas 65 and 68 on the basis of vessel permits with Sitka telephone numbers. These are hook-and-line vessels that might participate in the sablefish fishery.

The sablefish fishery in the combined areas typically lasts 14 days. If each of 124 hook-and-line vessels fished in both areas each day, a total of 3,472 different sheets in the DFLs would be required to be completed, rather than 1,736 if the areas were combined. At 5 minutes per sheet, 289 hours would be expended by operators of these vessels in completing the sheets rather than about 145 hours. Any additional vessels that fish in Area 68 as well as in Area 65 would also be burdened.

Management and Consumer Costs

Management costs are those associated with enforcement personnel monitoring vessels' logbooks for two statistical areas if fishing has occurred in both areas. If recordkeeping and reporting burdens increase operational costs, these could be passed on to the consumer.

4.3.2.2 Alternative 2.

The sablefish TAC specified for the newly defined statistical area 65 would still apply to the same area as for alternative 1, i.e., between 132°40' and 140°W longitudes. The DSR TAC would apply to an additional 3° of longitude, i.e., from 132°40' - 137° to 132°40' - 140°.

Industry costs

Examples of recordkeeping and reporting costs estimated for Alternative 1 would be saved under this alternative. Sablefish management would not impose different impacts on the industry. Because the State of Alaska allows directed fishing for DSR with hook-and-line gear only, the trawl fleet could forego opportunity to harvest amounts of "other rockfish" by any amount of DSR attributed to the additional three degrees of longitude.

Management and Consumer Costs

Enforcement is simplified if redundant statistical areas are removed, because less detailed monitoring of logbooks is required. If reduced recordkeeping and reporting burdens reduce operational costs, these could be passed on to the consumer. The State of Alaska could incur some additional management costs to the extent that application of the DSR TAC would be extended from 137° to 140°.

5.0 ESTABLISH THE BOGOSLOF DISTRICT IN THE BERING SEA SUBAREA

5.1 Background

Pollock (*Theragra chalcogramma*) is the most abundant groundfish species in the eastern Bering Sea (EBS). The exploitable biomass (pollock aged 3 years and older) for 1991 over the continental shelf area of the EBS is estimated at 6.7 million metric tons (mt). An additional 405,000 mt is estimated for the Aleutian Islands subarea. Generally, the abundance of pollock in the EBS is characterized as high due to strong year classes in 1982 and 1984 but declining due to weaker year classes recruiting to the exploitable population since 1984.

The commercial harvest of pollock also dominates that of all other groundfish species. In 1990, about 1.4 million mt of pollock were caught in the Bering Sea and Aleutian Islands (BSAI) management area which amounted to about 77 percent of the total groundfish catch by U.S. fishermen in this area. This harvest was almost entirely processed by U.S. at-sea or shore-based processors. Only about 22,000 mt, less than two percent of the total 1990 catch, was processed by foreign at-sea processors working in joint ventures with U.S. fishermen. No joint venture processing has been authorized for the pollock fishery in 1991.

Common products made from pollock include frozen blocks, fillets, surimi, meal and roe. Pollock roe has the highest value, per mt. It is harvested from pre-spawning aggregations of pollock during the roe season from January through mid-April.

In 1990, the Council recommended and the Secretary approved, Amendment 14 to the FMP which, in part, provides authority to limit the amount of the total allowable catch (TAC) of pollock that is taken during the roe season (January 1 through April 15). For the 1991 fishing year, the Council has recommended that the roe-season fishery be limited to 441,500 mt which is 34 percent of the 1991 pollock TAC of 1.3 million mt for the Bering Sea subarea.

5.2 Need for Action

Separate TACs for pollock fisheries are specified for the Bering Sea and Aleutian Islands subareas of the BSAI management area. The Aleutian Islands subarea includes the U.S. EEZ that is north and south of the Aleutian Islands, west of 170° W. longitude, and south of 55° N. latitude. The Bering Sea subarea includes all remaining area of the U.S. EEZ in the Bering Sea. For management purposes, the Aleutian Islands subarea is reporting area 540 and the Bering Sea subarea includes all other reporting areas (Figure 1). Hence, the pollock TAC for the Bering Sea subarea applies to all fisheries in reporting areas beginning with 51, 52 and 53. The pollock TAC for the Aleutian Islands subarea applies to fisheries in reporting area 540.

The Bering Sea Pollock stock, however, does not distinguish itself along these management boundaries. Recent but incomplete biological data suggest that the pollock population on the EBS continental shelf is different from that in the deep water area known as the Aleutian Basin. The international waters, outside the fishery management jurisdiction of either the U.S. or the U.S.S.R., approximates the center of the Aleutian Basin. Age composition data indicate that Aleutian Basin pollock are generally older, and, at any specific age, generally smaller than those found on the continental shelf. Data also indicate that pollock in the Aleutian Islands subarea are generally different from either those in the Aleutian Basin or those on the continental shelf. Genetic studies and other biological assessments are continuing to determine the stock structure of Bering Sea pollock.

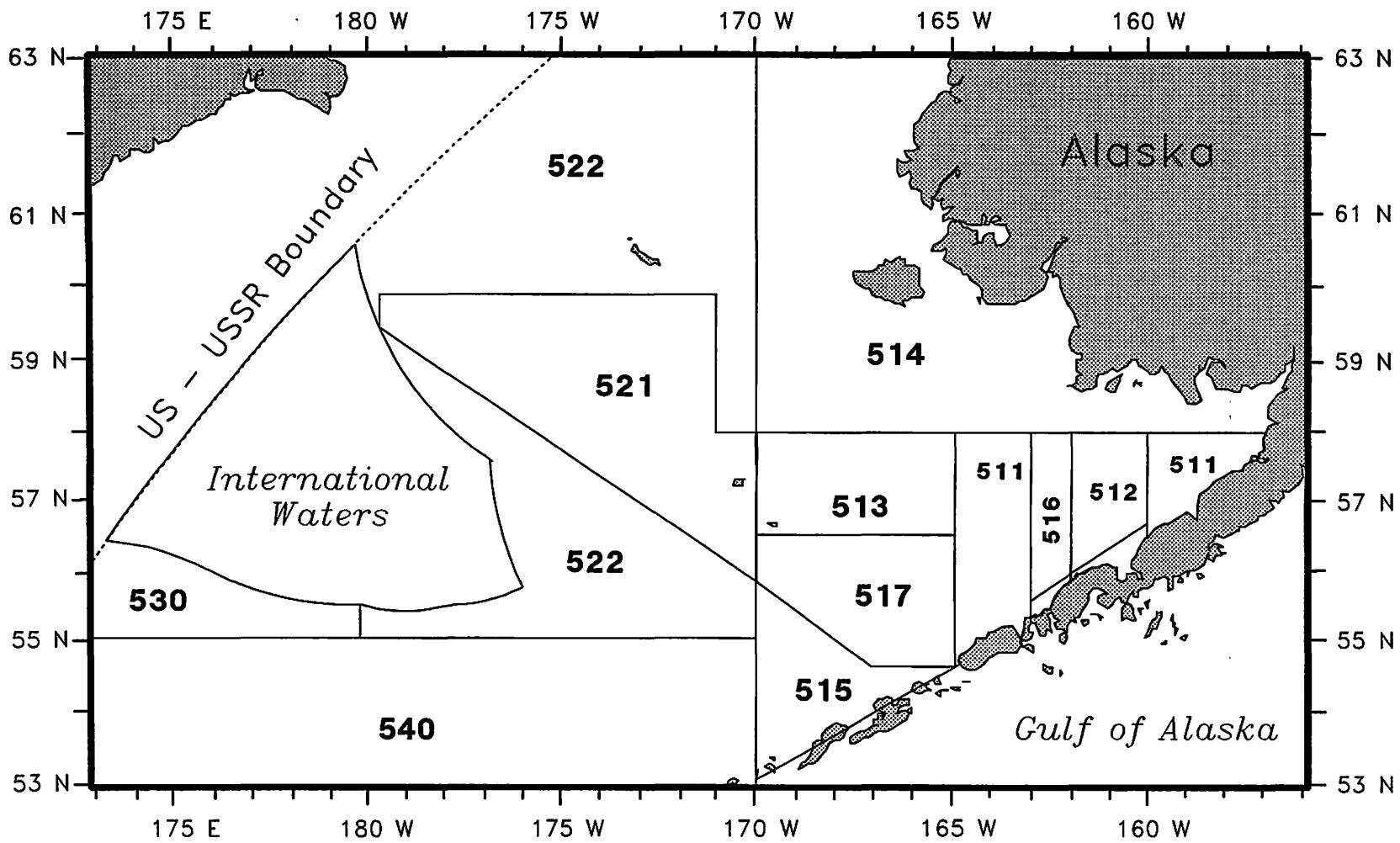


Figure 1. Regulatory and reporting areas of the Bering Sea and Aleutian Islands

The deep water of the Aleutian Basin is closest to the Alaska Peninsula in reporting area 515. The relatively flat plain of the continental shelf descends steeply down the continental slope and into the Aleutian Basin along the shelf break which extends generally in a northwest-southeast direction (roughly, the diagonal boundary of reporting areas 517 and 521). In reporting area 515, the shelf break curves sharply to the southwest toward the western Aleutian Islands. This area (515) is a principal spawning area for Aleutian Basin pollock.

Hydroacoustic surveys during the roe season in 1988 and 1989 in the vicinity of Bogoslof Island, near the center of reporting area 515, indicated an exploitable biomass of pollock of 2.4 million to 2.1 million mt. A survey was not done in 1990, but the 1989 estimate was projected to 1991 for purposes of the stock assessment and fishery evaluation report for 1991 (Council SAFE report, November, 1990). Assuming that natural mortality was the only source of loss between 1989 and 1991, the spawning stock in the Bogoslof area during the 1991 roe season was estimated to be 1.15 million mt. Preliminary results of a 1991 hydroacoustic-midwater trawl survey in the area indicate the spawning biomass to be 0.5 million mt or about half of the projected biomass.

Federal fishery scientists have been estimating the acceptable biological catch (ABC) in the Bogoslof area since 1988. Under current regulations implementing the FMP, however, pollock harvests in the Bogoslof or 515 area cannot be limited to the Bogoslof ABC because it is part of the larger Bering Sea subarea. For 1991, the Bogoslof pollock ABC was calculated to be 286,000 mt but for the continental shelf portion of the Bering Sea subarea the 1991 ABC is 1.7 million mt and the recommended TAC is 1.3 million mt. Biological surveys of the pollock biomass in the Bering Sea subarea have been limited to the EBS continental shelf, and have not included the Bogoslof pollock because they appear to be of a separate stock. Although the biomass and ABC estimates for pollock in the Bering Sea subarea are based on biological data pertinent only to the EBS continental shelf, they are applied for fishery management purposes also to area 515.

Aleutian Basin pollock are aggregated in the Bogoslof area from January through March prior to spawning and are vulnerable to intensive fishing by fisheries seeking the highly valued roe and other pollock products. In the absence of regulatory action, the TAC for roe-season pollock (441,500 mt in 1991) could be taken almost exclusively in area 515. Such concentrated pollock harvesting in the Bogoslof area could substantially exceed the ABC for this area. Although, this would not necessarily cause overfishing, as defined in the FMP, of the Aleutian Basin pollock population, it could severely threaten overfishing given the large international fishing fleet that also exploits these fish without limit in the international waters of the Bering Sea.

To prevent overharvesting of pollock in the Bogoslof area during the 1991 roe season, the Council recommended and the Secretary implemented an emergency interim rule (56 FR 5659). This action temporarily established a Bogoslof District and prescribed a catch limit in the district of 200,000 mt of pollock. The effect of this emergency rule expired on April 15, 1991. Expiration of this rule is not a problem for the remainder of the 1991 fishing year because Aleutian Basin pollock leave the Bogoslof area after spawning. The same management measures cannot be used in 1992 and future years, however, unless the FMP and its implementing regulations are amended through the normal rule-making process.

5.3 Alternatives

This assessment considers the following two alternative actions:

5.3.1 Alternative 1: No establishment of a Bogoslof District with area-specific management measures for pollock (status quo).

No amendment of the FMP and regulatory change would occur under this alternative. The entire Bering Sea subarea TAC allowance to the roe-season pollock fishery would be available on January 1 for harvest anywhere in that subarea, including the Bogoslof area. The Bering Sea subarea would close to directed fishing when the Director, Alaska Region, NMFS (Regional Director), determines that roe season allowance of pollock is harvested or on April 15, 1991, whichever comes first. Directed fishing for pollock would resume on June 1, 1991 for the pollock TAC remaining uncaught at the time.

5.3.2 Alternative 2: Establishment of a catch limit for pollock in the Bogoslof area could be accomplished in two ways. Either (1) a unique Bogoslof District could be created for which a pollock TAC, separate from the Aleutian Islands subarea and the Bering Sea subarea, would be annually specified, or (2) a pollock catch limit specific to the Bogoslof District could be established as a subdivision of the pollock TAC for the Bering Sea subarea.

The Bogoslof District under both options would be defined as new reporting area 518 which is that part of reporting area 515 that is west of 167° W. longitude (Figures 2 and 3). A new reporting area, 519, would therefore be created as that part of area 515 that is east of 167° W. longitude. Fishing for pollock in new reporting area 519 and in other reporting areas of the Bering Sea subarea would be unaffected by any closure of the Bogoslof area to fishing for pollock due to attainment of the Bogoslof pollock TAC. Fishing for other species of groundfish in the Bogoslof District also would be unaffected.

5.3.2.1 Option 1: The FMP would be amended under option 1 to define a Bogoslof District as distinct from the Bering Sea subarea for purposes of managing the pollock fishery. Annual estimation of the pollock exploitable biomass, ABC and other biological parameters would be required for the Bogoslof District separate from either the Aleutian Islands or Bering Sea subareas. The Council would annually recommend a TAC for pollock in the Bogoslof District within the optimum yield range for groundfish fisheries in the BSAI area. The Bogoslof pollock TAC would be apportioned between roe and non-roe fishing seasons as currently provided under Amendment 14 for the Bering Sea and Aleutian Islands subareas.

5.3.2.2 Option 2: Under option 2, the Bogoslof District would remain as part of the Bering Sea subarea. Annual estimation of the pollock exploitable biomass, ABC and other biological parameters would be done for the Bering Sea subarea as it is now. The Council and the Secretary would then approve and implement a Bogoslof pollock roe season catch limit that would be part of the larger roe season allowance of the Bering Sea subarea pollock TAC. Regulations affecting the commercial pollock fishery would be changed under this option to provide authority to the Regional Director to prohibit directed fishing for pollock in the Bogoslof area when he determines that the specified Bogoslof portion of the Bering Sea subarea TAC is harvested. This would make option 2 work the same as the 1991 Bogoslof emergency rule.

The practical effect on the pollock fishery under each option is likely to be the same. Both options provide for closure of the Bogoslof District to the pollock fishery during the roe season independent

of a closure in the Bering Sea subarea. Hence, the assessment of potential environmental impacts does not distinguish the options; only the alternatives.

The policy choice between Options 1 and 2 depends on the need for conservation of pollock in the Bogoslof District during the non-roe season. Aleutian Basin pollock are currently understood to leave the Bogoslof area after spawning. However, this area is not normally surveyed during the routine summer (non-roe season) survey of the EBS shelf. Hence, there are no scientific data to indicate whether pollock harvested from the Bogoslof area during the non-roe season are primarily of the EBS shelf stock or the Aleutian Basin stock. Option 2 would be a rational choice if the latter is true, and option 1 if the former is true. Pollock catch data in 1989 and 1990 indicate substantial catches of pollock from reporting area 515. In 1989, 82 percent of the pollock harvested from within reporting area 515 was taken during the third and fourth quarters of the year. This proportion decreased to 27 percent during the same quarters of 1990. The extent to which these catches were made east and west of 167° W. longitude, however, is not apparent from the data.

5.4 Potential Environmental Impacts of the alternatives

Environmental impacts on the quality of the human environment are discussed below as potential socio-economic, physical, and biological impacts.

5.4.1 Socio-economic impacts. Alternative 1 would allow the groundfish fishery to focus effort on pre-spawning aggregations of pollock until the entire roe season allowance is harvested. Fishing costs are reduced when the target species is aggregated because the catch per unit of effort is increased relative to fishing on a dispersed school of fish. Production of pollock roe, the highest valued pollock product, will be constrained to some extent by the roe-stripping limitations of Amendment 14 to the FMP which was implemented on January 1, 1991 (56 FR 492, Jan. 7, 1991).

Under Alternative 2, roe production will be as constrained by Amendment 14 as it is under Alternative 1, however, other direct and indirect costs will likely be imposed on the fishery under Alternative 2. This is based on an economic assumption that imposing a requirement on a profit-maximizing fishing operation to change its behavior will increase its costs or reduce its revenues or both. If this assumption were incorrect, then the fishing operation already would be behaving in the desired manner and there would be no need to impose a requirement to change. The magnitude and distribution of costs imposed by a new regulatory requirement will vary directly with the severity of the restriction.

Current data on the operating costs of fishing vessels are insufficient to quantitatively estimate the magnitude and distribution of direct costs to the pollock fishery and indirect costs to other fisheries of implementing Alternative 2. Instead, some potential costs are qualitatively described.

Some cost to fishing operations would occur from being prevented from fishing the most productive schools of pollock in the Bogoslof area by its closure to the pollock fishery when the Bogoslof District pollock TAC is attained. Such a closure would force pollock operations to fish potentially less aggregated or less desirable schools of pollock outside the Bogoslof District. This would change the distribution of gross revenues due to increased crowding in areas remaining open to pollock fishing. Other indirect costs could be imposed on fisheries for other species if a redistribution of fishing effort under Alternative 2 causes an increase in the bycatch of species such as salmon and herring. Because the fishery is not expected to forgo any of its roe-season allocation of the pollock TAC under Alternative 2, the only potential immediate cost may result from reduced catch per unit of effort in

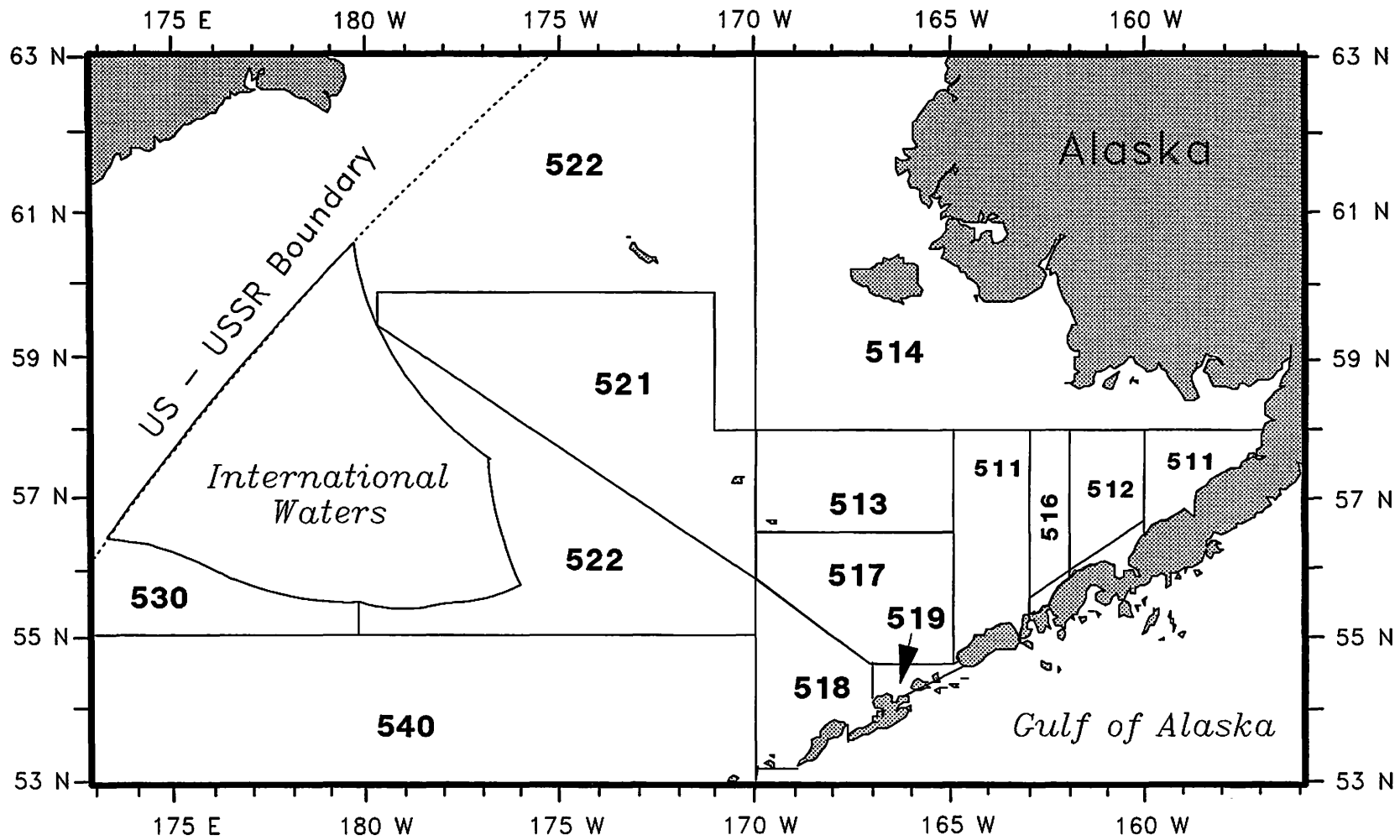


Figure 2. Proposed Bogoslof District (Area 518)

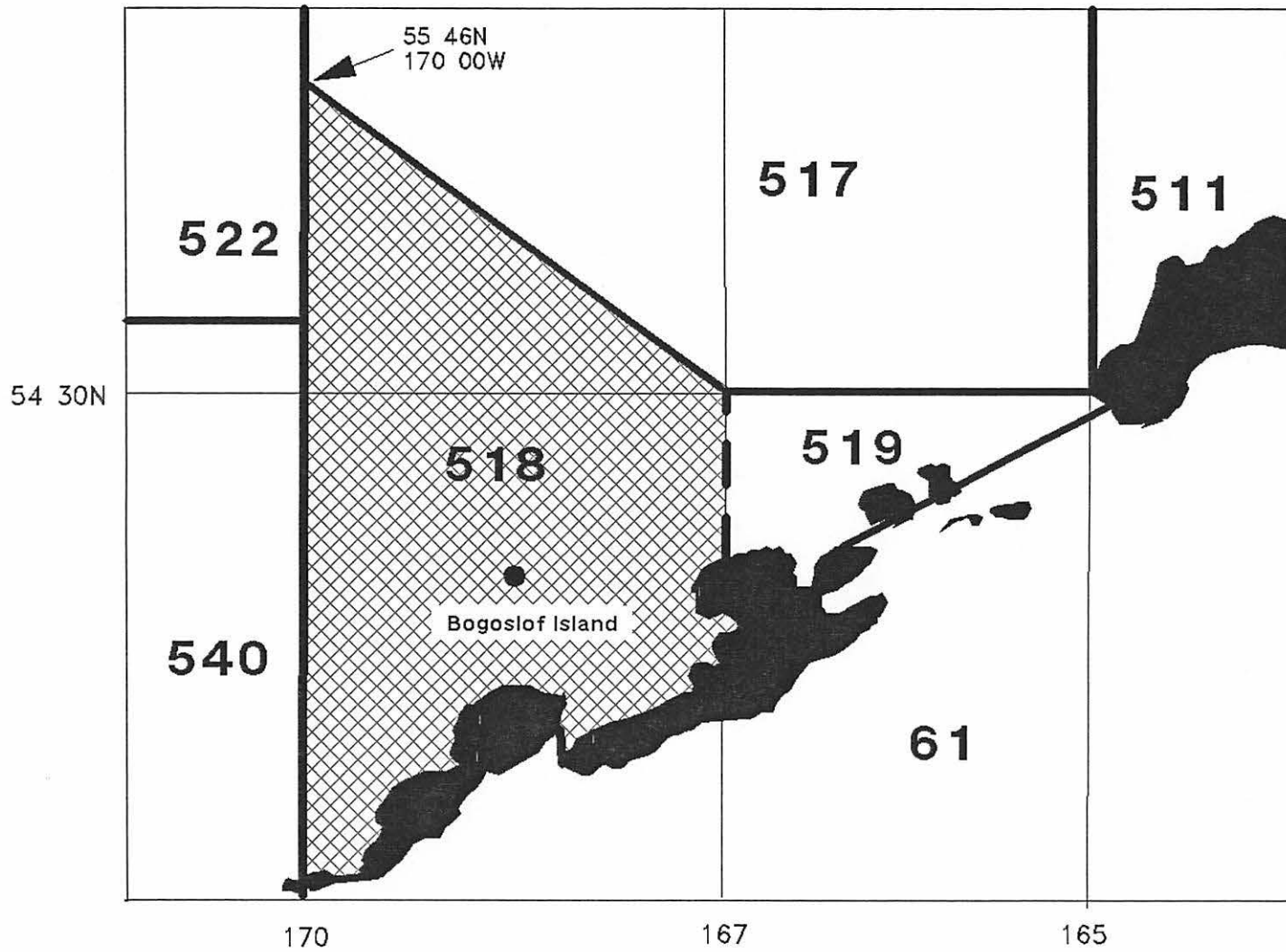


Figure 3. Bogoslof District (518)

areas outside of the Bogoslof District. These costs are expected to be minimal and likely will not result in a measurable increase in the price of pollock products for consumers.

Potentially increased operating costs, however, may be balanced in the long term by increased future pollock harvests resulting from conservation of pollock under Alternative 2. This potential benefit also cannot be estimated with available information. Any conservation benefit to the pollock fishery, however, will likely be dissipated by increased fishing capacity in the absence of effective control on its growth. In addition, the realization of a conservation benefit is somewhat dependent on collateral controls on fishing in the international waters of the Bering Sea to which the Bogoslof spawning stock is assumed to return after spawning.

5.4.2 Physical impacts. No physical impacts on the environment are anticipated under either alternative. The operation of trawl gear in the pollock fishery during the roe season is such that the gear rarely comes in contact with the sea bottom. Neither alternative would affect the amount of pollock that would be harvested during the non-roe season because this amount is determined under Amendment 14. Pollock fishing in the Bogoslof District later in the year with bottom-tending trawl gear is not expected because of insignificant amounts of pollock in the area after the roe-season spawning aggregations leave in the spring.

5.4.3 Biological impacts: Alternative 1. Alternative 1 would allow up to the entire roe-season allowance (441,500 mt in 1991) to be harvested from the pollock gathered to spawn in the vicinity of Bogoslof Island. This could exceed the ABC for pollock from this stock and could reduce the biomass to a level that results in overfishing. The ABC for this stock may already be exceeded by the large, uncontrolled fishery in international waters of the Bering Sea. Uncertainty over the size of the Aleutian Basin pollock population prevents a precise determination of the amount of fishing mortality that would produce overfishing.

Pollock harvests from the international waters of the Bering Sea are currently estimated to be about 1.5 million mt per year. For this amount of fishing mortality to be an acceptable biological catch, a biomass of over 5 million mt of pollock would be required. Additional pollock harvests in the deep-water areas of the respective EEZs of the U.S. and U.S.S.R. would further increase the biomass necessary to support the total fishing mortality at a sustainable level.

Although no single survey has covered the entire Aleutian Basin, the substantial portions of the deep water surveyed have produced estimated pollock biomass levels of 3.1 million mt in 1987 (based on survey of U.S.S.R. and international deep water areas), 2.4 million mt in 1988, and 2.1 million mt in 1989 (based on survey of U.S. and international deep water areas). If these biomass estimates represent the majority of the pollock biomass present in the Aleutian Basin at any time, the current total fishing mortality of the Aleutian Basin pollock stock may be excessive.

5.4.4 Biological impacts: Alternative 2. Alternative 2 would constrain the harvest of Aleutian Basin pollock in the U.S. deep water area near Bogoslof Island during the roe season. This would decrease the risk of overfishing the Aleutian Basin stock. Reducing the risk of overfishing will assist in maintaining future biomass levels (and catch levels) of Aleutian Basin pollock higher than they would be in the presence of overfishing. The roe season is the critical period for reducing the risk of overfishing since Aleutian Basin pollock appear to disperse out of the Bogoslof Area after the roe season and, as a result, cease to be targeted by the pollock fishery in the U.S. EEZ.

Management under Alternative 2 will not necessarily assure that overfishing Aleutian Basin pollock will be prevented. The pollock spawning in the Bogoslof area appear to be primarily the result of

large year-classes on the EBS shelf and possibly the Siberian shelf populations. Available data indicate that most of the fish harvested in the Aleutian Basin and the Bogoslof area are from the strong 1972 and 1978 year-classes, although weaker year-classes also are present. Preliminary results suggest that some pollock are recruiting to the Basin from the 1982 year-class which is the most recent strong year class. Therefore, the Aleutian Basin appears to be an "overflow area" for strong recruitment in the shelf populations and the abundance of pollock in the Basin likely undergoes large long-term shifts in abundance. With the current unregulated fishery in the international waters and a lack of sustained recruitment to the Aleutian Basin population, it is unlikely that pollock catch limits in the Bogoslof District by themselves will preserve the spawning stock in this area or the international waters.

5.4.5 Effects to Marine Mammals

Substantial declines in abundance of North Pacific Ocean Steller sea lion (Eumetopias jubatus) and harbor seal (Phoca vitulina) populations have been observed over the last two decades. Presently, the cause or causes of these observed population reductions are unknown. NMFS permanently listed the Steller sea lion as a threatened species on November 26, 1990, and established emergency protective regulations to aid the species's recovery (55 FR 49204).

Reduced food availability is considered to be a possible factor in the Steller sea lion and harbor seal declines. Pollock appears to be an important prey item for both of these pinniped species. Large fishery harvests of pollock, particularly over small areas and time periods, may decrease the amount of food available to Steller sea lions and harbor seals. However, the actual effects of pollock fishing on the foraging success of these species are unknown.

Because neither alternative, of itself, will change pollock fishing distribution or harvest levels, adoption of either alternative is not likely to have any effect on Steller sea lions or harbor seals. However, alternative 2 will establish a framework for improved management of pollock roe fisheries around Bogoslof Island, and therefore, may benefit Steller sea lions and harbor seals.

Commercial pollock fisheries are not expected to adversely affect any of the cetacean species present within the Bering Sea. Thus, neither of the alternatives under consideration is anticipated to have any effect on cetaceans.

Endangered Species Act

On April 19, 1991, the NMFS completed formal Section 7 Consultation on the Bering Sea and Aleutian Islands FMP and its fishery. The biological opinion issued for that consultation concluded that the FMP and fishery are not likely to jeopardize the continued existence and recovery of any endangered or threatened species under the jurisdiction of the NMFS.

Adoption of either of the alternatives will not affect listed species in a way that was not already considered in the subject biological opinion. Implementation of Alternative 2, with subsequent limitation of pollock harvest around Bogoslof, may benefit Steller sea lions.

6.0 CHANGE FISHING GEAR RESTRICTIONS IN THE GULF OF ALASKA AND BERING SEA/ALEUTIAN ISLANDS.

6.1 Description of the problem and need for Action.

Amendments 16 and 21 to the Groundfish Fishery Management Plans (FMPs) for the Bering Sea/Aleutian Islands (BSAI) and Gulf of Alaska (GOA) established Federal criteria for groundfish pots that overlap with the State of Alaska's definition for king crab pots. This has caused confusion over the ability of enforcement personnel to prohibit the use of king crab pots that also meet the Federal criteria for groundfish pots during closed seasons for king crab in the EEZ. The criteria are also inconsistent with the State's regulations which specifically prohibit the use of king and Tanner crab pots for taking groundfish.

Action is required to clearly differentiate between groundfish pots that may be used in the Federally managed groundfish fishery, and crab pots used in fisheries managed by the State of Alaska, as well as to achieve consistency between State and Federal regulations for groundfish pots.

Current Federal groundfish regulations state that:

Each pot used to fish for groundfish must be equipped with rigid tunnel openings that are no wider than 9 inches and no higher than 9 inches, or soft tunnel openings with dimensions that are no wider than 9 inches. (USC 672.24(b)(2) and USC 675.24(b)(2))

while the relevant Alaska Codes are:

5AAC 28.050. GEAR FOR GROUND FISH.

(a)(1) King and Tanner crab pots as defined in 5AAC 34.050(f) and 5AAC 35.050(e) may not be used to take groundfish;

5AAC 34.050. GEAR FOR KING CRAB.

(f) A king crab pot is a pot with rigid tunnel eye openings which are a minimum of five inches in one dimension and tunnel eye opening perimeters which individually are larger than 30 inches, or a pot which tapers inward from its base to a top consisting of one horizontal opening of any size.

5AAC 35.050. GEAR FOR TANNER CRAB.

(e) A Tanner crab pot is a pot with rigid tunnel eye openings which individually are a maximum of five inches in one dimension and tunnel eye opening perimeters which individually are larger than 30 inches, or a pot which tapers inward from its base to a top consisting of one horizontal opening of any size.

From the regulations, it is apparent that a pot cannot meet the Federal criteria for a groundfish pot as well as the State definition of a Tanner crab pot. That is, if the tunnel eye opening is a maximum of 5 inches in one dimension (State definition) and 9 inches in the other dimension (Federal criterion), then it cannot have a tunnel eye opening perimeter greater than 30 inches. Amending the Federal regulations to limit groundfish pot tunnel opening perimeters to no more than 30 inches would clearly differentiate between groundfish and king crab pots, as would amending the State definition of king crab pots to require tunnel eye perimeter openings of greater than 36 inches.

6.2 The Alternatives.

6.2.1 Alternative 1: Do nothing - maintain the status quo.

Adoption of this alternative would maintain current pot gear criteria in the two groundfish FMPs and preserve the overlap with the State of Alaska's definition of king crab pots.

6.2.2 Alternative 2: Amend the Federal regulations to require that groundfish pot tunnel opening perimeters individually measure no more than 30 inches.

Adoption of this alternative would differentiate between pots that are used in the federally-managed groundfish fishery and king crab pots as defined by Alaska Code. A revised regulation might read:

Each pot used to fish for groundfish must be equipped with rigid tunnel openings that are no wider than 9 inches, or soft tunnel openings with diameter no greater than 9 inches when opened as a circle, except that the individual tunnel opening perimeters may not measure greater than 30 inches.

Such a definition would allow some flexibility in determining the shape of groundfish pot tunnel openings while preserving the distinction from king crab pots.

6.2.3 Alternative 3: Request that the State of Alaska amend its regulations to require king crab pot individual tunnel eye opening perimeters to be greater than 36 inches.

Adoption of this alternative would not directly eliminate the overlap in criteria for groundfish and king crab pots nor would it achieve consistency between State and Federal groundfish regulations. However, it would serve notice to the State that the Council considers the best solution to the problem to be a change in State regulations.

6.2.4 Alternative 4: Institute a registration system whereby pots would be registered as fish or crab pots and identified as such with a metallic tag.

Such a system would adequately differentiate a groundfish pot from a king crab pot. However, to the extent that some fishermen may use their pots to fish for both target species at different times, this would require them to maintain separate pots or to retag their pots during the year.

6.3 Biological and environmental impacts of the alternatives.

Differences in biological and environmental impacts among the alternatives are not likely to be detectable in the near term. As a practical matter, there is not much opportunity to legally fish pots that meet the definitions for both groundfish and king crab pots (Alternative 1). Any groundfish pot fisherman delivering fish in Alaska may not use crab pots to fish for groundfish. In addition, king crab pots may not be left in the water in a fishing condition when the king crab season is closed. Thus, the only fishermen legally fishing groundfish pots that also meet the definition of king crab pots would be those fishing for groundfish outside state waters during an open king crab season and landing the fish outside the state. Such occurrences have not been identified in the available data. De facto industry practice has, apparently, most closely approximated Alternative 2.

Data are not available to evaluate definitively the difference in bycatch rates of crab and halibut between pots with eye opening perimeters of 30 inches (Alternative 2) and those with 36 inches

(Alternative 3). A large number of sample observations would likely be required to identify a statistically significant difference. In a study to evaluate the effectiveness of modified crab pots for increasing cod catch and decreasing halibut and crab bycatch, Carlile et al found that increasing the number of dividers in the tunnel eye hole (decreasing individual eye hole perimeters) resulted in an apparent (but not statistically significant) increase in cod catch and decrease in halibut bycatch. (Not enough crab were caught to develop statistics on crab bycatch.) Comparing treatments without fish retention devices, the study showed that tunnel eye openings of 8" X 7" caught and retained more cod than tunnel eye openings of 8" X 11.5", 8" X 18" or 8" X 36", and had the lowest halibut bycatch. To the extent that smaller tunnel eye openings result in lower bycatches of halibut (and, possibly, crab), then Alternative 2 would seem preferable in terms of biological impact.

Alternative 4, which would require registration and tagging of pots, would result in no foreseeable biological or economic impacts.

6.4 Socioeconomic impacts of the alternatives.

Alternative 1, the status quo, would involve no change in industry costs and returns or in management costs. Any inefficiencies and social dysfunctions attributable to confusion over enforcement authority resulting from overlapping definitions for king crab and groundfish pots, or inconsistency between State and Federal groundfish regulations, would persist. Adopting Alternative 2 or 3 would eliminate these inefficiencies and social dysfunctions, and could involve small changes in industry costs and returns.

If all groundfish pots had been modified to have 9" X 9" openings (36" perimeters), then adopting Alternative 2 would require further modification and an increase in industry costs. In amendments 21 and 16 to the GOA/BSAI FMPs, the costs of modifying pots by inserting three dividers into a rigid 9" X 36" opening to create four 9" X 9" openings, was estimated to be \$525 per vessel, principally labor costs. Assuming that pots must be completely remodified and that to insert two additional dividers so as to create six 9" X 6" openings would increase costs by two-thirds, then costs would increase by \$350 to a total of \$875 per vessel. As of February 26, 1990, there were 61 vessels licensed to use groundfish pots (personal communication, Ron Berg, NMFS) indicating that the total costs of pot modification might be as high as \$53,375. To the extent that the smaller openings may result in higher cod catch rates (Carlile, et al), there could be additional industry revenues to offset these costs. However, to the extent that industry practice already approximates compliance with Alternative 2, there would be smaller increases in industry costs and revenues. As noted in the discussion of biological impacts above, there is not much opportunity to legally fish pots that meet the definitions for both groundfish and king crab pots, and present industry practice is believed to be close to Alternative 2.

Adopting Alternative 3 would involve no increase in costs to the groundfish industry. To the extent that the king crab industry employs traps with tunnel eye openings less than 36", there could be a cost of trap modification to the king crab fleet if the State were to change its regulations. If, as noted in Carlile, et al, a "standard" king crab pot has tunnel eye openings of 9" X 36", then adopting Alternative 3 would not require gear modification by the king crab industry. Assuming the State acted on the Council's recommendation, then the economic inefficiencies and social dysfunctions occasioned by the status quo would be ameliorated. However, there would be some economic cost to the State of initiating and implementing a regulatory change. Depending on the attitudes and perceptions of the State's managers as to the source of the problem of overlap in Federal groundfish pot criteria and State king crab pot definition, the recommendation implicit in Alternative 3 could

be the cause of social dysfunction in the Federal/State management relationships and loss of efficiency in subsequent cooperative management endeavors.

Alternative 4, requiring registration and tagging of pots has the potential to result in considerable administrative burdens. The March 1991 Westward Region Shellfish Report (Alaska Department of Fish and Game) estimates the number of king crab pots used in the Bristol Bay area at over 68,000. The logistics of registering and tagging this number of pots, in addition to several thousand groundfish pots, would be considerable. Administrative costs to federal and state agencies, as well as potential costs to the fleet, are not quantifiable at this time but would likely be significant. The extent of the problem being addressed by this amendment would probably not justify such costs in light of the other alternatives available.

6.5 Reference

Carlile, David, Tom Dinnocenzo and Leslie Watson. "An Evaluation of the Effectiveness of Modified Crab Pots for Increasing Catch of Pacific Cod and Decreasing Catches of Halibut and Crab." Contract report prepared for Alaska Fisheries Development Foundation. Alaska Department of Fish and Game, Juneau. March, 1991.

7.0 EFFECTS ON ENDANGERED SPECIES AND ON THE ALASKA COASTAL ZONE

None of the alternatives would constitute actions that "may affect" endangered species or their habitat within the meaning of the regulations implementing Section 7 of the Endangered Species Act of 1973. Thus, consultation procedures under Section 7 on the final actions and their alternatives will not be necessary.

Also, for the reasons discussed above, each of the alternatives would be conducted in a manner consistent, to the maximum extent practicable, with the Alaska Coastal Management Program within the meaning of Section 307(c)(1) of the Coastal Zone Management Act of 1972 and its implementing regulations.

8.0 OTHER EXECUTIVE ORDER 12291 REQUIREMENTS

Executive Order 12291 requires that the following three issues be considered:

- (a) Will the amendment have an annual effect on the economy of \$100 million or more?
- (b) Will the amendment lead to an increase in the costs or prices for consumers, individual industries, Federal, State, or local government agencies or geographic regions?
- (c) Will the amendment have significant adverse effects on competition, employment, investment, productivity, innovation, or on the ability of U.S. based enterprises to compete with foreign enterprises in domestic or export markets?

Regulations do impose costs and cause redistribution of costs and benefits. If the proposed regulations are implemented to the extent anticipated, these costs are not expected to significant relative to total operational costs.

The amendment will not have significant adverse effects on competition, employment, investment, productivity, innovation, or on the ability of U.S. based enterprises to compete with foreign enterprises in domestic or export markets.

The amendment should not lead to a substantial increase in the price paid by consumers, local governments, or geographic regions since no significant quantity changes are expected in the groundfish markets. Where more enforcement and management effort are required, costs to state and federal fishery management agencies will increase.

This amendment should not have an annual effect of \$100 million, since although the total value of the domestic catch of all groundfish species is over \$100 million, this amendment is not expected to substantially alter the amount or distribution of this catch.

9.0 IMPACT OF THE AMENDMENTS RELATIVE TO THE REGULATORY FLEXIBILITY ACT

The Regulatory Flexibility Act (RFA) requires that impacts of regulatory measures imposed on small entities (i.e., small businesses, small organizations, and small governmental jurisdictions with limited resources) be examined to determine whether a substantial number of such small entities will be significantly impacted by the measures. Fishing vessels are considered to be small businesses. A total of 1,348 vessels may fish for groundfish off Alaska in 1990, based on Federal groundfish permits issued by NMFS through March 29, 1990. While these numbers of vessels are considered substantial, regulatory measures will only affect a smaller proportion of the fleet.

10.0 FINDINGS OF NO SIGNIFICANT IMPACT

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

Assistant Administrator for Fisheries

Date

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"REQUEST FOR OMB REVIEW"

OMB Number 0648-0206
Federal Fisheries Permits, Alaska Region
Supporting Statement For Information Collection
Proposed Under Amendments to the
Alaskan Groundfish Fishery Management Plans

Authority to Issue Experimental Fishing Permits
For the Commercial Groundfish Fisheries Off Alaska

This statement supports regulations implementing Amendment 22 to the Fishery Management Plan (FMP) for Groundfish of the Gulf of Alaska (GOA) and Amendment 17 to the FMP for the Groundfish Fishery of the Bering Sea and Aleutian Islands Area (BSAI). These regulations would authorize issuance of permits to conduct fishery experiments for purposes of obtaining needed information supporting the commercial groundfish fisheries off Alaska. Approval of these regulations will require revision of OMB #0648-0206, Federal Fisheries Permits, Alaska Region. A copy of the appropriate proposed regulations authorizing the information collections is attached to the supporting statement.

A. Justification

1. Explain the circumstances that make the collection of information necessary:

Amendments to both the GOA and BSAI FMPs are proposed that would authorize the Regional Director to issue experimental fishing permits on a case-by-case basis after consulting with the Council.

Experimental fishing could provide information not otherwise available through research or commercial fishing operations. Results may be used to supplement information obtained through research. Fishing mortality resulting from experimental fishing would be outside of any TAC specification. Such additional mortality would be authorized only if overfishing as defined in the GOA and BSAI FMPs would not occur. Experimental fishing permits would expire at the end of a calendar year.

In addition to other information required in the proposed regulations, an application for an experimental fishing permit must include the following written information when it is submitted to the Regional Director:

1. A statement of the purpose and goal of the experiment, including justification explaining why issuance of experimental fishing permit is warranted;

2. Technical details about the experiment, including the area and timing of the experiment, vessel and gear to be used, experimental design, staffing, sampling procedures, the data and samples to be collected, analysis of the data and samples, provision for public release of all obtained information by means of interim and/or final reports;
3. A description of the species to be harvested, amount of such harvest necessary to conduct the experiment, and arrangement for disposition of all species taken;
4. The willingness of the applicant to carry observers, if required by the Regional Director, and a description of accommodations and work space for the observer(s); and
5. Details for all coordinating parties engaged in the experiment and signatures of all representatives of all principal parties.

Proposed procedures for implementing this measure address the following elements: preliminary screening of permit applications, Council consultation, notifying the applicant, and provisions for permit terms and conditions. These elements are discussed as follows:

Preliminary screening -- Under regulations proposed to implement this measure, the Regional Director, in consultation with the Alaska Fishery Science Center (AFSC), would preliminarily screen any application for an experimental fishing permit to determine whether its experimental design as described in the application could reasonably be expected to provide information as intended should the experimental fishing permit be issued. If the Regional Director determines that the experimental design is inadequate for obtaining intended information, the application would be returned to the submitter with reasons why the experimental design was determined to be inadequate. The Council would be notified of the Regional Director's determination. If, however, the Regional Director determines that the experimental design is adequate, the Regional Director would commence consultation with the Council.

Council consultation -- If the Regional Director finds the application is complete and warrants further consideration, he will initiate consultation with the Council concerning the permit application by forwarding the application to the Council. The Council's Executive Director shall notify the applicant of a meeting, if any, at which the Council will consider the application and invite the applicant to appear in support of the application if the applicant desires. If the Regional Director initiates consultation with the Council, the Secretary of

Commerce will publish a notice of receipt of the application in the Federal Register with a brief description of the proposal.

The Regional Director shall notify the applicant in writing of the decision to grant or deny the experimental fishing permit as soon as practicable after consulting with the Council, and, if denied, the reasons for the denial. In the event a permit is denied, on the basis of incomplete information or design flaws, after preliminary screening or after consultation with the Council, the applicant will be provided an opportunity to resubmit the application. If, however, a permit is denied because experimental fishing would detrimentally affect fish stocks, have economic allocation as its sole purpose, be inconsistent with the management objectives of the FMP, or create significant enforcement problems, the decision of the Regional Director will be the final action of the agency.

2. Indicate how, by whom, and for what purpose the information is to be used and the consequence to the Federal program or policy activities if the collection of information was not conducted.

Private sectors of the fishing industry could use the information obtained from experimental fishing programs in a number of ways. For example, changes to traditional gear designs might be developed that would reduce incidental catch rate or mortality rates of fish species that have no economic value and which must be discarded at sea. Often, participants in the fishing industry are not inclined to utilize non-proven gear designs during open fishing seasons, because they are economically forced to catch as much fish as possible before available quotas are reached. By being able to experiment with new gear designs after a season closes, participants can gain information without economically losses otherwise caused by foregone harvests.

Another example involves exploration of potential fishing grounds after a fishery closure to determine if exploitable fish biomass exist outside of standard survey areas. These explorations also may provide information on expected bycatch rates of minor stock components in mixed stock fisheries. As in the above example, participants can not economically afford to explore new grounds during times when harvest quotas are rapidly being reached on traditional or proven fishing grounds.

Consequences to Federal fishery management, should Experimental Fishing Permits not be authorized, would be limited to greater pressure on NMFS to obtain information on behalf of the industry. Limited fiscal resources dictate that any studies conducted by NMFS be directed at priority projects only. Unless NMFS were to select certain studies requested by the fishing industry as being

high priority, NMFS would decline to conduct the studies and information needed by the industry would not be obtained.

3. Describe any consideration of the use of improved technology to reduce burden and any technical or legal obstacles to reducing burden.

Regulations are proposed to require only that information which is necessary in determining whether the Experimental Fishing Permit should be issued, and also which is necessary to monitor the progress of the experimental fishery. NMFS anticipates that applicants for Experimental Fishing Permits would utilize word processors, etc, when providing information in their applications, although NMFS would accept any application as long as it is legible.

4 and 5. Describe efforts to identify duplication, and show specifically why any similar information already available cannot be used or modified for use for the purpose(s) described in 2.

Participants who obtain information through fishing experiments, as authorized by Experimental Fishing Permits, will be required to release all information to the public, usually through the use of interim and final reports. By doing so, other interested parties in the fishing industry could benefit by the information. If so, then such interested parties might not have a need to duplicate the fishing experiments themselves, depending instead on the information already obtained. They would, therefore, not duplicate efforts already expended by those who initially received an Experimental Fishing Permit. Upon request, NMFS will disseminate information obtained from the experiment when it becomes available.

In addition, NMFS routinely disseminates all information that is obtained through its own investigations. Duplication would be avoided, therefore, whenever other interested parties would be able to make use of information obtained by NMFS rather than conducting its own fishing experiments.

6. If the collection of information involves small businesses or other small entities, describe the methods used to minimize burden.

As discussed under #3, above, regulations are proposed that would require only that information necessary for the Regional Director to determine if the Experimental Fishing Permit should be issued, and also which is necessary to monitor the progress of the experimental fishery.

7. Describe the consequences to Federal program or policy activities if the collection were conducted less frequently.

Experimental Fishing Permits will be issued on a fishing year basis, which presently is a calendar year. They will expire at the end of that year. This expiration requirement is necessary to avoid situations where information obtained from the fishing experiments might not be made available for several years, thereby denying the fishing industry information obtained from the experiment. Permit applications, therefore, would be required each year. NMFS anticipates that any Experimental Fishing Permit that is issued will be conditioned such that a progress or final report will be required within a specified time at the end of the year for which the permit is issued.

8. Explain any special circumstances that require the collection to be conducted in a manner inconsistent with the guidelines in 5 CFR 1320.6.

No special circumstances exist that require the information collection to be conducted in a manner inconsistent with the 5 CFR 1320.6 guidelines.

9. Describe efforts to consult with persons outside the agency to obtain their views on the availability of data, frequency of collection, the clarity of instructions and recordkeeping, disclosure, or reporting format (if any), and on the data elements to be recorded, disclosed, or reported.

Proposed amendments to the GOA and BSAI groundfish FMPs, providing authority to the Regional Director to issue Experimental Fishing Permits was presented to the North Pacific Fishery Management Council, Advisory Panel, and Scientific and Statistical Committee during the Council's April 1991 meeting and during the Council's June/August meeting. Because authority for issuing Experimental Fishing Permits already exists for NMFS's Northwest Region in Seattle, the effectiveness of that program was reviewed. Many of the provisions of that program have been proposed in regulations that would implement this program.

10. Describe any assurance of confidentiality provided to respondents and the basis for the assurance in statute, regulation, or agency policy.

Because the information collected is from commercial operations, the Privacy Act does not apply. The information collected is not confidential under section 303(d) of the Magnuson Act (16 U.S.C. 1801 et seq), because it is not fishery information, which otherwise would be confidential under NOAA directive 88-30. That directive sets forth procedures to protect confidentiality of fishery statistics.

11. Collection of information of a sensitive nature

The proposed information collection reporting requirements do not require information of a sensitive nature.

12. Estimates of annualized cost to the Federal Government and to the respondents.

Annualized costs to the Federal Government -- NMFS anticipates that certain participants of the industry will be interested in conducting some type of experimental fishing and will apply for an Experimental Fishing Permit under this action. For example, roughly ten gear manufacturers are involved in gear development technology for purposes of developing, manufacturing, and selling various gear to the domestic groundfish industry. Each of them might apply annually for a permit for purposes of trying new gear designs. A second example addresses roughly 100 groundfish processors, associations, and individual fishing companies. Perhaps 10 percent of these would apply annually for a permit to conduct experimental fisheries. Perhaps about 20 permit applications may be submitted annually by these industry participants.

Certain annual costs to the Federal government are expected to implement this program. Each permit application will be reviewed preliminarily by the Regional Director and the AFSC to determine whether a permit application meets minimal standards. If a permit application passes preliminary review, it will be forwarded to the Council, which will recommend to the Regional Director whether the Experimental Permit Application should be permit should be issued.

Preliminary review of each permit application by the Regional Director and the AFSC could require up to one hour for each permit application for a total of 20 hours per year. Preliminary review probably will involve a Regional representative and an AFSC representative. If salary costs were \$50 for each permit application, including Secretarial support, about \$1,000 for 20 permit applications a year.

Final review of each permit application by the Council could require up to another two hours. Review by the Council of 20 permit applications per year could require 40 hours of time. Based on average hourly Council costs of \$1,338 per hour (Table 1), total annualized costs to the Council could be about \$54,000 a year. Total Federal annualized costs would be about \$55,000 to implement Experimental Fishing Permits.

 Table 1. Estimated daily Council meeting costs

Council Staff	\$2,175
Council members	3,730
Sound system	302
Travel, Council members	1,100
Travel, Advisory Panel	2,100
Travel, SSC	1,000
Miscellaneous	300
total	\$10,707/day
	\$ 1,338/hour

Annualized cost to the respondents -- Each applicant who applies for an Experimental Fishing Permit is considered to be a "respondent" within the meaning of the Paperwork Reduction Act. As discussed above, about 20 applicants might apply for Experimental Fishing Permits each year. Implementing regulations require a reasonable explanation about how the experiment will work, including in part a statement of the purpose and goal of the experiment, and information about the experimental design, e.g. sampling procedures, the data and samples to be collected, and analysis of the data and samples. Each applicant may spend as many as 10 hours in preparation to apply for an Experimental Fishing Permit. Total annual hours might total 200 for 20 applicants. A report of the results of the experiment will also be required. An applicant might spend as much as 2 hours to prepare and submit a report. Total annual hours might total 40 hours for 20 applicants. Time spend during a year to prepare and submit applications and to submit reports at the end of the experiment, if required is about 240 hours. Assuming an hourly wage of \$20 per hour, about \$4,800 of annualized costs might be imposed on the respondents.

13. Provide estimates of the burden of the collection of information:

The new "total annual burden" hours under OMB 0648-0206, Federal Fisheries Permits, Alaska Region, would be 966.

14. Explain reasons for changes in burden.

As discussed under Item #12, above, an additional 240 hours of reporting burden would required for Experimental Fishing Permits. This number represents an estimate of the information collection burden that would be imposed on participants in the fishing industry. The current number of "total annual burden" hours under OMB #0648-0206 is 726. The new total, therefore, is the sum of 240 + 726, or 966 hours.

15. Collections of information planned to be published for statistical use.

Information obtained from fishery experiments resulting from issuance of Experimental Fishing Permits will be made available to the public. NMFS anticipates that some of this information will be in the form of statistical data resulting from the fishing experiments.

Filename:1722.pra

Standard Form **83**
(Rev. September 1983)

Request for OMB Review

Important

Read instructions before completing form. Do not use the same SF 83 to request both an Executive Order 12291 review and approval under the Paperwork Reduction Act.

Answer all questions in Part I. If this request is for review under E.O. 12291, complete Part II and sign the regulatory certification. If this request is for approval under the Paperwork Reduction Act and 5 CFR 1320, skip Part II, complete Part III and sign the paperwork certification.

Send three copies of this form, the material to be reviewed, and for paperwork—three copies of the supporting statement, to:

Office of Information and Regulatory Affairs
Office of Management and Budget
Attention: Docket Library, Room 3201
Washington, DC 20503

PART I.—Complete This Part for All Requests.

1. Department/agency and Bureau/office originating request

DOC/NOAA/NMFS/ALASKA REGION

2. Agency code

0 6 4 8

3. Name of person who can best answer questions regarding this request

RON BERG

Telephone number

(907) 586-7230

4. Title of information collection or rulemaking

ALASKA REGION FEDERAL FISHERIES PERMIT

5. Legal authority for information collection or rule (cite United States Code, Public Law, or Executive Order)

16 USC 1801, or

6. Affected public (check all that apply)

1 Individuals or households

3 Farms

5 Federal agencies or employees

2 State or local governments

4 Businesses or other for-profit

6 Non-profit institutions

7 Small businesses or organizations

PART II.—Complete This Part Only if the Request is for OMB Review Under Executive Order 12291

7. Regulation Identifier Number (RIN)

_____, or, None assigned

8. Type of submission (check one in each category)

Classification

1 Major

2 Nonmajor

Stage of development

1 Proposed or draft

2 Final or interim final, with prior proposal

3 Final or interim final, without prior proposal

Type of review requested

1 Standard

2 Pending

3 Emergency

4 Statutory or judicial deadline

9. CFR section affected

____ CFR _____

10. Does this regulation contain reporting or recordkeeping requirements that require OMB approval under the Paperwork Reduction Act and 5 CFR 1320? Yes No

11. If a major rule, is there a regulatory impact analysis attached? Yes No

If "No," did OMB waive the analysis? Yes No

Certification for Regulatory Submissions

In submitting this request for OMB review, the authorized regulatory contact and the program official certify that the requirements of E.O. 12291 and any applicable policy directives have been complied with.

Signature of program official

Date

Signature of authorized regulatory contact

Date

12. (OMB use only)

PART III. — Complete This Part Only if the Request is for Approval of a Collection of Information Under the Paperwork Reduction Act and 5 CFR 1320.

13. Abstract—Describe needs, uses and affected public in 50 words or less. Fishermen intending to participate in any experimental fishery must obtain an Experimental Fishing Permit. Permit applications must state the purpose and goal of the experiment, and also contain other information for use by management agencies to monitor the progress of the experimental fishery.

14. Type of information collection (check only one)

Information collections not contained in rules

1 Regular submission

2 Emergency submission (certification attached)

Information collections contained in rules

3 Existing regulation (no change proposed)

6 Final or interim final without prior NPRM

4 Notice of proposed rulemaking (NPRM)

A Regular submission

5 Final, NPRM was previously published

B Emergency submission (certification attached)

7. Enter date of expected or actual Federal Register publication at this stage of rulemaking (month, day, year): _____

15. Type of review requested (check only one)

1 New collection

4 Reinstatement of a previously approved collection for which approval has expired

2 Revision of a currently approved collection

3 Extension of the expiration date of a currently approved collection without any change in the substance or in the method of collection

5 Existing collection in use without an OMB control number

16. Agency report form number(s) (include standard/optional form number(s))

22. Purpose of information collection (check as many as apply)

1 Application for benefits

2 Program evaluation

3 General purpose statistics

4 Regulatory or compliance

5 Program planning or management

6 Research

7 Audit

17. Annual reporting or disclosure burden

1 Number of respondents	20
2 Number of responses per respondent	1
3 Total annual responses (line 1 times line 2)	20
4 Hours per response	10
5 Total hours (line 3 times line 4)	200

18. Annual recordkeeping burden

1 Number of recordkeepers	0
2 Annual hours per recordkeeper	
3 Total recordkeeping hours (line 1 times line 2)	
4 Recordkeeping retention period	_____ years

23. Frequency of recordkeeping or reporting (check all that apply)

1 Recordkeeping

Reporting

2 On occasion

3 Weekly

4 Monthly

5 Quarterly

6 Semi-annually

7 Annually

8 Biennially

9 Other (describe): _____

19. Total annual burden

1 Requested (line 17-5 plus line 18-3)	926
2 In current OMB inventory	726
3 Difference (line 1 less line 2)	200
Explanation of difference	
4 Program change	0
5 Adjustment	+200

24. Respondents' obligation to comply (check the strongest obligation that applies)

1 Voluntary

2 Required to obtain or retain a benefit

3 Mandatory

20. Current (most recent) OMB control number or comment number

0648 - 0206

21. Requested expiration date

05/31/95

25. Are the respondents primarily educational agencies or institutions or is the primary purpose of the collection related to Federal education programs? Yes No

26. Does the agency use sampling to select respondents or does the agency recommend or prescribe the use of sampling or statistical analysis by respondents? Yes No

27. Regulatory authority for the information collection

50 CFR 672.6; 675.6 ; or _____ FR _____ ; or, Other (specify): _____

Paperwork Certification

In submitting this request for OMB approval, the agency head, the senior official or an authorized representative, certifies that the requirements of 5 CFR 1320, the Privacy Act, statistical standards or directives, and any other applicable information policy directives have been complied with.

Signature of program official	Date
Signature of agency head, the senior official or an authorized representative	Date

MEMORANDUM FOR: Wendell L. Willkie, II
General Counsel

FROM: William W. Fox, Jr.
Assistant Administrator for Fisheries

SUBJECT: Proposed Rule -- (1) Amendment 17 to the
Fishery Management Plan (FMP) for the
Groundfish Fishery of the Bering Sea and
Aleutian Islands Area and Amendment 22 to the
FMP for Groundfish of the Gulf of Alaska

In compliance with Departmental Organization Order 10-6, I am attaching the subject regulatory action for your review and transmittal to OMB. I have determined that the subject action complies with the procedures of E.O. 12291, the Regulatory Flexibility Act, and the Paperwork Reduction Act.

I have initially determined that this rulemaking will have a significant economic impact on a substantial number of small entities.

This regulatory action is being processed under the 95-day accelerated review schedule in accordance with the Magnuson Fishery Conservation and Management Act, as amended by Pub. L. 99-659.

Any questions regarding this regulatory action should be directed to George Darcy, National Marine Fisheries Service (301) 427-2341. Please notify him of the docket number by telephone when you have approved the regulatory action.

The FMP amendments that these regulations would implement is considered automatically approved unless disapproved in writing by the Secretary no later than day 95 (insert date).

Attachment

filename: 1722PR.WKE

Date: 10/24/91

ATTORNEY WORK PRODUCT - CLOSE HOLD

MEMORANDUM FOR: Steven Pennoyer
Director, Alaska Region

FROM: Lisa L. Lindeman *L. Lindeman*
General Counsel - Alaska

SUBJECT: Proposed Rule to Implement Amendment 17 to
the Fishery Management Plan (FMP) for the
Groundfish Fishery of the Bering Sea and
Aleutian Islands Area and Amendment 22 to the
FMP for Groundfish of the Gulf of Alaska

I have reviewed the subject rule and associated decision documents.

A Takings Implications Assessment (TIA) is attached:
[] yes [] no

No TIA was prepared: [] No effect on private property.

- [x] Exclusion because restrictions on harvest areas, seasons, fishing vessels or fishing gear are categorically excluded by the Attorney General and AGC-Admin.
- [] Covered by generic TIA.
- [] Magnuson Act proposed rule.

CC: GCF

AMENDMENT 22
REVISIONS TO THE FISHERY MANAGEMENT PLAN FOR
GROUNDFISH OF THE GULF OF ALASKA

On page 3-1, section 3.0, AREAS AND STOCKS INVOLVED, the second paragraph is amended, starting with the third sentence, to read as follows:

"... For purposes of managing sablefish and rockfish stocks, the Eastern Regulatory Area is divided into two districts: West Yakutat (140° - 147° W. longitudes) and Southeast Outside (132°40' - 140° W. longitudes and north of 54°30' N. latitude). This division is intended to protect localized sablefish and demersal shelf rockfish stocks and is necessary to prevent overexploitation in the Eastern Regulatory Area. "

On page 3-2, Figure 3.1 "Regulatory Areas of the Gulf of Alaska FMP" is revised to show the two regulatory districts of the Eastern Regulatory Area.

On page 4-20, section 4.3, CONVENTIONAL MEASURES, a new subsection is added to read as follows:

4.3.1.6 Experimental fishing permits. The Regional Director, after consulting with the Director of the Alaska Fishery Science Center, and with the Council may authorize for limited experimental purposes, the target or incidental harvest of groundfish that would otherwise be prohibited. Experimental fishing permits might be issued for fishing in areas closed to directed fishing, continued fishing with gear otherwise prohibited, or continued fishing for species for which the quota has been reached. Experimental fishing permits will be issued by means of procedures contained in regulations.

As well as other information required by regulations, each application for an experimental fishing permit must provide the following information: Experimental design, e.g. staffing and sampling procedures, the data and samples to be collected, and analysis of the data and samples, and provision for public release of all obtained information, and submission of interim and final reports.

The Regional Director may deny an experimental fishing permit for reasons contained in regulations, including a finding that:

- (i) according to the best scientific information available, the harvest to be conducted under the permit would detrimentally affect living marine resources, including marine mammals and birds, and their habitat in a significant way.; or
- (ii) Issuance of the experimental fishing permit would inequitably allocate fishing privileges among domestic fishermen or would have economic allocation as its sole purpose; or
- (iii) Activities to be conducted under the experimental fishing permit would be inconsistent with the intent of the management objectives of the FMP; or
- (iv) The applicant has failed to demonstrate a valid justification for the permit; or
- (vi) The activity proposed under the experimental fishing permit could create a significant enforcement problem; or
- (vii) The applicant failed to make available to the public information that had been obtained under a previously issued experimental fishing permit.

AMENDMENT 22
REVISIONS TO THE FISHERY MANAGEMENT PLAN FOR
GROUNDFISH OF THE GULF OF ALASKA

On page 3-1, section 3.0, AREAS AND STOCKS INVOLVED, the second paragraph is amended, starting with the third sentence, to read as follows:

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The Regional Director may deny an experimental fishing permit for reasons contained in regulations, including a finding that:

- (i) according to the best scientific information available, the harvest to be conducted under the permit would detrimentally affect living marine resources, including marine mammals and birds, and their habitat in a significant way.; or
- (ii) Issuance of the experimental fishing permit would inequitably allocate fishing privileges among domestic fishermen or would have economic allocation as its sole purpose; or
- (iii) Activities to be conducted under the experimental fishing permit would be inconsistent with the intent of the management objectives of the FMP; or
- (iv) The applicant has failed to demonstrate a valid justification for the permit; or
- (vi) The activity proposed under the experimental fishing permit could create a significant enforcement problem; or
- (vii) The applicant failed to make available to the public information that had been obtained under a previously issued experimental fishing permit.

AMENDMENT 17
REVISIONS TO THE FISHERY MANAGEMENT PLAN FOR
THE GROUND FISH FISHERY OF THE
BERING SEA AND ALEUTIANS ISLANDS AREA

On page 14-1, Section 14.2 Area, Fisheries, and Stocks Involved is amended by revising the second paragraph under paragraph A to read as follows:

The management area is divided into five fishing areas as shown in Figure 26a and described in Appendix III.

On page 14-3, Figure 26a "Fishing areas in the Bering Sea and Aleutian Islands" is revised by adding the Bogoslof District.

On page 14-7, Figure 27 "Description of Regulatory Areas and Bycatch Limitation Zones in the Bering Sea/Aleutian Islands" is retitled to read, "Description of Statistical Areas and Bycatch Limitation Zones in the Bering Sea and Aleutian Islands Management Area", and is further amended to delete area 515 and by adding areas 518 and 519.

On page 14-9, Section 14.4.3.1 General is amended to read as follows:

"Waters seaward of the State of Alaska three-mile limit, out to twelve miles surrounding (1) Round Island and the Twins and (2) Cape Peirce, are closed to fishing for groundfish from April 1 through September 30, except that a transit zone may be provided by regulations."

On page 14-18, a new subsection is added to read as follows:

14.4.11 Experimental fishing permits. The Regional Director, after consulting with the Director of the Alaska Fishery Science Center, and with the Council may authorize for limited experimental purposes, the target or incidental harvest of groundfish that would otherwise be prohibited. Experimental fishing permits might be issued for fishing in areas closed to directed fishing, continued fishing with gear otherwise prohibited, or continued fishing for species for which the quota has been reached. Experimental fishing permits will be issued by means of procedures contained in regulations.

As well as other information required by regulations, each application for an experimental fishing permit must provide the following information: Experimental design, e.g. staffing and sampling procedures, the data and samples to be collected, and analysis of the data and samples, and provision for public release of all obtained information, and submission of interim and final reports.

The Regional Director may deny an experimental fishing permit for reasons contained in regulations, including a finding that:

- (i) according to the best scientific information available, the harvest to be conducted under the permit would detrimentally affect living marine resources, including marine mammals and birds, and their habitat in a significant way.; or
- (ii) Issuance of the experimental fishing permit would inequitably allocate fishing privileges among domestic fishermen or would have economic allocation as its sole purpose; or
- (iii) Activities to be conducted under the experimental fishing permit would be inconsistent with the intent of the management objectives of the FMP; or
- (iv) The applicant has failed to demonstrate a valid justification for the permit; or

- (vi) The activity proposed under the experimental fishing permit could create a significant enforcement problem; or
- (vii) The applicant failed to make available to the public information that had been obtained under a previously issued experimental fishing permit.

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration (NOAA)

50 CFR Parts 672 and 675

[Docket No.]

RIN 0648-

Groundfish of the Gulf of Alaska, and 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: The Secretary of Commerce (Secretary) proposes regulations to implement Amendment 22 to the Fishery Management Plan (FMP) for Groundfish of the Gulf of Alaska (GOA) and Amendment 17 to the FMP for the Groundfish Fishery of the Bering Sea and Aleutian Islands Area (BSAI). These regulations are proposed to implement the following amendment measures: (1) a new management subarea in the BSAI would be established; (2) area closures would be established around walrus haulouts in the BSAI; (3) statistical area 68 in the GOA would be rescinded; and (4) the Regional Director, Alaska Region, NMFS would be authorized to issue experimental fishing permits in the GOA and/or BSAI. In addition, certain amendments to existing implementing regulations are proposed. These actions are necessary to promote management and conservation of groundfish and other living marine resources. They

are intended to further the goals and objectives contained in both FMPs that govern these fisheries.

DATE: Comments are invited until [insert date 45 days after date of filing for public inspection by the Office of the Federal Register].

ADDRESS: Comments may be sent to Dale R. Evans, Chief, Fishery Management Division, Alaska Region, National Marine Fisheries Service, P.O. Box 21668, Juneau, AK 99802. Individual copies of proposed Amendments 17 and 22 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: Ronald J. Berg (Fishery Management Biologist, NMFS), 907-586-7228.

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.

The Council annually solicits management proposals from the public and state and Federal agencies. The Council set a deadline of August 17, 1990, for receiving proposals for inclusion in Amendments 17 and 22. At its January 14-18, 1991, meeting, the Council reviewed proposals that were received. It selected for further consideration measures that would amend either or both FMPs. The Council's GOA and BSAI Plan Teams prepared draft EA/RIR/IRFAs to discuss and analyze the need for the proposals relating to each FMP under guidance of the National Environmental Policy Act of 1969, Executive Order 12291, and NOAA policy. The Council reviewed these documents at its meeting on April 23-26, 1991, and decided to send the analyses to the interested public for review. These documents are dated May 14, 1991.

At its June 24-29 and August 13-16, 1991, meetings, the Council considered the testimony and recommendations of its Advisory Panel (AP), Scientific and Statistical Committee (SSC), Plan Teams, fishing industry representatives and the general public on each amendment proposal and the EA/RIR/IRFA analysis. It then

approved the following measures for inclusion into Amendments 17 and 22 for review by the Secretary under §304(b) of the Magnuson Act:

- (1) Establishment of the Bogoslof subarea in the BSAI;
- (2) Groundfish fishing closures around walrus haulout sites in the BSAI;
- (3) Recision of Statistical Area 68 in the GOA; and
- (4) Authority for the Regional Director to issue experimental fishing permits for the GOA and/or BSAI groundfish fisheries.

In addition to the above FMP amendments, amendments to current implementing regulations are proposed as discussed below (see Additional Proposed Regulatory Changes).

A description of, and the reasons for, each measure follow:

Establishment of the Bogoslof subarea in the BSAI

For purposes of managing pollock (Theragra chalcogramma), a measure is proposed that would establish a new management subarea in the BSAI. Pollock is the most abundant groundfish species in the BSAI. The exploitable biomass (pollock aged 3 years and older) for 1991 over the continental shelf area of the Eastern Bering Sea was estimated at 6.7 million metric tons (mt). An additional 405,000 mt was estimated for the Aleutian Islands subarea. Generally, the abundance of pollock in the Eastern Bering Sea is

considered to be high due to strong year classes in 1982 and 1984 but declining due to weaker year classes recruiting to the exploitable population since 1984.

The commercial harvest of pollock also dominates that of all other groundfish species. In 1990, about 1.4 million mt of pollock were caught in the BSAI management area, which amounted to about 77 percent of the total groundfish catch by United States fishermen in this area. This harvest was almost entirely processed by U.S. at-sea or shore-based processors. Common products made from pollock include frozen blocks, fillets, surimi, meal and roe. Pollock roe has the highest value, per mt. It is harvested from pre-spawning aggregations of pollock during the roe season from January through mid-April.

The BSAI FMP provides authority to limit the amount of the total allowable catch (TAC) of pollock that is taken during the roe season (January 1 through April 15). For the 1991 fishing year, 441,500 mt, or 34 percent of the 1991 pollock TAC of 1.3 million mt for the Bering Sea subarea, was allocated to the roe season.

Separate TACs for pollock fisheries are specified for the Bering Sea and Aleutian Islands subareas of the BSAI management area. The Aleutian Islands subarea includes the U.S. EEZ that is north and south of the Aleutian Islands, west of 170° W. longitude, and south of 55° N. latitude. The Bering Sea subarea includes all

remaining areas of the U.S. EEZ in the Bering Sea. For management purposes, the Aleutian Islands subarea is reporting area 540 and the Bering Sea subarea includes all other reporting areas. Hence, the pollock TAC for the Bering Sea subarea applies to all fisheries in reporting areas beginning with 51, 52 and 53. The pollock TAC for the Aleutian Islands subarea applies to fisheries in reporting area 540.

The Bering Sea pollock stock, however, is not distinguishable along these reporting area boundaries. Recent biological data, however, suggest that the pollock population on the Eastern Bering Sea continental shelf is different from that in the deep water area known as the Aleutian Basin. The international waters, outside the fishery management jurisdiction of either the U.S. or the Union of Soviet Socialist Republics (commonly referred to as the "Donut Hole"), approximates the center of the Aleutian Basin. Age composition data indicate that Aleutian Basin pollock are generally older, and, at any specific age, generally smaller, than those found on the continental shelf. Data also indicate that pollock in the Aleutian Islands subarea are generally different from either those in the Aleutian Basin or those on the continental shelf. Genetic studies and other biological assessments are continuing to determine the stock structure of Bering Sea pollock.

The deep water of the Aleutian Basin is closest to the Alaska Peninsula in statistical area 515. The relatively flat plain of

the continental shelf descends steeply down the continental slope and into the Aleutian Basin along the shelf break which extends generally in a northwest-southeast direction (roughly, the diagonal boundary of statistical areas 517 and 521). In reporting area 515, the shelf break curves sharply to the southwest toward the western Aleutian Islands. This area is a principal spawning area for Aleutian Basin pollock.

Pollock harvests in existing Statistical Area 515 currently are not managed under a separate ABC, because such harvests are considered as part of the ABC specified for the larger Bering Sea subarea. For 1991, the Bogoslof pollock ABC was calculated to be 286,000 mt, but for the continental shelf portion of the Bering Sea subarea, the 1991 ABC was 1.7 million mt. The TAC for the entire Bering Sea subarea was established at 1.3 million mt.

Biological surveys of the pollock biomass in the Bering Sea subarea have been limited to the Eastern Bering Sea continental shelf, and have not included the Bogoslof pollock because they appear to be of a separate stock. Although the biomass and ABC estimates for pollock in the Bering Sea subarea are based on biological data pertinent only to the Eastern Bering Sea continental shelf, they are applied for fishery management purposes also to area 515.

Aleutian Basin pollock are aggregated in the Bogoslof area from January through March prior to spawning and are vulnerable to intensive fishing by fisheries seeking the highly valued roe and other pollock products. In the absence of regulatory action, the TAC for roe-season pollock (441,500 mt in 1991) could have been taken almost exclusively in area 515. Such concentrated pollock harvests in the Bogoslof area could substantially exceed the ABC for this area. Such harvests could result in the Aleutian Basin stock being overfished, given the large international fishing fleet that also exploits these fish without limit in the international waters of the Bering Sea.

To prevent overharvesting of pollock in the Bogoslof area during the 1991 roe season, the Council recommended and the Secretary implemented an emergency interim rule (56 FR 5659). This action temporarily established a Bogoslof District and prescribed a catch limit in the district of 200,000 mt of pollock. The effect of this emergency rule expired on April 15, 1991. Expiration of this rule is not a problem for the remainder of the 1991 fishing year because Aleutian Basin pollock leave the Bogoslof area after spawning. The same management measures cannot be used in 1992 and future years, however, unless the FMP and its implementing regulations are amended through the normal rule-making process. Information applicable to the 1992 fishing year is still preliminary. To obtain a preliminary biomass estimate for 1992, the 1991 biomass estimate of 600,000 mt, which was determined from

the 1991 hydroacoustic survey, was adjusted to account for natural mortality, resulting in 445,000 mt. The Council, at its September 23-29, 1991, meeting, adopted an Acceptable Biological Catch estimate of 0-102,000 mt. This wide range expresses uncertainty in the status of pollock stocks. The upper end of the range may be too high for a number of reasons. The decline in catch per unit of effort in the Donut Hole, and a three- to five-fold decrease in catch levels from 1989 to 1991, are indicative of substantial reductions in biomass. Over the same period, survey biomass in the proposed Bogoslof District has declined from 2.1 million mt in 1989 to 600,000 mt in 1991. This decline supports justification for a conservative management regime.

The Council recommended, therefore, that the Bogoslof District be established as a separate subarea in the BSAI for purposes of specifying and managing allowable levels of pollock harvest. The Secretary tentatively agrees with the Council recommendation and hereby proposes to establish the Bogoslof subarea. Regulations are proposed to establish statistical area 518, which means this subarea.

Groundfish fishing closures around walrus haulout sites

The BSAI FMP and implementing regulations at 50 CFR 675.22(f) close directed fishing for groundfish in the EEZ from April 1 through September 30 within 12 miles of islands named Round Island and The Twins, and around Cape Peirce. The purpose of these

closures is to reduce disturbance to walrus during times that they use these areas for haulout sites. Authority for these closures currently is based on regulations implementing Amendment 13 to the BSAI FMP (54 FR 50386, December 6, 1989). This authority expires December 31, 1991. This measure would reestablish these closures in the EEZ between 3 and 12 miles seaward of the baseline used to measure the Territorial Sea. It would address potential disturbance by prohibiting the entry into the closed area of all vessels that are Federally permitted to fish groundfish. The prohibition would apply, regardless of the activity in which the vessels might be engaged, and, thus would include support vessels as well as fishing vessels within the closed areas, and would prohibit the transit of Federally permitted vessels through the areas.

Significant biological or economic information is not available at this time beyond that upon which Amendment 13 is based. The environmental assessment prepared for that measure summarizes the information, as follows: The peak number of walrus counted on Round Island has fluctuated over time. Numbers declined from about 15,000 in 1978 to about 6,000 in 1984. The decline was attributed to disturbance resulting from the developing Togiak herring fishery and from arriving and departing visitors to Round Island. State regulations were made more restrictive in 1984 by increasing the controlled access area around Round Island from 0.5 to 2.0 miles. The number of walrus counted at the haul outs

increased to 12,500 in 1986. The size of the controlled access zone was further increased to 3.0 miles in 1989. The Federal Aviation Administration, at the request of the State of Alaska, issued a notice of airspace restriction prohibiting overflights of an altitude of less than 2,000 feet within one-half mile of Round Island. One reason for the restriction was to reduce disturbance associated with the State-managed herring fishery.

In 1987, daily counts and peak haulout counts on Round Island declined dramatically, and peak numbers never exceeded 5,300 walrus. Counts were even lower in 1988 with a minimum reaching 4,424 walrus. The only obvious change in human activity in the area was a large fleet of vessels associated with the yellowfin sole fishery that appeared in the vicinity of Round Island for the first time in 1987, and returned again in 1988. In 1989, the yellowfin sole fleet did not fish in the vicinity of Round Island and the peak count of walrus rebounded to 7,792. The peak count for 1990, when fishing was closed under existing regulations was 6,891, which is lower than that for 1989, but the difference is considered to be insignificant.

At Cape Pierce, the peak number of walrus hauling out increased to 12,548 animals in 1985. The peak count declined to 6,249 in 1987, increased to 6,938 in 1988, and dropped considerably to 2,436 in 1989 and to 1,474 in 1990. The decline between 1986 and 1987 is believed to be disturbance related. Some disturbance

occurs at the Cape Peirce haulout site due to subsistence hunting and traffic from aircraft and boats. The frequency of disturbance is believed to have been relatively constant from year to year. Vessels associated with the yellowfin sole fishery have not been observed in the area. Walrus numbers at Cape Peirce and Round Island remain substantially below numbers observed prior to 1987.

To reduce disturbance that fisheries may impose on walrus during haulout periods, the Council recommended that the April 1-September 30 closure around the haulout sites be implemented on a permanent basis. Based on industry testimony, the Council also recommended that a transit corridor be established around Right Hand Point, which will extend three miles from the shore. The purpose of this corridor is to allow vessels to move through a particular area to other fishing grounds, while at the same time remaining as far as possible from Round Island, which is one of the haulout sites. Establishing the transit corridor would reduce travel distance by 80 miles.

The Secretary concurs with the Council recommendation to amend the BSAI FMP, and, therefore, proposes the closures with two exceptions. First, because these closures would be implemented under authority of the fishery management plan, they would affect only those vessels fishing for groundfish. Closures to vessels fishing for non-groundfish species are not authorized unless those vessels possess Federal fishing permits issued under authority of

other FMPs. The Secretary will review authorities for implementing other closures. Second, because the Magnuson Act does not apply to the Territorial Sea, the Secretary is not proposing the transit area around Right Hand Point. The State of Alaska will be requested to close the Territorial Sea around the Walrus Islands consistent with the intent of Federal regulations. The Council then may request the State of Alaska to implement the intent of the Council by allowing a transit area around Right Hand Point.

To implement the intent of this amendment, a regulation is proposed that prohibits entry into the closed area nine miles seaward of the Territorial Sea by Federally permitted fishing vessels during April 1 - September 30. This prohibition applies to vessels that are Federally permitted under 50 CFR Part 675.4.

Recision of Statistical area 68 in the GOA

The present East Yakutat District (Statistical Area 68) is proposed to be deleted by combining it with the Southeast Outside District (Statistical Area 65). The present Statistical Area 68 no longer serves a useful purpose for fishery conservation and management. In 1980, the Eastern Regulatory Area in the Gulf of Alaska was divided into the Yakutat District and the Southeast Outside District for purposes of sablefish management (45 FR 73486, November 5, 1980). In 1983, the Yakutat District was further divided into the West Yakutat District and the East

Yakutat District, again for purposes of sablefish management (48 FR 43044, September 21, 1983).

Initial management experience during the 1984 sablefish fishery, however, indicated that the newly created East Yakutat District was not functioning as intended. Because the boundary (137° W. longitude) between the East Yakutat and the Southeast Outside Districts lies across a major fishing ground, catch reports could not be relied upon to separate catches between the two districts.

As a practical matter, NMFS has been managing the two districts as a single, combined district since 1984, even though two harvest quotas were established. The combined districts have been referred to as the Southeast Outside/East Yakutat District. Since 1987, a single harvest quota has been specified for these combined districts (52 FR 785, January 9, 1987).

Fishermen are required to maintain records by Federal Reporting Area, which is the same as a statistical area, except that the reporting area also includes adjacent waters of the Territorial Sea. Regulations at 50 CFR 672.2 identify Statistical Area 68 as the East Yakutat District. Fishermen are required to complete each day a separate sheet in the Daily Fishing Logbook (DFL) for each reporting area in which they fish. If they fish in Area 68 and then fish in the Area 65 (Southeast

Outside District), they must complete separate sheets in the DFL. Likewise, operators of processor vessels and managers of shoreside processing facilities who receive or process groundfish from both reporting areas on the same day must complete an additional sheet in the Daily Cumulative Production Log. Such reporting is necessary when harvest quotas are specified for each area. Because only one harvest quota is specified for the combined Southeast Outside/East Yakutat District, no useful information is obtained from the additional reports.

The Secretary concurs with the Council's recommendation and hereby proposes to rescind Statistical Area 68 by combining it with Statistical Area 65.

Authority to issue experimental fishing permits for the GOA and BSAI groundfish fisheries

Amendments to both the GOA and BSAI FMPs are proposed that would authorize the Regional Director to issue experimental fishing permits on a case-by-case basis after consulting with the Council.

Experimental fishing could provide information not otherwise available through research or commercial fishing operations. Results may be used to supplement information obtained through research. Fishing mortality resulting from experimental fishing

would be outside of any TAC specification. Such additional mortality would be authorized only if overfishing as defined in the GOA and BSAI FMPs would not occur. Experimental fishing permits would expire at the end of a calendar year.

Proposed procedures for implementing this measure address the following elements: preliminary screening of permit applications, Council consultation, notifying the applicant, and provisions for permit terms and conditions. These elements are discussed as follows:

Preliminary screening -- Under regulations proposed to implement this measure, the Regional Director, in consultation with the Alaska Fishery Science Center (AFSC), would preliminarily screen any application for an experimental fishing permit to determine whether its experimental design as described in the application could reasonably be expected to provide information as intended should the experimental fishing permit be issued. If the Regional Director determines that the experimental design is inadequate for obtaining intended information, the application would be returned to the submitter with reasons why the experimental design was determined to be inadequate. The Council would be notified of the Regional Director's determination. If, however, the Regional Director determines that the experimental design is adequate, the Regional Director would commence consultation with the Council.

Council consultation -- If the Regional Director finds the application is complete and warrants further consideration, he will initiate consultation with the Council concerning the permit application by forwarding the application to the Council. The Council's Executive Director shall notify the applicant of a meeting, if any, at which the Council will consider the application and invite the applicant to appear in support of the application if the applicant desires. If the Regional Director initiates consultation with the Council, the Secretary of Commerce will publish a notice of receipt of the application in the Federal Register with a brief description of the proposal.

Application contents -- In addition to other information required in the proposed regulations, an application for an experimental fishing permit must include the following written information when it is submitted to the Regional Director:

1. A statement of the purpose and goal of the experiment, including justification explaining why issuance of experimental fishing permit is warranted;
2. Technical details about the experiment, including the area and timing of the experiment, vessel and gear to be used, experimental design, staffing, sampling procedures, the data and samples to be collected, analysis of the data

and samples, provision for public release of all obtained information by means of interim and/or final reports;

3. A description of the species to be harvested, amount of such harvest necessary to conduct the experiment, and arrangement for disposition of all species taken;

4. The willingness of the applicant to carry observers, if required by the Regional Director, and a description of accommodations and work space for the observer(s); and

5. Details for all coordinating parties engaged in the experiment and signatures of all representatives of all principal parties.

Notifying the Applicant -- The Regional Director shall notify the applicant in writing of the decision to grant or deny the experimental fishing permit as soon as practicable after consulting with the Council, and, if denied, the reasons for the denial. Grounds for denial of an experimental fishing permit include, but are not limited to, the following:

1. The applicant has failed to disclose material information required, or has made false statements as to any material fact, in connection with the application;

2. According to the best scientific information available, the harvest to be conducted under the permit would detrimentally affect any species of fish in a significant way;

3. Activities to be conducted under the experimental fishing permit would be inconsistent with the intent of this section or the management objectives of the FMP;

4. The applicant has failed to demonstrate a valid justification for the permit;

5. The activity proposed under the experimental fishing permit could create a significant enforcement problem; or

6. The applicant failed to make available to the public information that had been obtained under a previously issued experimental fishing permit.

In the event a permit is denied, on the basis of incomplete information or design flaws, after preliminary screening or after consultation with the Council, the applicant will be provided an opportunity to resubmit the application. If, however, a permit is denied because experimental fishing would detrimentally affect fish stocks, have economic allocation as its sole purpose, be

inconsistent with the management objectives of the FMP, or create significant enforcement problems, the decision of the Regional Director will be the final action of the agency.

Terms and conditions -- The Regional Director may attach terms and conditions to the experimental fishing permit consistent with the purpose of the experiment. Unless otherwise specified in the experimental fishing permit or a superseding notice or regulation, an experimental fishing permit is effective for no longer than one year unless revoked, suspended, or modified. Experimental fishing permits may be renewed following the above application procedures.

Predicting what types of information collections might be authorized by experimental fishery permits is not practical. Types of experiments that might be conducted or facilitated under this proposed measure include:

- Fishing in areas where the total allowable catch (TAC) has been reached, e.g. determine abundance of minor target species components of a complex;
- Fishing with gear types otherwise prohibited; and
- Fishing in areas otherwise closed to all fishing.

Each type would be considered on a case-by-case basis when reviewing the application for an experimental fishing permit.

Because neither groundfish FMP currently authorizes fishery experiments, or specific harvests of groundfish to support experiments, the Secretary proposes to establish that authorization.

Additional Proposed Regulatory Changes

Certain changes to existing regulations are proposed that the Secretary has determined are necessary for fishery conservation and management. These changes and the reasons for them are as follows:

1. In §672.20(f)(1)(i), (ii), (iii), the phrase "... the Regional Director will publish a notice in the Federal Register prohibiting fishing by JVP and DAP vessels ..." is changed to read, "... the Regional Director will publish a notice in the Federal Register prohibiting directed fishing for groundfish by JVP and DAP vessels ...". This change is necessary to limit the prohibition to just directed fishing operations. Without this change, all fishing would be prohibited, which is beyond the scope of the intent of this paragraph (f). All fishing would include any operations at sea in support of, or in preparation for, actual directed fishing operations, including processing.

Paragraph (f) was not intended to prohibit operations other than directed fishing.

2. Regulations implementing the FMP stipulate that the State of Alaska has management responsibility for directed fishing standards for demersal shelf rockfish when caught in other directed fishing operations in the Southeast Outside District. §672.20(g)(3) is changed to refer to Alaska Administrative Code 28.170 for directed fishing standards that apply to demersal shelf rockfish. This change is included to clarify FMP authority for State of Alaska management of the demersal shelf rockfish fishery.

3. A definition of non-pelagic trawl, a term already used elsewhere in implementing regulations, is added to 50 CFR 672.2 and 675.2 for purposes of clarifying regulations by providing a definition of a trawl that is not a pelagic trawl.

4. In §675.20(h)(2), the first sentence is changed to read, "Using trawl gear for yellowfin sole, "other flatfish", or arrowtooth flounder until May 1". The purpose of this change is to clarify the intent of the regulation which was to accommodate larger bycatch amounts of yellowfin sole, "other flatfish", and arrowtooth flounder in directed fisheries for rock sole before the general flatfish season starts on May 1. After the general flatfish season starts on May 1, retainable individual amounts of

yellowfin sole, "other flatfish", or arrowtooth flounder would be allowed in amounts up to 20 percent of other fish species on board.

5. Paragraph 672.2 is amended by changing the definitions of groundfish. Rather than list individual groundfish species, the definition would reference groundfish species in Table 1 required by paragraph 672.20(a)(1). The present definition of groundfish in paragraph 672.2 includes species that often are not consistent with those in Table 1, which may be updated annually. Confusion will be prevented if only a single list is referenced.

6. Paragraphs 672.24(a) and 675.24(a) are amended to require fishermen using pots in the groundfish fishery to mark each pot with a tag that identifies the pot as being used in the groundfish fishery. This change is proposed in response to a Council recommendation to address enforcement problems. These problems arise especially for the State of Alaska, which manages crab fisheries off Alaska. Crab fisheries are conducted only with pot gear by regulations. When the State of Alaska closes areas to crab fishing, groundfish pots would not be prohibited in the same water. Although technical difference exist between Tanner crab pots and groundfish pots, no difference exist between king crab pots and groundfish pots.

Fishermen conceivably could continue fishing for crab during a closure in the guise of fishing for groundfish. Unless fishermen were actually observed to retain crab after retrieving

pot gear, detecting a violation would be difficult. If a fishing vessel were boarded by an enforcement officer and pot gear was being retrieved, fishermen could contend that the pots were being used for groundfish and discard crab during the interim.

By requiring fishermen to tag their pots as being groundfish pots, they would be committing themselves to using groundfish pots. Pots not tagged would be assumed to be crab pots. A violation would have taken place, if non-tagged pots are retrieved in areas closed to fishing for crab. Fishermen are not required to use any certain type of tag; they just will be responsible to tag their pots in such a way that the tag has the word "groundfish" on it.

Classification

Section 304(a)(1)(C) of the Magnuson Act, as amended by Pub. L. 99-659, requires the Secretary to publish regulations proposed by a Council within 15 days of receipt of the FMP amendment and regulations. At this time the Secretary has not determined that the FMP amendments these regulations would implement 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 that concludes that none of the proposed measures in this rule would cause impacts considered significant for purposes of this Executive Order. A copy of this 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.

NMFS concluded formal Section 7 Consultation on the BSAI and GOA FMPs and fisheries. The biological opinions issued for the consultations concluded that the FMPs and fisheries are not likely to jeopardize the continued existence and recovery of any endangered or threatened species under the jurisdiction of NMFS. Adoption of the management measures described in this proposed

rule will not affect listed species in a way that was not already considered in the aforementioned biological opinions. NMFS has determined that no further Section 7 Consultation is required for adoption of these FMP amendments.

This proposed rule contains 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

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 continues to read as follows:

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

2. In §672.2, the definition of groundfish is revised, a definition of non-pelagic trawl is added in alphabetical order, and the definition of Statistical Area is revised by deleting statistical area 68 and revising statistical area 65, as follows:

* * * * *

§672.2 Definitions

* * * * *

Groundfish means target species categories and the "other species" category contained in Table 1, referenced in paragraph 672.20(a)(1).

* * * * *

Non-pelagic trawl means a trawl which has discs, bobbins, rollers, or other chafe protection gear attached to the foot rope, or which does not otherwise conform with the definition of a pelagic trawl contained in this section.

* * * * *

(6) Statistical Area 65--between 132°40' and 140° W.
longitudes and north of 54°30' N. latitude;

* * * * *

3. §672.6 is added to read as follows:

§672.6 Experimental fisheries.

(a) General. For limited experimental purposes, the Regional Director may authorize, after consulting with the Council, fishing for groundfish in a manner that would otherwise be prohibited. No experimental fishing may be conducted unless authorized by an experimental fishing permit issued by the Regional Director to the participating vessel owner in accordance with the criteria and procedures specified in this section. Experimental fishing permits will be issued without charge and will expire at the end of a calendar year unless otherwise provided for under paragraph (e) of this section.

(b) Application. An applicant for an experimental fishing permit shall submit to the Regional Director at least 60 days before the desired effective date of the experimental fishing permit a written application including, but not limited to, the following information:

(1) The date of the application;

(2) The applicant's name, mailing address, and telephone number;

(3) A statement of the purpose and goal of the experiment for which an experimental fishing permit is needed, including a general description of the arrangements for disposition of all species harvested under the experimental fishing permit;

(4) Technical details about the experiment, including:

(i) Amounts of each species to be harvested that are necessary to conduct the experiment, and arrangement for disposition of all species taken;

(ii) Area and timing of the experiment;

(iii) Vessel and gear to be used;

(iv) Experimental design, e.g. sampling procedures, the data and samples to be collected, and analysis of the data and samples; and

(v) Provision for public release of all obtained information, and submission of interim and final reports;

(5) The willingness of the applicant to carry observers, if required by the Regional Director, and a description of accommodations and work space for the observer(s); and

(6) Details for all coordinating parties engaged in the experiment and signatures of all representatives of all principal parties.

(7) Information about each vessel to be covered by the experimental fishing permit, including:

(i) Vessel name;

(ii) Name, address, and telephone number of owner and master;

(iii) U.S. Coast Guard documentation, State license, or registration number;

(iv) Home port;

(v) Length of vessel;

(vi) Net tonnage; and

(vii) Gross tonnage.

(8) The signature of the applicant.

(9) The Regional Director may request from an applicant additional information necessary to make the determinations required under this section. An incomplete application will not be considered until corrected in writing. An applicant for an experimental fishing permit need not be the owner or operator of the vessel(s) for which the experimental fishing permit is requested.

(c) Review procedures.

(1) The Regional Director, in consultation with the Alaska Fishery Science Center, will review each application and will make a preliminary determination whether the application contains all the information necessary to determine if the proposal constitutes a valid experimental program appropriate for further consideration. If the Regional Director finds any application

does not warrant further consideration, the applicant will be notified in writing of the reasons for the decision.

(2) If the Regional Director determines any application is complete and warrants further consideration, he will initiate consultation with the Council by forwarding the application to the Council. The Council's Executive Director shall notify the applicant of a meeting at which the Council will consider the application and invite the applicant to appear in support of the application if the applicant desires. If the Regional Director initiates consultation with the Council, the Secretary will publish a notice of receipt of the application in the Federal Register with a brief description of the proposal.

(d) Notifying the applicant.

(1) The decision of the Regional Director, after consulting with the Council, to grant or deny an experimental fishing permit is the final action of the agency. The Regional Director shall notify the applicant in writing of the decision to grant or deny the experimental fishing permit and, if denied, the reasons for the denial, including:

(i) The applicant has failed to disclose material information required, or has made false statements as to any material fact, in connection with the application;

(ii) According to the best scientific information available, the harvest to be conducted under the permit would

detrimentally affect living marine resources, including marine mammals and birds, and their habitat in a significant way;

(iii) Activities to be conducted under the experimental fishing permit would be inconsistent with the intent of this section or the management objectives of the FMP;

(iv) The applicant has failed to demonstrate a valid justification for the permit;

(v) The activity proposed under the experimental fishing permit could create a significant enforcement problem; or

(vi) The applicant failed to make available to the public information that had been obtained under a previously issued experimental fishing permit.

(2) In the event a permit is denied on the basis of incomplete information or design flaws, the applicant will be provided an opportunity to resubmit the application, unless a permit is denied, because experimental fishing would detrimentally affect fish stocks, have economic allocation as its sole purpose, be inconsistent with the management objectives of the FMP, or create significant enforcement problems,

(e) Terms and conditions. The Regional Director may attach terms and conditions to the experimental fishing permit consistent with the purpose of the experiment, including but not limited to:

(i) The maximum amount of each species that can be harvested and landed during the term of the experimental fishing permit, including trip limitations, where appropriate;

(ii) The number, sizes, names, and identification numbers of the vessels authorized to conduct fishing activities under the experimental fishing permit;

(iii) The time(s) and place(s) where experimental fishing may be conducted;

(iv) The type, size, and amount of gear that may be used by each vessel operated under the experimental fishing permit;

(v) The condition that observers be carried aboard vessels operated under an experimental fishing permit;

(vi) Reasonable data reporting requirements (OMB Approval No. 0648-0206);

(vii) Such other conditions as may be necessary to assure compliance with the purposes of the experimental fishing permit consistent with the FMP objectives; and

(viii) Provisions for public release of data obtained under the experimental fishing permit.

(g) Effectiveness. Unless otherwise specified in the experimental fishing permit or a superseding notice or regulation, an experimental fishing permit is effective for no longer than one year unless revoked, suspended, or modified.

Experimental fishing permits may be renewed following the above application procedures.

4. In §672.20, paragraphs (f)(1)(i)-(iii) are revised to read as follows:

§672.20 General limitations.

* * * * *

(f) * * *

(1) * * *

(i) Trawl gear. If, during the fishing year, the Regional Director determines that the catch of halibut by operators of vessels using trawl gear and delivering their catch to foreign vessels (JVP vessels) or operators of vessels using trawl gear and delivering their catch to U.S. fish processors or processing their catch on board (DAP vessels) will reach their proportional share of the seasonal allocation of the halibut PSC limit provided for under paragraph (f)(2) of this section, the Regional Director will publish a notice in the Federal Register prohibiting directed fishing for groundfish by JVP or DAP vessels, as appropriate, with trawl gear other than pelagic trawl gear for the remainder of the season to which the PSC allocation applies.

(ii) Hook-and-line gear. If, during the year, the Regional Director determines that the catch of halibut by operators of

vessels using hook-and-line gear and delivering their catch to foreign vessels (JVP vessels) or operators of vessels using hook-and-line gear and delivering their catch to U.S. fish processors or processing their catch on board (DAP vessels) will reach their proportional share of the seasonal allocation of the halibut PSC limit provided for under paragraph (f)(2) of this section, the Regional Director will publish a notice in the Federal Register prohibiting directed fishing for groundfish by JVP or DAP vessels, as appropriate, with hook-and-line gear for the remainder of the season to which the PSC allocation applies.

(iii) Pot gear. If during the year, the Regional Director determines that the catch of halibut by operators of vessels using pot gear and delivering their catch to foreign vessels (JVP vessels) or operators of vessels using pot gear and delivering their catch to U.S. fish processors or processing their catch on board (DAP vessels) will reach their proportional share of the seasonal allocation of the halibut PSC limit provided for under paragraph (f)(2) of this section, the Regional Director will publish a notice in the Federal Register prohibiting directed fishing for groundfish by JVP or DAP vessels, as appropriate, with pot gear for the remainder of the season to which the PSC allocation applies.

* * * * *

(g) * * *

(3) Other. (i) Groundfish other than demersal shelf rockfish. Except as provided under paragraphs (g)(1) and (2) of this section, the operator of a vessel is engaged in the directed fishing for a specific species or species group if he retains at any particular time during a trip that species or species group in an amount equal to or greater than 20 percent of the amount of all other fish species retained at the same time by the vessel during the same trip.

(ii). Demersal shelf rockfish. Directed fishing standards for demersal shelf rockfish in management areas within the Eastern Regulatory Area where the total allowable catch is specified are governed by 5 AAC 28.170.

5. In §672.24(a), paragraph (3) is added to read as follows:

§672.24 Gear limitations.

(a) * * *

(3) All pots carried aboard or used by any vessel regulated under this part shall be marked with a label that is maintained in good condition and which includes the word "groundfish".

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

6. The authority citation for 50 CFR Part 675 continues to read as follows:

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

7. In §675.2, the definition of Bering Sea and Aleutian Islands management area is revised by amending the Bering Sea subarea and adding the Bogoslof subarea, a definition of non-pelagic trawl is added in alphabetical order, the definition of statistical area is revised by deleting Statistical Area 515, adding new definitions for Statistical Areas 518 and 519, and redesignating subparagraphs, as follows:

§675.2 Definitions.

* * * * *

Bering Sea and Aleutian Islands management area means * * *

(a) The Bering Sea subarea of the management area means that part of the EEZ contained in areas I, exclusive of the Bogoslof subarea, II, and III of Figure 1,

* * * * *

(c) The Bogoslof subarea of the management area means that portion of the EEZ contained in area I of Figure 1.

* * * * *

Non-pelagic trawl means a trawl which has discs, bobbins, rollers, or other chafe protection gear attached to the foot

rope, or which does not otherwise conform with the definition of a pelagic trawl contained in this paragraph.

* * * * *

Statistical area means any one of the twelve statistical areas of the Bering Sea and Aleutian Islands management area defined as follows:

* * *

(g) Statistical area 518 - south of straight lines connecting the following coordinates in the order listed:

55°46' N. 170°00' W.,

54°30' N. 167°00' W., then south to straight lines between the Aleutian Islands connecting the following coordinates in the order listed:

54° 23.9' N. 164° 44.0' W.,

54° 11.9' N. 165° 23.3' W.,

54° 08.9' N. 165° 38.8' W.,

54° 07.7' N. 165° 40.6' W.,

54° 02.9' N. 166° 03.0' W.,

53° 59.0' N. 166° 17.2' W.,

53° 23.8' N. 167° 50.1' W.,

53° 18.7' N. 167° 51.4' W.,

52° 49.8' N. 169° 06.3' W., and

52° 49.2' N. 169° 40.4' W.,

52° 49.2' N. 170° 00.0' W., then north to

55° 46.0' N. 170° 00.0' W.

(h) Statistical area 519 - the area bounded by the following coordinates in the order listed:

54°30' N. 167°00' W.,

54°30' N. 165°00' W.,

53°30' N. 167°00' W., and

54°30' N. 167°00' W.

* * * * *

[Add Figure 2 showing all BSAI reporting areas.]

8. §675.6 is added to read as follows:

§675.6 Experimental fisheries.

Regulations at 50 CFR part 672.6 **Experimental Fisheries**, apply and are incorporated by reference.

9. Paragraph 672.20(h)(2) is revised to read as follows:

§675.20 General limitations.

(h) * * *

(2) Using trawl gear for yellowfin sole, "other flatfish," or arrowtooth flounder. (i) Before the May 1 season starting date in §675.23(c). The operator of a vessel is engaged in directed fishing for yellowfin sole, "other flatfish," or arrowtooth flounder if he retains at any time during a trip an aggregate amount of yellowfin sole, "other flatfish," and arrowtooth flounder caught using trawl gear equal to or greater than a total of:

(A) 35 percent of the amount of rocksole retained at the same time on the vessel during the same trip, plus

(B) 20 percent of the total amount of other fish species (besides rock sole, yellowfin sole, "other flatfish," and

arrowtooth flounder) retained at the same time by the vessel during the same trip.

(ii) On and after the May 1 season starting date in §675.23(c). The operator of a vessel is engaged in directed fishing for yellowfin sole, "other flatfish," or arrowtooth flounder if he retains at any particular time during a trip an amount of any one these species that is 20 percent or more of the total amount of other fish retained at the same time by the vessel during the same trip.

10. In §675.22, paragraph (f) is added to read as follows:

§675.22 Time and area closures.

* * * * *

(f) During April 1 through September 30 of any fishing year, vessels Federally permitted under §675.4 of this part are prohibited in that part of the Bering Sea subarea between three and twelve miles seaward of the baseline used to measure the Territorial Sea around islands named Round Island and The Twins as shown on National Ocean Survey Chart 16315, and around Cape Peirce (58° 33' N. latitude, 161° 43' W. longitude) [insert Figure].

* * * * *

11. In §675.24, paragraph (a) is amended to read as follows:

§675.24 Gear limitations.

(a) Marking of gear. (1) All longline marker buoys carried aboard or used by any vessel regulated under this part shall be marked with at least one of the following:

- (i) The vessel's name; and
- (ii) The vessel's Federal permit number; or
- (iii) The vessel's registration number.

(2) Markings shall be in characters at least four inches in height and one-half inch in width in a contrasting color visible above the water line and shall be maintained in good condition.

(3) All pots carried aboard or used by any vessel regulated under this part shall be marked with a label that is maintained in good condition and which includes the word "groundfish".

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration (NOAA)

50 CFR Parts 672 and 675

[Docket No.]

RIN 0648-

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

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

ACTION: Proposed rule.

SUMMARY: The Secretary of Commerce (Secretary) proposes regulations to implement Amendment 22 to the Fishery Management Plan (FMP) for Groundfish of the Gulf of Alaska (GOA) and Amendment 17 to the FMP for the Groundfish Fishery of the Bering Sea and Aleutian Islands Area (BSAI). These regulations are proposed to implement the following amendment measures: (1) a new management subarea in the BSAI would be established; (2) area closures would be established around walrus haulouts in the BSAI; (3) statistical area 68 in the GOA would be rescinded; and (4) the Regional Director, Alaska Region, NMFS would be authorized to issue experimental fishing permits in the GOA and/or BSAI. In addition, certain amendments to existing implementing regulations are proposed. These actions are necessary to promote management and conservation of groundfish and other living marine resources. They

are intended to further the goals and objectives contained in both FMPs that govern these fisheries.

DATE: Comments are invited until [insert date 45 days after date of filing for public inspection by the Office of the Federal Register].

ADDRESS: Comments may be sent to Dale R. Evans, Chief, Fishery Management Division, Alaska Region, National Marine Fisheries Service, P.O. Box 21668, Juneau, AK 99802. Individual copies of proposed Amendments 17 and 22 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: Ronald J. Berg (Fishery Management Biologist, NMFS), 907-586-7228.

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.

The Council annually solicits management proposals from the public and state and Federal agencies. The Council set a deadline of August 17, 1990, for receiving proposals for inclusion in Amendments 17 and 22. At its January 14-18, 1991, meeting, the Council reviewed proposals that were received. It selected for further consideration measures that would amend either or both FMPs. The Council's GOA and BSAI Plan Teams prepared draft EA/RIR/IRFAs to discuss and analyze the need for the proposals relating to each FMP under guidance of the National Environmental Policy Act of 1969, Executive Order 12291, and NOAA policy. The Council reviewed these documents at its meeting on April 23-26, 1991, and decided to send the analyses to the interested public for review. These documents are dated May 14, 1991.

At its June 24-29 and August 13-16, 1991, meetings, the Council considered the testimony and recommendations of its Advisory Panel (AP), Scientific and Statistical Committee (SSC), Plan Teams, fishing industry representatives and the general public on each amendment proposal and the EA/RIR/IRFA analysis. It then

approved the following measures for inclusion into Amendments 17 and 22 for review by the Secretary under §304(b) of the Magnuson Act:

- (1) Establishment of the Bogoslof subarea in the BSAI;
- (2) Groundfish fishing closures around walrus haulout sites in the BSAI;
- (3) Recision of Statistical Area 68 in the GOA; and
- (4) Authority for the Regional Director to issue experimental fishing permits for the GOA and/or BSAI groundfish fisheries.

In addition to the above FMP amendments, amendments to current implementing regulations are proposed as discussed below (see Additional Proposed Regulatory Changes).

A description of, and the reasons for, each measure follow:

Establishment of the Bogoslof subarea in the BSAI

For purposes of managing pollock (Theragra chalcogramma), a measure is proposed that would establish a new management subarea in the BSAI. Pollock is the most abundant groundfish species in the BSAI. The exploitable biomass (pollock aged 3 years and older) for 1991 over the continental shelf area of the Eastern Bering Sea was estimated at 6.7 million metric tons (mt). An additional 405,000 mt was estimated for the Aleutian Islands subarea. Generally, the abundance of pollock in the Eastern Bering Sea is

considered to be high due to strong year classes in 1982 and 1984 but declining due to weaker year classes recruiting to the exploitable population since 1984.

The commercial harvest of pollock also dominates that of all other groundfish species. In 1990, about 1.4 million mt of pollock were caught in the BSAI management area, which amounted to about 77 percent of the total groundfish catch by United States fishermen in this area. This harvest was almost entirely processed by U.S. at-sea or shore-based processors. Common products made from pollock include frozen blocks, fillets, surimi, meal and roe. Pollock roe has the highest value, per mt. It is harvested from pre-spawning aggregations of pollock during the roe season from January through mid-April.

The BSAI FMP provides authority to limit the amount of the total allowable catch (TAC) of pollock that is taken during the roe season (January 1 through April 15). For the 1991 fishing year, 441,500 mt, or 34 percent of the 1991 pollock TAC of 1.3 million mt for the Bering Sea subarea, was allocated to the roe season.

Separate TACs for pollock fisheries are specified for the Bering Sea and Aleutian Islands subareas of the BSAI management area. The Aleutian Islands subarea includes the U.S. EEZ that is north and south of the Aleutian Islands, west of 170° W. longitude, and south of 55° N. latitude. The Bering Sea subarea includes all

remaining areas of the U.S. EEZ in the Bering Sea. For management purposes, the Aleutian Islands subarea is reporting area 540 and the Bering Sea subarea includes all other reporting areas. Hence, the pollock TAC for the Bering Sea subarea applies to all fisheries in reporting areas beginning with 51, 52 and 53. The pollock TAC for the Aleutian Islands subarea applies to fisheries in reporting area 540.

The Bering Sea pollock stock, however, is not distinguishable along these reporting area boundaries. Recent biological data, however, suggest that the pollock population on the Eastern Bering Sea continental shelf is different from that in the deep water area known as the Aleutian Basin. The international waters, outside the fishery management jurisdiction of either the U.S. or the Union of Soviet Socialist Republics (commonly referred to as the "Donut Hole"), approximates the center of the Aleutian Basin. Age composition data indicate that Aleutian Basin pollock are generally older, and, at any specific age, generally smaller, than those found on the continental shelf. Data also indicate that pollock in the Aleutian Islands subarea are generally different from either those in the Aleutian Basin or those on the continental shelf. Genetic studies and other biological assessments are continuing to determine the stock structure of Bering Sea pollock.

The deep water of the Aleutian Basin is closest to the Alaska Peninsula in statistical area 515. The relatively flat plain of

the continental shelf descends steeply down the continental slope and into the Aleutian Basin along the shelf break which extends generally in a northwest-southeast direction (roughly, the diagonal boundary of statistical areas 517 and 521). In reporting area 515, the shelf break curves sharply to the southwest toward the western Aleutian Islands. This area is a principal spawning area for Aleutian Basin pollock.

Pollock harvests in existing Statistical Area 515 currently are not managed under a separate ABC, because such harvests are considered as part of the ABC specified for the larger Bering Sea subarea. For 1991, the Bogoslof pollock ABC was calculated to be 286,000 mt, but for the continental shelf portion of the Bering Sea subarea, the 1991 ABC was 1.7 million mt. The TAC for the entire Bering Sea subarea was established at 1.3 million mt.

Biological surveys of the pollock biomass in the Bering Sea subarea have been limited to the Eastern Bering Sea continental shelf, and have not included the Bogoslof pollock because they appear to be of a separate stock. Although the biomass and ABC estimates for pollock in the Bering Sea subarea are based on biological data pertinent only to the Eastern Bering Sea continental shelf, they are applied for fishery management purposes also to area 515.

Aleutian Basin pollock are aggregated in the Bogoslof area from January through March prior to spawning and are vulnerable to intensive fishing by fisheries seeking the highly valued roe and other pollock products. In the absence of regulatory action, the TAC for roe-season pollock (441,500 mt in 1991) could have been taken almost exclusively in area 515. Such concentrated pollock harvests in the Bogoslof area could substantially exceed the ABC for this area. Such harvests could result in the Aleutian Basin stock being overfished, given the large international fishing fleet that also exploits these fish without limit in the international waters of the Bering Sea.

To prevent overharvesting of pollock in the Bogoslof area during the 1991 roe season, the Council recommended and the Secretary implemented an emergency interim rule (56 FR 5659). This action temporarily established a Bogoslof District and prescribed a catch limit in the district of 200,000 mt of pollock. The effect of this emergency rule expired on April 15, 1991. Expiration of this rule is not a problem for the remainder of the 1991 fishing year because Aleutian Basin pollock leave the Bogoslof area after spawning. The same management measures cannot be used in 1992 and future years, however, unless the FMP and its implementing regulations are amended through the normal rule-making process. Information applicable to the 1992 fishing year is still preliminary. To obtain a preliminary biomass estimate for 1992, the 1991 biomass estimate of 600,000 mt, which was determined from

the 1991 hydroacoustic survey, was adjusted to account for natural mortality, resulting in 445,000 mt. The Council, at its September 23-29, 1991, meeting, adopted an Acceptable Biological Catch estimate of 0-102,000 mt. This wide range expresses uncertainty in the status of pollock stocks. The upper end of the range may be too high for a number of reasons. The decline in catch per unit of effort in the Donut Hole, and a three- to five-fold decrease in catch levels from 1989 to 1991, are indicative of substantial reductions in biomass. Over the same period, survey biomass in the proposed Bogoslof District has declined from 2.1 million mt in 1989 to 600,000 mt in 1991. This decline supports justification for a conservative management regime.

The Council recommended, therefore, that the Bogoslof District be established as a separate subarea in the BSAI for purposes of specifying and managing allowable levels of pollock harvest. The Secretary tentatively agrees with the Council recommendation and hereby proposes to establish the Bogoslof subarea. Regulations are proposed to establish statistical area 518, which means this subarea.

Groundfish fishing closures around walrus haulout sites

The BSAI FMP and implementing regulations at 50 CFR 675.22(f) close directed fishing for groundfish in the EEZ from April 1 through September 30 within 12 miles of islands named Round Island and The Twins, and around Cape Peirce. The purpose of these

closures is to reduce disturbance to walrus during times that they use these areas for haulout sites. Authority for these closures currently is based on regulations implementing Amendment 13 to the BSAI FMP (54 FR 50386, December 6, 1989). This authority expires December 31, 1991. This measure would reestablish these closures in the EEZ between 3 and 12 miles seaward of the baseline used to measure the Territorial Sea. It would address potential disturbance by prohibiting the entry into the closed area of all vessels that are Federally permitted to fish groundfish. The prohibition would apply, regardless of the activity in which the vessels might be engaged, and, thus would include support vessels as well as fishing vessels within the closed areas, and would prohibit the transit of Federally permitted vessels through the areas.

Significant biological or economic information is not available at this time beyond that upon which Amendment 13 is based. The environmental assessment prepared for that measure summarizes the information, as follows: The peak number of walrus counted on Round Island has fluctuated over time. Numbers declined from about 15,000 in 1978 to about 6,000 in 1984. The decline was attributed to disturbance resulting from the developing Togiak herring fishery and from arriving and departing visitors to Round Island. State regulations were made more restrictive in 1984 by increasing the controlled access area around Round Island from 0.5 to 2.0 miles. The number of walrus counted at the haul outs

increased to 12,500 in 1986. The size of the controlled access zone was further increased to 3.0 miles in 1989. The Federal Aviation Administration, at the request of the State of Alaska, issued a notice of airspace restriction prohibiting overflights of an altitude of less than 2,000 feet within one-half mile of Round Island. One reason for the restriction was to reduce disturbance associated with the State-managed herring fishery.

In 1987, daily counts and peak haulout counts on Round Island declined dramatically, and peak numbers never exceeded 5,300 walrus. Counts were even lower in 1988 with a minimum reaching 4,424 walrus. The only obvious change in human activity in the area was a large fleet of vessels associated with the yellowfin sole fishery that appeared in the vicinity of Round Island for the first time in 1987, and returned again in 1988. In 1989, the yellowfin sole fleet did not fish in the vicinity of Round Island and the peak count of walrus rebounded to 7,792. The peak count for 1990, when fishing was closed under existing regulations was 6,891, which is lower than that for 1989, but the difference is considered to be insignificant.

At Cape Pierce, the peak number of walrus hauling out increased to 12,548 animals in 1985. The peak count declined to 6,249 in 1987, increased to 6,938 in 1988, and dropped considerably to 2,436 in 1989 and to 1,474 in 1990. The decline between 1986 and 1987 is believed to be disturbance related. Some disturbance

occurs at the Cape Peirce haulout site due to subsistence hunting and traffic from aircraft and boats. The frequency of disturbance is believed to have been relatively constant from year to year. Vessels associated with the yellowfin sole fishery have not been observed in the area. Walrus numbers at Cape Peirce and Round Island remain substantially below numbers observed prior to 1987.

To reduce disturbance that fisheries may impose on walrus during haulout periods, the Council recommended that the April 1-September 30 closure around the haulout sites be implemented on a permanent basis. Based on industry testimony, the Council also recommended that a transit corridor be established around Right Hand Point, which will extend three miles from the shore. The purpose of this corridor is to allow vessels to move through a particular area to other fishing grounds, while at the same time remaining as far as possible from Round Island, which is one of the haulout sites. Establishing the transit corridor would reduce travel distance by 80 miles.

The Secretary concurs with the Council recommendation to amend the BSAI FMP, and, therefore, proposes the closures with two exceptions. First, because these closures would be implemented under authority of the fishery management plan, they would affect only those vessels fishing for groundfish. Closures to vessels fishing for non-groundfish species are not authorized unless those vessels possess Federal fishing permits issued under authority of

other FMPs. The Secretary will review authorities for implementing other closures. Second, because the Magnuson Act does not apply to the Territorial Sea, the Secretary is not proposing the transit area around Right Hand Point. The State of Alaska will be requested to close the Territorial Sea around the Walrus Islands consistent with the intent of Federal regulations. The Council then may request the State of Alaska to implement the intent of the Council by allowing a transit area around Right Hand Point.

To implement the intent of this amendment, a regulation is proposed that prohibits entry into the closed area nine miles seaward of the Territorial Sea by Federally permitted fishing vessels during April 1 - September 30. This prohibition applies to vessels that are Federally permitted under 50 CFR Part 675.4.

Recision of Statistical area 68 in the GOA

The present East Yakutat District (Statistical Area 68) is proposed to be deleted by combining it with the Southeast Outside District (Statistical Area 65). The present Statistical Area 68 no longer serves a useful purpose for fishery conservation and management. In 1980, the Eastern Regulatory Area in the Gulf of Alaska was divided into the Yakutat District and the Southeast Outside District for purposes of sablefish management (45 FR 73486, November 5, 1980). In 1983, the Yakutat District was further divided into the West Yakutat District and the East

Yakutat District, again for purposes of sablefish management (48 FR 43044, September 21, 1983).

Initial management experience during the 1984 sablefish fishery, however, indicated that the newly created East Yakutat District was not functioning as intended. Because the boundary (137° W. longitude) between the East Yakutat and the Southeast Outside Districts lies across a major fishing ground, catch reports could not be relied upon to separate catches between the two districts.

As a practical matter, NMFS has been managing the two districts as a single, combined district since 1984, even though two harvest quotas were established. The combined districts have been referred to as the Southeast Outside/East Yakutat District. Since 1987, a single harvest quota has been specified for these combined districts (52 FR 785, January 9, 1987).

Fishermen are required to maintain records by Federal Reporting Area, which is the same as a statistical area, except that the reporting area also includes adjacent waters of the Territorial Sea. Regulations at 50 CFR 672.2 identify Statistical Area 68 as the East Yakutat District. Fishermen are required to complete each day a separate sheet in the Daily Fishing Logbook (DFL) for each reporting area in which they fish. If they fish in Area 68 and then fish in the Area 65 (Southeast

Outside District), they must complete separate sheets in the DFL. Likewise, operators of processor vessels and managers of shoreside processing facilities who receive or process groundfish from both reporting areas on the same day must complete an additional sheet in the Daily Cumulative Production Log. Such reporting is necessary when harvest quotas are specified for each area. Because only one harvest quota is specified for the combined Southeast Outside/East Yakutat District, no useful information is obtained from the additional reports.

The Secretary concurs with the Council's recommendation and hereby proposes to rescind Statistical Area 68 by combining it with Statistical Area 65.

Authority to issue experimental fishing permits for the GOA and BSAI groundfish fisheries

Amendments to both the GOA and BSAI FMPs are proposed that would authorize the Regional Director to issue experimental fishing permits on a case-by-case basis after consulting with the Council.

Experimental fishing could provide information not otherwise available through research or commercial fishing operations. Results may be used to supplement information obtained through research. Fishing mortality resulting from experimental fishing

would be outside of any TAC specification. Such additional mortality would be authorized only if overfishing as defined in the GOA and BSAI FMPs would not occur. Experimental fishing permits would expire at the end of a calendar year.

Proposed procedures for implementing this measure address the following elements: preliminary screening of permit applications, Council consultation, notifying the applicant, and provisions for permit terms and conditions. These elements are discussed as follows:

Preliminary screening -- Under regulations proposed to implement this measure, the Regional Director, in consultation with the Alaska Fishery Science Center (AFSC), would preliminarily screen any application for an experimental fishing permit to determine whether its experimental design as described in the application could reasonably be expected to provide information as intended should the experimental fishing permit be issued. If the Regional Director determines that the experimental design is inadequate for obtaining intended information, the application would be returned to the submitter with reasons why the experimental design was determined to be inadequate. The Council would be notified of the Regional Director's determination. If, however, the Regional Director determines that the experimental design is adequate, the Regional Director would commence consultation with the Council.

Council consultation -- If the Regional Director finds the application is complete and warrants further consideration, he will initiate consultation with the Council concerning the permit application by forwarding the application to the Council. The Council's Executive Director shall notify the applicant of a meeting, if any, at which the Council will consider the application and invite the applicant to appear in support of the application if the applicant desires. If the Regional Director initiates consultation with the Council, the Secretary of Commerce will publish a notice of receipt of the application in the Federal Register with a brief description of the proposal.

Application contents -- In addition to other information required in the proposed regulations, an application for an experimental fishing permit must include the following written information when it is submitted to the Regional Director:

1. A statement of the purpose and goal of the experiment, including justification explaining why issuance of experimental fishing permit is warranted;
2. Technical details about the experiment, including the area and timing of the experiment, vessel and gear to be used, experimental design, staffing, sampling procedures, the data and samples to be collected, analysis of the data

and samples, provision for public release of all obtained information by means of interim and/or final reports;

3. A description of the species to be harvested, amount of such harvest necessary to conduct the experiment, and arrangement for disposition of all species taken;

4. The willingness of the applicant to carry observers, if required by the Regional Director, and a description of accommodations and work space for the observer(s); and

5. Details for all coordinating parties engaged in the experiment and signatures of all representatives of all principal parties.

Notifying the Applicant -- The Regional Director shall notify the applicant in writing of the decision to grant or deny the experimental fishing permit as soon as practicable after consulting with the Council, and, if denied, the reasons for the denial. Grounds for denial of an experimental fishing permit include, but are not limited to, the following:

1. The applicant has failed to disclose material information required, or has made false statements as to any material fact, in connection with the application;

2. According to the best scientific information available, the harvest to be conducted under the permit would detrimentally affect any species of fish in a significant way;
3. Activities to be conducted under the experimental fishing permit would be inconsistent with the intent of this section or the management objectives of the FMP;
4. The applicant has failed to demonstrate a valid justification for the permit;
5. The activity proposed under the experimental fishing permit could create a significant enforcement problem; or
6. The applicant failed to make available to the public information that had been obtained under a previously issued experimental fishing permit.

In the event a permit is denied, on the basis of incomplete information or design flaws, after preliminary screening or after consultation with the Council, the applicant will be provided an opportunity to resubmit the application. If, however, a permit is denied because experimental fishing would detrimentally affect fish stocks, have economic allocation as its sole purpose, be

inconsistent with the management objectives of the FMP, or create significant enforcement problems, the decision of the Regional Director will be the final action of the agency.

Terms and conditions -- The Regional Director may attach terms and conditions to the experimental fishing permit consistent with the purpose of the experiment. Unless otherwise specified in the experimental fishing permit or a superseding notice or regulation, an experimental fishing permit is effective for no longer than one year unless revoked, suspended, or modified. Experimental fishing permits may be renewed following the above application procedures.

Predicting what types of information collections might be authorized by experimental fishery permits is not practical. Types of experiments that might be conducted or facilitated under this proposed measure include:

- Fishing in areas where the total allowable catch (TAC) has been reached, e.g. determine abundance of minor target species components of a complex;
- Fishing with gear types otherwise prohibited; and
- Fishing in areas otherwise closed to all fishing.

Each type would be considered on a case-by-case basis when reviewing the application for an experimental fishing permit.

Because neither groundfish FMP currently authorizes fishery experiments, or specific harvests of groundfish to support experiments, the Secretary proposes to establish that authorization.

Additional Proposed Regulatory Changes

Certain changes to existing regulations are proposed that the Secretary has determined are necessary for fishery conservation and management. These changes and the reasons for them are as follows:

1. In §672.20(f)(1)(i), (ii), (iii), the phrase "... the Regional Director will publish a notice in the Federal Register prohibiting fishing by JVP and DAP vessels ..." is changed to read, "... the Regional Director will publish a notice in the Federal Register prohibiting directed fishing for groundfish by JVP and DAP vessels ...". This change is necessary to limit the prohibition to just directed fishing operations. Without this change, all fishing would be prohibited, which is beyond the scope of the intent of this paragraph (f). All fishing would include any operations at sea in support of, or in preparation for, actual directed fishing operations, including processing.

Paragraph (f) was not intended to prohibit operations other than directed fishing.

2. Regulations implementing the FMP stipulate that the State of Alaska has management responsibility for directed fishing standards for demersal shelf rockfish when caught in other directed fishing operations in the Southeast Outside District. §672.20(g)(3) is changed to refer to Alaska Administrative Code 28.170 for directed fishing standards that apply to demersal shelf rockfish. This change is included to clarify FMP authority for State of Alaska management of the demersal shelf rockfish fishery.

3. A definition of non-pelagic trawl, a term already used elsewhere in implementing regulations, is added to 50 CFR 672.2 and 675.2 for purposes of clarifying regulations by providing a definition of a trawl that is not a pelagic trawl.

4. In §675.20(h)(2), the first sentence is changed to read, "Using trawl gear for yellowfin sole, "other flatfish", or arrowtooth flounder until May 1". The purpose of this change is to clarify the intent of the regulation which was to accommodate larger bycatch amounts of yellowfin sole, "other flatfish", and arrowtooth flounder in directed fisheries for rock sole before the general flatfish season starts on May 1. After the general flatfish season starts on May 1, retainable individual amounts of

yellowfin sole, "other flatfish", or arrowtooth flounder would be allowed in amounts up to 20 percent of other fish species on board.

5. Paragraph 672.2 is amended by changing the definitions of groundfish. Rather than list individual groundfish species, the definition would reference groundfish species in Table 1 required by paragraph 672.20(a)(1). The present definition of groundfish in paragraph 672.2 includes species that often are not consistent with those in Table 1, which may be updated annually. Confusion will be prevented if only a single list is referenced.

6. Paragraphs 672.24(a) and 675.24(a) are amended to require fishermen using pots in the groundfish fishery to mark each pot with a tag that identifies the pot as being used in the groundfish fishery. This change is proposed in response to a Council recommendation to address enforcement problems. These problems arise especially for the State of Alaska, which manages crab fisheries off Alaska. Crab fisheries are conducted only with pot gear by regulations. When the State of Alaska closes areas to crab fishing, groundfish pots would not be prohibited in the same water. Although technical difference exist between Tanner crab pots and groundfish pots, no difference exist between king crab pots and groundfish pots.

Fishermen conceivably could continue fishing for crab during a closure in the guise of fishing for groundfish. Unless fishermen were actually observed to retain crab after retrieving

pot gear, detecting a violation would be difficult. If a fishing vessel were boarded by an enforcement officer and pot gear was being retrieved, fishermen could contend that the pots were being used for groundfish and discard crab during the interim.

By requiring fishermen to tag their pots as being groundfish pots, they would be committing themselves to using groundfish pots. Pots not tagged would be assumed to be crab pots. A violation would have taken place, if non-tagged pots are retrieved in areas closed to fishing for crab. Fishermen are not required to use any certain type of tag; they just will be responsible to tag their pots in such a way that the tag has the word "groundfish" on it.

Classification

Section 304(a)(1)(C) of the Magnuson Act, as amended by Pub. L. 99-659, requires the Secretary to publish regulations proposed by a Council within 15 days of receipt of the FMP amendment and regulations. At this time the Secretary has not determined that the FMP amendments these regulations would implement 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 that concludes that none of the proposed measures in this rule would cause impacts considered significant for purposes of this Executive Order. A copy of this 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 contains 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

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 continues to read as follows:

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

2. In §672.2, the definition of groundfish is revised, a definition of non-pelagic trawl is added in alphabetical order, and the definition of Statistical Area is revised by deleting statistical area 68 and revising statistical area 65, as follows:

* * * * *

§672.2 Definitions

* * * * *

Groundfish means target species categories and the "other species" category contained in Table 1, referenced in paragraph 672.20(a)(1).

* * * * *

Non-pelagic trawl means a trawl which has discs, bobbins, rollers, or other chafe protection gear attached to the foot rope, or which does not otherwise conform with the definition of a pelagic trawl contained in this section.

* * * * *

(6) Statistical Area 65--between 132°40' and 140° W.
longitudes and north of 54°30' N. latitude;

* * * * *

3. §672.6 is added to read as follows:

§672.6 Experimental fisheries.

(a) General. For limited experimental purposes, the Regional Director may authorize, after consulting with the Council, fishing for groundfish in a manner that would otherwise be prohibited. No experimental fishing may be conducted unless authorized by an experimental fishing permit issued by the Regional Director to the participating vessel owner in accordance with the criteria and procedures specified in this section. Experimental fishing permits will be issued without charge and will expire at the end of a calendar year unless otherwise provided for under paragraph (e) of this section.

(b) Application. An applicant for an experimental fishing permit shall submit to the Regional Director at least 60 days before the desired effective date of the experimental fishing permit a written application including, but not limited to, the following information:

(1) The date of the application;

(2) The applicant's name, mailing address, and telephone number;

(3) A statement of the purpose and goal of the experiment for which an experimental fishing permit is needed, including a general description of the arrangements for disposition of all species harvested under the experimental fishing permit;

(4) Technical details about the experiment, including:

(i) Amounts of each species to be harvested that are necessary to conduct the experiment, and arrangement for disposition of all species taken;

(ii) Area and timing of the experiment;

(iii) Vessel and gear to be used;

(iv) Experimental design, e.g. sampling procedures, the data and samples to be collected, and analysis of the data and samples; and

(v) Provision for public release of all obtained information, and submission of interim and final reports;

(5) The willingness of the applicant to carry observers, if required by the Regional Director, and a description of accommodations and work space for the observer(s); and

(6) Details for all coordinating parties engaged in the experiment and signatures of all representatives of all principal parties.

(7) Information about each vessel to be covered by the experimental fishing permit, including:

(i) Vessel name;

(ii) Name, address, and telephone number of owner and master;

(iii) U.S. Coast Guard documentation, State license, or registration number;

(iv) Home port;

(v) Length of vessel;

(vi) Net tonnage; and

(vii) Gross tonnage.

(8) The signature of the applicant.

(9) The Regional Director may request from an applicant additional information necessary to make the determinations required under this section. An incomplete application will not be considered until corrected in writing. An applicant for an experimental fishing permit need not be the owner or operator of the vessel(s) for which the experimental fishing permit is requested.

(c) Review procedures.

(1) The Regional Director, in consultation with the Alaska Fishery Science Center, will review each application and will make a preliminary determination whether the application contains all the information necessary to determine if the proposal constitutes a valid experimental program appropriate for further consideration. If the Regional Director finds any application

does not warrant further consideration, the applicant will be notified in writing of the reasons for the decision.

(2) If the Regional Director determines any application is complete and warrants further consideration, he will initiate consultation with the Council by forwarding the application to the Council. The Council's Executive Director shall notify the applicant of a meeting at which the Council will consider the application and invite the applicant to appear in support of the application if the applicant desires. If the Regional Director initiates consultation with the Council, the Secretary will publish a notice of receipt of the application in the Federal Register with a brief description of the proposal.

(d) Notifying the applicant.

(1) The decision of the Regional Director, after consulting with the Council, to grant or deny an experimental fishing permit is the final action of the agency. The Regional Director shall notify the applicant in writing of the decision to grant or deny the experimental fishing permit and, if denied, the reasons for the denial, including:

(i) The applicant has failed to disclose material information required, or has made false statements as to any material fact, in connection with the application;

(ii) According to the best scientific information available, the harvest to be conducted under the permit would

detrimentally affect living marine resources, including marine mammals and birds, and their habitat in a significant way;

(iii) Activities to be conducted under the experimental fishing permit would be inconsistent with the intent of this section or the management objectives of the FMP;

(iv) The applicant has failed to demonstrate a valid justification for the permit;

(v) The activity proposed under the experimental fishing permit could create a significant enforcement problem; or

(vi) The applicant failed to make available to the public information that had been obtained under a previously issued experimental fishing permit.

(2) In the event a permit is denied on the basis of incomplete information or design flaws, the applicant will be provided an opportunity to resubmit the application, unless a permit is denied, because experimental fishing would detrimentally affect fish stocks, have economic allocation as its sole purpose, be inconsistent with the management objectives of the FMP, or create significant enforcement problems,

(e) Terms and conditions. The Regional Director may attach terms and conditions to the experimental fishing permit consistent with the purpose of the experiment, including but not limited to:

(i) The maximum amount of each species that can be harvested and landed during the term of the experimental fishing permit, including trip limitations, where appropriate;

(ii) The number, sizes, names, and identification numbers of the vessels authorized to conduct fishing activities under the experimental fishing permit;

(iii) The time(s) and place(s) where experimental fishing may be conducted;

(iv) The type, size, and amount of gear that may be used by each vessel operated under the experimental fishing permit;

(v) The condition that observers be carried aboard vessels operated under an experimental fishing permit;

(vi) Reasonable data reporting requirements (OMB Approval No. 0648-0206);

(vii) Such other conditions as may be necessary to assure compliance with the purposes of the experimental fishing permit consistent with the FMP objectives; and

(viii) Provisions for public release of data obtained under the experimental fishing permit.

(g) Effectiveness. Unless otherwise specified in the experimental fishing permit or a superseding notice or regulation, an experimental fishing permit is effective for no longer than one year unless revoked, suspended, or modified.

Experimental fishing permits may be renewed following the above application procedures.

4. In §672.20, paragraphs (f)(1)(i)-(iii) are revised to read as follows:

§672.20 General limitations.

* * * * *

(f) * * *

(1) * * *

(i) Trawl gear. If, during the fishing year, the Regional Director determines that the catch of halibut by operators of vessels using trawl gear and delivering their catch to foreign vessels (JVP vessels) or operators of vessels using trawl gear and delivering their catch to U.S. fish processors or processing their catch on board (DAP vessels) will reach their proportional share of the seasonal allocation of the halibut PSC limit provided for under paragraph (f)(2) of this section, the Regional Director will publish a notice in the Federal Register prohibiting directed fishing for groundfish by JVP or DAP vessels, as appropriate, with trawl gear other than pelagic trawl gear for the remainder of the season to which the PSC allocation applies.

(ii) Hook-and-line gear. If, during the year, the Regional Director determines that the catch of halibut by operators of

vessels using hook-and-line gear and delivering their catch to foreign vessels (JVP vessels) or operators of vessels using hook-and-line gear and delivering their catch to U.S. fish processors or processing their catch on board (DAP vessels) will reach their proportional share of the seasonal allocation of the halibut PSC limit provided for under paragraph (f)(2) of this section, the Regional Director will publish a notice in the Federal Register prohibiting directed fishing for groundfish by JVP or DAP vessels, as appropriate, with hook-and-line gear for the remainder of the season to which the PSC allocation applies.

(iii) Pot gear. If during the year, the Regional Director determines that the catch of halibut by operators of vessels using pot gear and delivering their catch to foreign vessels (JVP vessels) or operators of vessels using pot gear and delivering their catch to U.S. fish processors or processing their catch on board (DAP vessels) will reach their proportional share of the seasonal allocation of the halibut PSC limit provided for under paragraph (f)(2) of this section, the Regional Director will publish a notice in the Federal Register prohibiting directed fishing for groundfish by JVP or DAP vessels, as appropriate, with pot gear for the remainder of the season to which the PSC allocation applies.

* * * * *

(g) * * *

(3) Other. (i) Groundfish other than demersal shelf rockfish. Except as provided under paragraphs (g)(1) and (2) of this section, the operator of a vessel is engaged in the directed fishing for a specific species or species group if he retains at any particular time during a trip that species or species group in an amount equal to or greater than 20 percent of the amount of all other fish species retained at the same time by the vessel during the same trip.

(ii). Demersal shelf rockfish. Directed fishing standards for demersal shelf rockfish in management areas within the Eastern Regulatory Area where the total allowable catch is specified are governed by 5 AAC 28.170.

5. In §672.24(a), paragraph (3) is added to read as follows:

§672.24 Gear limitations.

(a) * * *

(3) All pots carried aboard or used by any vessel regulated under this part shall be marked with a label that is maintained in good condition and which includes the word "groundfish".

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

6. The authority citation for 50 CFR Part 675 continues to read as follows:

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

7. In §675.2, the definition of Bering Sea and Aleutian Islands management area is revised by amending the Bering Sea subarea and adding the Bogoslof subarea, a definition of non-pelagic trawl is added in alphabetical order, the definition of statistical area is revised by deleting Statistical Area 515, adding new definitions for Statistical Areas 518 and 519, and redesignating subparagraphs, as follows:

§675.2 Definitions.

* * * * *

Bering Sea and Aleutian Islands management area means * * *

(a) The Bering Sea subarea of the management area means that part of the EEZ contained in areas I, exclusive of the Bogoslof subarea, II, and III of Figure 1,

* * * * *

(c) The Bogoslof subarea of the management area means that portion of the EEZ contained in area I of Figure 1.

* * * * *

Non-pelagic trawl means a trawl which has discs, bobbins, rollers, or other chafe protection gear attached to the foot

rope, or which does not otherwise conform with the definition of a pelagic trawl contained in this paragraph.

* * * * *

Statistical area means any one of the twelve statistical areas of the Bering Sea and Aleutian Islands management area defined as follows:

* * *

(g) Statistical area 518 - south of straight lines connecting the following coordinates in the order listed:

55°46' N. 170°00' W.,

54°30' N. 167°00' W., then south to straight lines between the Aleutian Islands connecting the following coordinates in the order listed:

54° 23.9' N. 164° 44.0' W.,
54° 11.9' N. 165° 23.3' W.,
54° 08.9' N. 165° 38.8' W.,
54° 07.7' N. 165° 40.6' W.,
54° 02.9' N. 166° 03.0' W.,
53° 59.0' N. 166° 17.2' W.,
53° 23.8' N. 167° 50.1' W.,
53° 18.7' N. 167° 51.4' W.,
52° 49.8' N. 169° 06.3' W., and
52° 49.2' N. 169° 40.4' W.,
52° 49.2' N. 170° 00.0' W., then north to
55° 46.0' N. 170° 00.0' W.

(h) Statistical area 519 - the area bounded by the following coordinates in the order listed:

54°30' N. 167°00' W.,
54°30' N. 165°00' W.,
53°30' N. 167°00' W., and
54°30' N. 167°00' W.

* * * * *

[Add Figure 2 showing all BSAI reporting areas.]

8. §675.6 is added to read as follows:

§675.6 Experimental fisheries.

Regulations at 50 CFR part 672.6 **Experimental Fisheries**, apply and are incorporated by reference.

9. Paragraph 672.20(h)(2) is revised to read as follows:

§675.20 General limitations.

(h) * * *

(2) Using trawl gear for yellowfin sole, "other flatfish," or arrowtooth flounder. (i) Before the May 1 season starting date in §675.23(c). The operator of a vessel is engaged in directed fishing for yellowfin sole, "other flatfish," or arrowtooth flounder if he retains at any time during a trip an aggregate amount of yellowfin sole, "other flatfish," and arrowtooth flounder caught using trawl gear equal to or greater than a total of:

(A) 35 percent of the amount of rocksole retained at the same time on the vessel during the same trip, plus

(B) 20 percent of the total amount of other fish species (besides rock sole, yellowfin sole, "other flatfish," and arrowtooth flounder) retained at the same time by the vessel during the same trip.

(ii) On and after the May 1 season starting date in §675.23(c). The operator of a vessel is engaged in directed fishing for yellowfin sole, "other flatfish," or arrowtooth flounder if he retains at any particular time during a trip an amount of any one these species that is 20 percent or more of the total amount of other fish retained at the same time by the vessel during the same trip.

10. In §675.22, paragraph (f) is added to read as follows:

§675.22 Time and area closures.

* * * * *

(f) During April 1 through September 30 of any fishing year, vessels Federally permitted under §675.4 of this part are prohibited in that part of the Bering Sea subarea between three and twelve miles seaward of the baseline used to measure the Territorial Sea around islands named Round Island and The Twins as shown on National Ocean Survey Chart 16315, and around Cape

Peirce (58° 33' N. latitude, 161° 43' W. longitude) [insert Figure].

* * * * *

11. In §675.24, paragraph (a) is amended to read as follows:

§675.24 Gear limitations.

(a) Marking of gear. (1) All longline marker buoys carried aboard or used by any vessel regulated under this part shall be marked with at least one of the following:

- (i) The vessel's name; and
- (ii) The vessel's Federal permit number; or
- (iii) The vessel's registration number.

(2) Markings shall be in characters at least four inches in height and one-half inch in width in a contrasting color visible above the water line and shall be maintained in good condition.

(3) All pots carried aboard or used by any vessel regulated under this part shall be marked with a label that is maintained in good condition and which includes the word "groundfish".