AGENDA C-3
FEBRUARY 1998

MEMORANDUM

TO: Council, SSC and AP Members

FROM: Clarence G. Pautzke
Executive Director

DATE: February 2, 1998

SUBJECT: Inshore-Offshore 3

ESTIMATED TIME
8 HOURS

ACTION REQUIRED

Review progress on analyses and provide direction as necessary.

BACKGROUND

At the September 1997 meeting the Council developed a problem statement and set of alternatives for analysis. This issue was not on the Council's agenda in December, though we did present the SSC with preliminary information which focused on the variables and assumptions which will be used to complete the analytical package for review in April. Item C-3(a) is a copy of the December SSC comments on this issue.

As you may recall, last September we provided you with a 'profile package' of the BSAI pollock fisheries which included information from the 1991, 1994, and 1996 fisheries. The intent was to profile the evolution and current status of the BSAI pollock fisheries relative to a variety of issues including: number and size of operators in each relevant sector; harvest, product mix, and processing levels of each sector; bycatch, discards, and utilization indices; relative operational dependence; prices and product forms; employment patterns; CDQ program linkages; foreign ownership; tax issues; and CVOA considerations.

At that time there were several gaps remaining to be filled including: the foreign ownership information; further development of the CDQ program linkages, employment information (particularly for the offshore component), and both exvessel and wholesale price information. Ultimately this profile information will form a critical part of the overall analytical package and be included as an appendix to the main document. From these profiles we will construct a 'base case' picture of the fisheries against which to compare proposed alternatives, mainly composed of information and data from the 1996 fisheries. Detailed and accurate characterization of the current state of the fisheries, and the role of each sector, has been stressed by our SSC as perhaps the most critical part of the analysis, given limitations on making 'net benefit' assessments of the alternatives, or other bottom-line impact assessments. We feel this is an area where we can provide very useful information to the Council decision process. Our goal is to shed as much light as possible on each of the issues identified by the Council.

To that end we have developed a document titled 'Status Report on Baseline Information for the Inshore/Offshore 3 Analysis', which was mailed to you last week. This document incorporates the 'white paper' presented to the SSC in December, and further describes each of the assumptions and parameters of the analysis. It also includes selected parts from the 'profile package' we presented last September. This document will end up being the essence of our 'base case' (as well as status quo alternative) for the analysis. Projections of impacts of the alternatives will flow from this baseline information.

Our primary intent at this meeting is to update you on the status of each of these profile components, as well as other aspects of the analysis including a description of the variables and assumptions which will be used to complete the analysis. We also want to identifyJanuary 26, 1998 for you where gaps remain and whether and to what extent we anticipate being able to fill those gaps by April, including the issue of how to incorporate information submitted by industry.

There are two basic types of information we are dealing with: (1) information that exists in and of itself, and will not factor into further analyses - one example of this would be the vessel and processor ownership information. It is presented as information requested by the Council to depict the status of the fisheries, but does not factor into any quantitative projections; (2) information that is used to characterize the status quo, and will factor into further analysis and projections of impacts - for example, product mix and product prices are used to depict the base case and are used to project changes resulting from the alternatives. In either case we feel that now is the time to present the Council with as much detail as possible on these parameters, and get feedback on them before we complete the analysis for review in April.

Our overall effort on this project consists of several discrete, though related, components, undertaken by Council staff, NMFS staff, State agencies, and consultants. The document also addresses the status of these 'outside' efforts.

Public Comments

We have received numerous letters, mainly last fall, on the inshore-offshore issue. Under this tab I have placed several more substantial letters plus examples of many letters that were sent to Mr. Austin and forwarded to our office. The background materials to Finley's letter, and the many letters sent to Mr. Austin, are available in two special reference books. These are available from Helen Allen, our executive secretary.

[Excerpted from the December 1997 Minutes of the NPFMC Scientific and Statistical Committee]

Inshore/Offshore 3 Update:

Staff presentation was made by Chris Oliver and Darrell Brannan. Public testimony was given by John Gauvin (Groundfish Forum), Paul MacGregor and Ed Richardson (At-Sea Processors Association), and Rebecca Baldwin (North Pacific Seafood Coalition).

The SSC has the following general observations:

1) The analysts provide a valuable service to the Council community by laying out in detail the main parameters that go into an analysis of net benefits and distributional effects with associated uncertainty/controversy, and by laying out the assumptions they anticipate needing to make.

2) There is great latitude, generally, in the bases on which Council decisions can be justified and the degree of quantification which is possible and appropriate.

3) Adequate treatment of different sectors is an overriding consideration in constructing the analysis and report.

4) The SSC pointed out a number of areas where the document may be misinterpreted and made suggestions for specific modifications to the analysis.

Specific Observations:

1) There are no good bases or models for quantitatively predicting how patterns of product form, market share, prices, etc. may change. The analysis should consider variability and uncertainty in these parameter estimates.

2) A fundamental point is that by having to assume constant prices and ignoring changes in costs, as in Assumption 5, no new information is presented to the Council by calculating changes in gross earnings. Gross earnings changes are directly proportional to changes in quotas that result from the Council-preferred alternative.

3) Product Recovery Rates (PRRs) are variable, due to things such as sampling error in the estimates of total catch. They are also subject to change as industry learns and as importance of increased utilization is fully appreciated.

4) Changes in consumer's surplus will result partly from supply shifts due to the Council's choice of a preferred allocation. In some markets, consumer's surplus will increase, and in others it will decrease. It is not possible to net these out without information on the relevant demand and supply elasticities. A qualitative discussion of producer's surplus changes should also be included. However, it may not be possible to conclude what the net direction of impact will be.

5) Assumption 15 should be re-focused from "entry-exit" and "investment-disinvestment" issues to fishery substitution patterns that may be induced by different allocations, and given a higher priority in the analysis.

6) Exchange rate effects in foreign product markets should be qualitatively discussed.

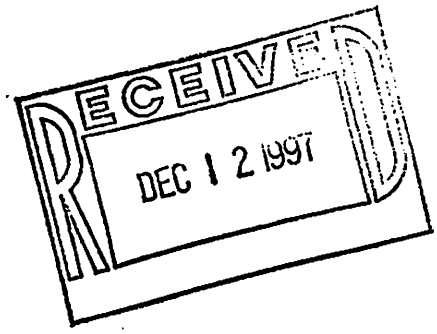
7) Regional shifts in taxes (landings, sales, corporate, income, etc.) are likely to result from changes in the allocation. These shifts may be difficult to trace, and likely represent second-order impacts.

8) The document should be careful to clearly define terms (e.g., what is meant by 'threshold analysis') so that they are understandable to all interested parties.

9) The issue of voluntary industry data submissions presents a challenge to the analysts. While the SSC welcomes and encourages industry cooperation, methods and standards for appropriate integration of such data into the analysis are not yet clearly established and will require further consideration by the staff and SSC.

STEPHEN FINLEY
12606 SE 30TH #3
BELLEVUE, WA 98005
(425) 643-6966

November 30, 1997



Mr. Richard Lauber
Chairman
North Pacific Fishery Management Council
605 West Fourth Avenue
Anchorage, Alaska 99501

Dear Mr. Lauber:

Inshore-Offshore Comments

Several newspaper accounts of the North Pacific Fishery Management Council (NPFMC) meeting in September of 1997 in Seattle reported that representatives of factory trawlers and American Seafoods testified as to the number of Alaskan jobs they provided. In light of these claims, members of the NPFMC and the Secretary of Commerce should be aware of the number of times American Seafoods has apparently lied to the United States Department of State, the United States Department of Labor, and the United States Immigration and Naturalization Service. Please include this letter in the inshore-offshore record to be reviewed by the Secretary of Commerce.

For your information I have enclosed two court documents that raise serious questions. A review of these documents appears to indicate that **American Seafoods and the law firm of Mundt, MacGregor, Happell, Falconer, Zulauff & Hall have repeatedly lied to U.S. Government officials to obtain guest worker visas and green cards for Norwegian citizens to work aboard American Seafoods factory trawlers**.

As part of the NPFMC's analysis to determine pollock allocations, the NPFMC and the Secretary of Commerce should have their lawyers review these documents to determine if any criminal laws were broken by statements made on sworn affidavits sent to U.S. Government officials to obtain guest worker visas and green cards for individuals to work aboard American Seafoods factory trawlers. Furthermore as part of your analysis the NPFMC should investigate all labor certifications issued by the U.S. Department of Labor H-2 visas and Green Cards for foreign employees of American Seafoods and other seafood companies to determine if any fraud occurred. In addition the NPFMC should also investigate all the treaty trader and treaty investor visas submitted to U.S. Embassies in Norway, Japan, and Korea to determine if American Seafoods and other seafoods companies submitted false affidavits or other documents to obtain guest worker visas for foreign workers to work in fisheries under the jurisdiction of the NPFMC.

Your economic analysis should also determine how many workers with guest worker visas work aboard factory trawlers and if their compensation should be subtracted from benefits credited to Washington State or any other state because the their salary is spent out of the United States.

The documents I have enclosed are from a lawsuit filed against American Seafoods by Brad Nabinger. Mr. Nabinger was an American Seafoods baader technician who was injured on the job. When he was ready to return to work, he was repeatedly told for over a year that there were no positions available. During the same period, American Seafoods sent visa applications prepared by Mundt MacGregor to the U.S. Embassy in Norway for baader technicians and applied to the Alaska Department of Labor for a labor certification to obtain a green cards for baader technicians. In all of signed affidavits that accompanied these applications American Seafoods stated that there were not any qualified Americans. Mr. Nabinger's lawsuit was settled out of court.

Deposition of Christopher Maltby

Page 3 of Mr. Maltby's deposition indicates he was the Human Resources Manager and handled the immigration work for American Seafoods.

Pages 6-8 of Mr. Maltby's deposition indicates that Mundt MacGregor secures visas for workers for a company called Alaska Net but the workers actually work for American Seafoods.

Page 9 of Mr. Maltby's deposition indicates that he **spends 30% of his time working on visas**.

Pages 11-12 of Mr. Maltby's deposition indicates that employees of Mundt MacGregor prepare the affidavit's he signs and the placement of advertisements for American Seafoods.

Page 20 of Mr. Maltby's deposition indicates that he would not have contacted Tammy Schwalbe in the personnel department, and there would have been **no way he would have had knowledge as to whether or not there were any Americans seeking the same position before he signed an affidavit stating that there were not any qualified Americans**.

Page 24 of Mr. Maltby's deposition indicates that Alaska Net does not have any offices or personnel anywhere.

Trial Brief in Brad Nabinger Case

Page 2 of the trial brief describes that a company called **Alaska Net Company, was established by American Seafoods for purpose of hiring non-Americans to serve on American Seafoods vessels and that Alaska Net has never hired an American**.

Pages 3 and 4 of the trial brief documents the chronology of events showing when Alaska Net and Janet Cheetham at Mundt MacGregor **submitted sworn affidavits to U.S. Government officials claiming that there were not qualified Americans to serve as baader technicians and the times when Mr. Nabinger contacted American Seafoods looking for a job**.

Page 6 of trial brief states that American Seafoods false representations to Alaska state officials let to a finding by the Alaska Department of Labor finding that one of the defendants' affiliates **failed to make "a good faith effort" in pursuing qualified American workers**.

For your information, I have also included June 21, 1993 article from The Seattle Times on the number of foreign workers hired for the fishing industry. This article reports that several companies -- such as Oceantrawl and Alaska Ocean -- do not have trouble finding qualified Americans to work aboard their vessels, however, the article also reports than many factory trawler companies will only give the "fish master" position to foreign workers and that the owners of the factory trawler OCEAN ROVER obtained a green card for an foreign licensed engineer to serve as an "engineering advisor" because he could "take better care of the european designed equipment". The article also reported that the engineering advisor position that many factory trawlers have is unnecessary.

Thank you for considering my comments.

Sincerely,

Stephen Finley

Enclosures

STEPHEN FINLEY
12606 SE 30TH #3
BELLEVUE, WA 98005
(425) 643-6966

November 15, 1997

Mr. Richard Lauber
Chairman
North Pacific Fishery Management Council
605 West Fourth Avenue
Anchorage, Alaska 99501

Dear Mr. Lauber:

Include Risk Analysis in Inshore-Offshore Analysis

As a result of the addition of National Standard #10 to the Magnuson-Stevens Fishery Conservation and Management Act which requires "Conservation and management measures shall, to the extent practicable, promote the safety of human life at sea" the North Pacific Fishery Management Council (NPFMC) should conduct a risk analysis to determine if continued offshore allocations increase the risk on injury of death. When conducting this analysis, the NPFMC should take into account the following:

(1) All of the current factory trawlers are exempt from U.S. Coast Guard inspection because they are less than 5,000 gross tons (GT). 46 U.S.C. 3302 exempts fish processing vessel less than 5,000 GT from U.S. Coast Guard (USCG) inspection requirements.

Because cargo and passenger vessels that are much smaller than many factory trawlers require U.S. Coast Guard inspection, the inshore-offshore analysis should **determine if any additional risks are placed on workers on uninspected fish processing vessels due to lack of USCG inspection**.

(2) All of the current factory trawlers are only required to have only two watches. 46 U.S.C. 8104 (l) allows licensed individuals to be divided into two watches. If the current factory trawlers were passenger or cargo vessels they would have to have three watches and the number of hours an officer can work per day while at-sea and in port would be limited (46 U.S.C. 8104). Moreover, many other occupations such as long haul truck drivers, airline pilots, flight attendants, and railroad engineers, are limited to working much less than the licensed officers on factory trawlers. As part of the inshore-offshore analysis, the NPFMC should **determine if the fact that licensed officers on factory trawlers usually, at a minimum, work twelve hour days, seven days a week, for periods of six to eight weeks, increases the risk to the crew members aboard the vessel**.

(3) Many fish processing vessels are being operated by unlicensed fish masters. Both the USCG and the National Transportation Safety Board (NTSB) have recommended tougher licensing standards. As was clearly documented in reports by the USCG and the NTSB in the sinking of the fish processing vessel the ALEUTIAN ENTERPRISE, operation of the trawl gear can endanger the safety of the vessel and the lives of the crew. According to the NTSB report:

> "The Safety Board believes that the master made an imprudent decision when he continued to raise the loaded net after the ALEUTIAN ENTERPRISE had listed to port. Once flooding occurred as a consequence of his actions, the capsizing could not be prevented. The Safety Board believes that had the master received formal vessel stability training, he would have been more conscious of the factors adversely affecting the vessel's stability."[1]

In the NTSB's report on the sinking of the fishing vessel AMAZING GRACE, the NTSB issued the following safety recommendation to the USCG:

> "Seek legislative authority to require the licensing of captains of commercial fishing vessels including a requirement that they demonstrate minimum qualifications in vessel safety including rules of the road, vessel stability, fire fighting, watertight integrity, and the use of lifesaving equipment."[2]

The NTSB also commented on the licensing of engineers in its report on the sinking of the ALEUTIAN ENTERPRISE:

> "For many years the Safety Board has believed that all commercial fishing industry vessels masters and also engineers should be required to have vessel stability training."[3]

The USCG's report on the sinking of the ALEUTIAN ENTERPRISE also made recommendations with regard to licensing of individuals on fishing industry vessels. The report states:

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[1]National Transportation Safety Board, Marine Accident Report, "Capsizing and Sinking of the Fish Processing Vessel ALEUTIAN ENTERPRISE in the Bering Sea March 22, 1990," PNB92-916403 NTSB/MAR-92/03, Page 31.

[2]National Transportation Safety Board Report, "Loss of the U.S. Fishing Vessel AMAZING GRACE about 80 Nautical Miles East of Cape Henlopen, Delaware, about November 14, 1984" NTSB/MAR-85/07.

[3]NTSB, ALEUTIAN ENTERPRISE, page 31.

> "The Coast Guard should develop a stability examination specifically for masters and mates of fishing industry vessels that are load-lined or subject to the requirements of the Officers Competency Certifications Convention of 1936. It should cover the fishing industry operational stability issues of loading at sea, loose processing water, and maintaining water tight integrity.
>
> The Coast Guard should require that masters and mates pass a fishing industry vessel stability examination, and have an endorsement on their licenses attesting to this fact prior to the service on fishing industry vessels. This requirement should apply to all individuals who desire to server on fishing industry vessels under the authority of their master's or mates's inspected or uninspected licenses."[4]

Admiral Kime, then the Commandant of the USCG in his evaluation of the USCG report on the sinking of the ALEUTIAN ENTERPRISE stated:

> "The U.S.C.G should require that load-lined fishing industry vessels employ a licensed master, mate and chief engineer while under way. The sophistication of systems and operations of load-lined fishing industry vessels requires a level of qualifications not recognized under the existing licensing schemes; and
>
> The U.S.G.G. should develop a stability examination specifically for masters and mates of fishing industry vessels that are load-lined or subject to the requirements of the Officers Competency Certificators Conventions of 1936. It should cover the fishing industry operational stability issues of loading at sea, loose processing water, and maintaining watertight integrity; and
>
> The U.S.G.C. should require that masters and mates pass a fishing industry vessel stability examination and have an endorsement on their licenses attesting to this fact prior to service on fishing industry vessels. This requirement should apply to all individuals who desire to serve on a fishing vessels under the authority of their master's or mate's inspected or uninspected licenses."[5]

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[4]U.S. Coast Guard, Marine Casualty Report, Uninspected Fish Processing Vessel ALEUTIAN ENTERPRISE Flooding capsizing, and sinking in the Bering Sea on March 22, 1990, with nine persons missing and presumed dead, U.S. Coast Guard Marine Board of Investigation Report, November 6, 1990, page 139 and 140, recommendations 12 and 13.

[5]U.S. Coast Guard, Office of the Commandant, Commandant's Action on The Marine Board of Investigation convened to investigate the circumstances surrounding the capsizing and sinking of the uninspected fish processing vessel ALEUTIAN ENTERPRISE in the Bering Se on 22 March 1990 with multiple loss of life, April 7, 1991, page 7,

Ironically, **many of the large fish processing vessels operating in the Bering Sea use unlicensed fish masters or fishing advisors to operate the fishing gear and unlicensed engineering advisors to supervise the engine room, do not even meet the standards of the ALEUTIAN ENTERPRISE which both the USCG and the NTSB determined was unacceptable**.

In addition, the USCG believes using unlicensed fish masters is a safety problem. According to LtCdr. Glen Sicks, the USCG's former fishing-vessel safety coordinator in Alaska:

> "Having competing sets of officers is a safety hazard."[6]

Therefore, the inshore-offshore analysis should include **an analysis of the additional risk faced by workers on fish processing vessels from vessels being operated by unlicensed individuals that do not meet either the inadequate licensing and training standards of the ALEUTIAN ENTERPRISE or licensing and training standards recommended by the USCG and the NTSB**.

(4) The majority of the operations of factory trawlers are exempt from inspections by the U.S. Department of Labor's Occupational Safety and Health Administration (OSHA). According to Barry C. Noll of OSHA's Anchorage, Alaska office, OSHA's jurisdiction is limited to a state's territorial waters which are considered to extend 3-nautical miles seaward from the coastline when vessels are involved in longshoring operations.[7]

Regardless of the fact, that all of a factory trawler's fish processing activities are not subject to OSHA inspection, **factory trawlers that process pollock have substantially more serious OSHA violations than shore-based pollock processing plants**. This is a serious problem because according to OSHA **"A serious violation exists when the work-place hazard could cause an accident or illness that would most likely result in death or serious physical harm."**[8]

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recommendations 11, 12, & 13.

[6]*Seattle Times*, Monday, June 21, 1993, Page A-7, Fishing Industry Leads in Foreign Hires," by Eric Nalder.

[7]National Fishing Industry Safety and Health Workshop, U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health, October 9-11, 1992, Anchorage, Alaska, page 87.

[8]Employer Rights and Responsibilities Following an OSHA Inspection, OSHA 3000, 1996, (Revised), U.S. Department of Labor, Occupational Safety and Health Administration, page 3.

According to information reported in the newspapers and provided by OSHA, OSHA has had a difficult time inspecting factory trawlers. The *Seattle Times* reported that the Alaskan Factory Trawler Assn. (previous name of the American Factory Trawler Assn. and At-Sea Processors Assn.) contended that catcher-processors are exempt from Labor Department safety regulations.[9] According to OSHA, OSHA inspectors were denied access to conduct inspections on factory trawlers on three occasions between January 1, 1992 and May 21, 1997. During the same period of time OSHA inspectors were not denied access to shore-based pollock processing plants.[10]

Instances Between January 1, 1992 and May 21, 1997 When OSHA Inspectors Were Denied Access to Factory Trawlers

January 24, 1992	F/T AMERICAN EMPRESS (American Seafoods)
February 25, 1993	F/T ARCTIC TRAWLER (Arctic King Fisheries)
June 30, 1994	F/T NORTHERN HAWK (Oceantrawl)

OSHA Inspections in Shore-based Pollock Processing Plants[11]

Westward Seafoods	03/12/94	0	0	$0
Unisea	03/21/94	0	0	$0
Trident Seafoods	04/03/93	0	0	$0
Alyeska Seafoods	05/26/93	0	0	$0
Westward Seafoods	02/05/93	8	0	$1,600

[9]OSHA Faces Tough Time Inspecting Fishing Fleet, *The Seattle Times*, April 26, 1990, page C-9.

[10]U.S. Department of Labor, Occupational Safety and Health Administration, 301 W. Northern Lights Blvd., #407, Anchorage, Alaska 99503, Freedom of Information Act Request 97-9, May 21, 1997.

[11]OSHA FOIA 97-9.

OSHA Inspections of Pollock Processing Vessels[12]

Vessel	Date	Serious Violations	Repeat Violations	Fine
NORTHERN HAWK	04/08/97	6	6	$35,700
OCEAN ROVER	04/08/97	2	9	$46,500
PACIFIC SCOUT	04/08/97	2	5	$39,500
PACIFIC GLACIER	04/02/97	2	0	$900
BRISTOL ENTERPRISE	02/14/97	0	0	$0
ALASKA OCEAN	02/11/97	9	0	$3,375
NORTHERN JEAGER	08/09/96	7	4	$18,000
AMERICAN DYNASTY	03/29/96	12	4	$24,500
ENDURANCE	03/19/96	7	0	$1,750
HIGHLAND LIGHT	08/15/95	6	0	$2,000
NORTHERN HAWK	09/08/94	11	0	$4,400
PACIFIC EXPLORER	05/15/94	21	0	$20,000
PACIFIC SCOUT	04/15/94	14	0	$17,500
HARVESTER ENTERPRISE	04/01/94	3	5	$28,500
PACIFIC ORION	05/10/93	28	4	$18,550
ARCTIC STORM	05/17/93	28	0	$10,125
NORTHERN GLACIER	05/17/93	15	0	$6,750
AMERICAN EMPRESS	05/07/93	32	0	$20,700
PACIFIC ORION	03/27/93	15	0	$5,100

[12]OSHA FOIA 97-9.

These OSHA inspection statistics indicate that limited inspections of pollock processing factory trawlers have many more serious violations than complete inspections of shore-based pollock processing plants. Moreover, while OSHA has inspected 100% of the shore-based pollock processing capacity in the Bering Sea, only about one-third of the at-sea pollock processing capacity has been inspected.

Therefore, **based on these OSHA inspection statistics, the inshore-offshore analysis should determine if there is a greater risk to worker safety processing pollock at-sea**.

Thank you for considering my comments.

Sincerely,

Stephen Finley

ALASKA MUNICIPAL LEAGUE

217 Second Street, Suite 200 ■ Juneau, Alaska 99801 ■ Tel (907) 586-1325, Fax (907) 463-5480

January 8, 1998

Mr. Clarence Pautzke, Executive Director
North Pacific Fishery Management Council
605 West 4th Avenue, Suite 308
Anchorage, Alaska 99501-2252

Dear Mr. Pautzke:

At its recent annual meeting, the Alaska Municipal League passed Resolution 98-10, "A Resolution Requesting that the North Pacific Fishery Management Council Analyze Data and Information Reflecting the Current Status of the Bering Sea/Aleutian Islands Pollock Fishery before Allocating the Resources, Supporting Reauthorization of the Existing Pollock CDQ Program, and a Rollover of the Existing Allocations of Pollock and Cod for the Gulf of Alaska." A copy is enclosed for your review.

I hope we can count on the North Pacific Fishery Management Council's support; I assure you that members of the Alaska Municipal League are ready to help in any way we can. If you have questions, you may contact me at 586-1325.

Sincerely,

Kevin

Kevin Ritchie
Executive Director

Enclosures as stated

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RESOLUTION OF THE ALASKA MUNICIPAL LEAGUE

RESOLUTION 98-10

A RESOLUTION REQUESTING THAT THE NORTH PACIFIC FISHERY MANAGEMENT COUNCIL ANALYZE DATA AND INFORMATION REFLECTING THE CURRENT STATUS OF THE BERING SEA/ALEUTIAN ISLANDS POLLOCK FISHERY BEFORE ALLOCATING THE RESOURCE, SUPPORTING REAUTHORIZATION OF THE EXISTING POLLOCK CDQ PROGRAM, AND A ROLLOVER OF THE EXISTING ALLOCATIONS OF POLLOCK AND COD FOR THE GULF OF ALASKA

WHEREAS, the current inshore/offshore allocation is scheduled to expire at the end of 1998; and

WHEREAS, the current formula for the BSAI of 65% dedicated to the offshore sector and 35% for the onshore sector and 100% of pollock and 90% of cod for the Gulf of Alaska has been in place since 1992; and

WHEREAS, the current inshore/offshore allocation system has resulted in a strong and healthy CDQ program; and

WHEREAS, the comprehensive data on the effects of the current allocation were not available at the time it was reauthorized by the Council and there are now five years of experience under the current formula; and

WHEREAS, at the June meeting of the NPFMC the Council received reports from staff, the Scientific and Statistical Committee, Advisory Panel and testimony from the public on the inshore/offshore allocation of pollock in the Bering Sea which indicated a need for additional information and which reflected a range of opinions on what alternatives should be considered when reauthorizing the allocation for the BSAI area; and

WHEREAS, another rollover without analysis of the current allocation would ignore the changes to the fishery as a result of the existing allocation and evidence of the changing nature of the industry that harvests this highly valuable pollock resource; and

WHEREAS, the Magnuson-Stevens Act was recently amended and is the new law for management of our nation's fisheries; and

WHEREAS, included in the Magnuson-Stevens Act, Section 301, National Standards, are provisions that take into account the importance of fishery resources to fishing communities in order to provide for the sustained participation of such communities, and to the extent practicable, minimize adverse economic impacts on such communities; and

WHEREAS, the pollock allocation for BSAI and the GOA is critical to the continued economic viability of coastal communities, especially the CDQ communities; and

WHEREAS, the BSAI Pollock CDQ program has been a success, leading to the participation of the Bering Sea coastal communities in the fishing industry of the Bering Sea, creating employment opportunities, increased and stabilized revenues that will result in increased community stability and long-term viability; and

WHEREAS, the shore based plants, fishing fleets that deliver in coastal communities, and at sea processors that land product in coastal communities, contribute millions of dollars annually to the State of Alaska and coastal communities through property taxes, local and state-shared fish tax, sales tax, employment opportunities, and other social benefits; and

WHEREAS, the inshore/offshore pollock allocation system provides a stable source of jobs and other economic opportunities for Western Alaska fishermen and fishery-dependent communities in the Bering Sea pollock fishery;

NOW, THEREFORE, BE IT RESOLVED that the Alaska Municipal League requests that the North Pacific Fishery Management Council analyze data and information reflecting the current status of the Bering Sea / Aleutian Islands pollock fishery and the effects of any changes to the current allocation formula before allocating the resource, supports the reauthorization of the pollock CDQ program in the Bering Sea, and supports the reauthorization of the existing Gulf of Alaska allocation for pollock and cod, for the following reasons:

1. Compliance with the Magnuson-Stevens Act
2. To recognize changes in the BSAI pollock fishery since 1992
3. Importance of the allocation to the continued economic viability of coastal communities.

PASSED and APPROVED November 14, 1997.

Karen Parr, President

ATTEST:

Kevin Ritchie, Executive Director

ALEUTIANS EAST BOROUGH

SERVING THE COMMUNITIES OF
■ KING COVE ■ SAND POINT ■ AKUTAN ■ COLD BAY ■ FALSE PASS ■ NELSON LAGOON

November 4, 1997

Mr. Rick Lauber, Chairman
North Pacific Fishery Management Council
P.O. Box 103136
Anchorage, AK 99510

Dear Mr. Lauber:

Now that analysis is ongoing on the inshore/offshore allocation system, the Aleutians East Borough wishes to express its support for the inshore processing sector. The Borough Assembly is confident that the analysis, when completed, will support an increased inshore allocation.

For many of the communities in the Aleutians East Borough, the inshore processing industry is a key to economic survival. Without a steady stream of income in the form of sales tax, retail sales, and potential jobs as crew members, the economic viability of these communities is in question.

To this end it is urging the North Pacific Fishery Management Council to award the maximum amount of Bering Sea/Aleutian Island pollock to the inshore factor and maintain the status quo in the Gulf of Alaska.

Please find attached Resolution 98-7 supporting our position.

Sincerely,

for Dick Jacobsen
Mayor

Enclosure as indicated

CLERK/PLANNER
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ALEUTIANS EAST BOROUGH

SERVING THE COMMUNITIES OF
■ KING COVE ■ SAND POINT ■ AKUTAN ■ COLD BAY ■ FALSE PASS ■ NELSON LAGOON

Resolution 98-7

A RESOLUTION OF THE ALEUTIANS EAST BOROUGH SUPPORTING THE CONTINUATION OF THE CURRENT ALLOCATION OF POLLOCK AND PACIFIC COD TO SHORE BASED PROCESSING PLANTS IN THE GULF OF ALASKA AND AN INCREASED ALLOCATION OF POLLOCK TO SHORE BASED PROCESSING PLANT FROM THE BERING SEA/ALEUTIAN ISLANDS.

WHEREAS, shore based processing plants provide markets to local vessels fishing for pollock and P. cod in the Gulf of Alaska; and,

WHEREAS, Gulf of Alaska pollock and P. cod have become an important component of the local fishing fleet as a result of the declining value of the salmon fishery; and,

WHEREAS, local vessels fishing in the Gulf of Alaska provide employment opportunities to resident fishers and essential tax revenues to local communities and the Aleutians East Borough; and,

WHEREAS, the North Pacific Fishery Management Council originally approved an allocation of 45% of the pollock in the Bering Sea/Aleutian Islands to vessels that delivered to shore based processing plants; and,

WHEREAS, the U.S. Secretary of Commerce reduced the shore based allocation to 35% of the pollock in the Bering Sea Aleutian Islands; and,

WHEREAS, over capitalization of the off shore, factory trawler fleet has wasted millions of pounds of fish annually; and,

WHEREAS, the factory trawler fleet was designed to fish anywhere in the world; and,

WHEREAS, the Aleutians East Borough and its communities rely on the shore based plants which process Bering Sea/Aleutian Island pollock for employment opportunities, retail sales and taxes as a result of that processing activity; and,

WHEREAS, the benefits which would have accrued to the local communities and the Aleutians East Borough were diminished by the U.S. Secretary of Commerce's decision; and,

WHEREAS, the Magnuson-Stevens Act requires that fishery management measures "take into account the importance of fishery resources to fishing communities in order to provide for the sustained participation of such communities".

CLERK/PLANNER
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SAND POINT, ALASKA 99661
(907) 383-2699
(907) 383-3496 FAX

BOROUGH ADMINISTRATOR
1600 A STREET, SUITE 103
ANCHORAGE, ALASKA 99501-5146
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FINANCE DIRECTOR
P.O. BOX 49
KING COVE, ALASKA 99612
(907) 497-2588
(907) 497-2386 FAX

NOW THEREFORE BE IT RESOLVED by the Aleutians East Borough Assembly that the North Pacific Fishery Management Council is urged to:

1. Maintain the status quo in Gulf of Alaska by continuing to allocate 100% of the pollock and 90% of the P. cod in the Gulf of Alaska management area to shore based processing plants.

2. Allocate the maximum amount of pollock in the Bering Sea/Aleutian Island management area to shore based processing plants which can be supported by the Council's ongoing analysis.

ADOPTED THIS 13 DAY OF OCTOBER, 1997.

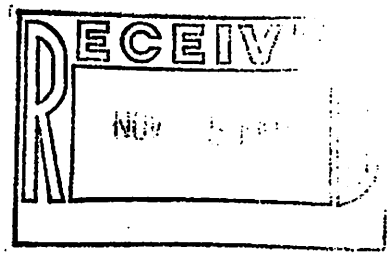
MAYOR

ATTEST:

Borough Clerk

State of Washington
DEPARTMENT OF FISH AND WILDLIFE

Mailing Address: 600 Capitol Way N • Olympia, WA 98501-1091 • (360) 902-2200, TDD (360) 902-2207
Main Office Location: Natural Resources Building • 1111 Washington Street SE • Olympia, WA



October 31, 1997

Mr. Clarence Pautzke, Executive Director
North Pacific Fishery Management Council
605 West 4th Avenue, Room 306
Anchorage, Alaska 99501

Dear Mr. Pautzke:

I have received in excess of 60 letters from individuals expressing their concern for continued employment if the inshore processing allocation of Bering Sea pollock is increased and the offshore processing allocation is decreased. The letters are from individuals that are crew members of factory/trawler vessels.

Given the scope of the inshore/offshore Bering Sea pollock issue, I believe all Council members should be aware of this correspondence and that these letters should become part of the public record; therefore, I am forwarding the letters to you. I have responded to each of these individual letters (copy of response enclosed) and do not believe the letters need further acknowledgment.

If you have any questions, please feel free to call me at (360) 902-2627.

Sincerely,

A. Dennis Austin
Policy Coordinator
Interjurisdictional Resource Management

ADA:mkr

Enclosures

October 31, 1997

Mr. FIELD(first name) FIELD(last name)
FIELD(street address)
FIELD(city,state,zip)

Dear Mr. FIELD(last name):

I have read your letter expressing your concern over the economic impact to the offshore industry resulting from an increased allocation of Bering Sea pollock to the inshore processing industry. I understand you support maintaining the current 35/65 percent inshore/offshore allocation.

It is the primary goal of the Washington Department of Fish and Wildlife to maintain strong, healthy fish stocks to provide economically viable fisheries. The Department supports resolution of fish allocation issues which optimizes the economic interests and encourages social stability of the Washington-based fishing industry and promotes sound conservation principles.

During the recent deliberations of the North Pacific Fishery Management Council, I have found it difficult to identify a problem within the pollock fishing industry that could be resolved simply by a reallocation of the fish from offshore processing to inshore processing. The objectives identified for the current allocation scheme appear to have been achieved: Protection of the catcher boats from preemption by the factory/trawlers; provision for protected access for coastal communities; and stability within the industry.

As a result of the options adopted for consideration at the meeting in September, the Council will receive a benefit/cost analysis at its April 1998 meeting. The Council will then identify a preferred option and release the analysis for public comment. I have forwarded your letter to the Council for its consideration. The final decision will be made at the Council meeting in June 1998.

Sincerely,

A. Dennis Austin
Policy Coordinator
Interjurisdictional Resource Management

ADA:mkr
cc: Clarence Pautzke, NPFMC
Fish and Wildlife Commission
Bern Shanks

SCOTT WOODALL
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#243
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ST. PETE, FL 33713

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SEATTLE, WA 98106

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MICHAEL KRALJEVICH
4020 - 33RD STREET
ANACORTES, WA 98221

October 11, 1997

Dennis Austin
Member NPFMC
Washington Dept. of Fish and Wildlife
600 Capitol Way N.
Olympia, WA 98501-1091

Dear Mr. Austin:

Having worked for a number of years in the fishing industry of Alaska, I am proud to say that I have been a part of the effort to build a fleet of ships that provide people with a quality frozen product and a t a decent price. At the same time I have been able to provide for my family a reasonable living. All that is now threatened, and it is my understanding that you can do something about it.

As a member of the Council that decides just how the Alaskan pollock quota will be divided, you hold the future of thousands of people in your hands. I work on a factory trawler, and if the factory trawler sector of the industry loses more quota, my livelihood will be threatened.

I have looked at both sides as best I can, and what I see is this: on the one side you have a few rich corporations from Japan that will stand to benefit hugely from the gift if greater allocation , and on the other you have several thousand individuals who make a halfway decent living (none of are getting rich out here....) who would lose their jobs if the quota was substantially reduced for the offshore sector. And the argument that giving the quota to the onshore just doesn't wash -- look at what happens when shore-plants are the only game in town -- strikes, abysmal prices. So the small vessel owners would not benefit either.

It seems to me that things are fine the way they are. The shore plants are making a living, the offshore sector is making a living, the Western Alaskan Communities are making a living from the CDQ -- why change it?

Please consider all of this when it comes time to cast your vote. Thanks.

Sincerely,

JOHANNES HAILE
10740 8TH AVE. NE #117
Seattle WA 98125
(206) 363-0338

James M Walls
3114 NW Lakeness Rd.
Poulsbo WA. 98971
360 – 394 – 1764

For the Future of AMERICAN Jobs and livelihood

Dear Sir or Madams:

I am writing this letter in hope and to plead to you that you will not agree with the lobbying attempt by the JAPANESE Owned shore–based fish plants trying to persuade the NPFMC to reduce the quota of allowable Pollock stocks available to the Bering Sea factory trawler fleet. Surely you must know how many Americans jobs and lives this would affect if this measure were allowed to be passed. Untold numbers of hard working, tax paying American citizens would be wiped out of jobs by a change in the allowable amount of resource that we now have.

This industry has been able to offer its employee's a wage base many times that of which they could expect to earn at shore based operation. Thus our quality of life has improved, our family's quality of life has improved and what we are able to give back to our communities as a viable hard-working citizen has improved as well. Please don't let them take this away. For most of us this is all we know and do you know how much impact this will have on the state in which we live in, on unemployment, welfare, job re-training and job replacement. And for what?

The only issues being argued here are the one's concerning the fact that the Japanese owned shore-based plants (that don't hire Americans) want more fish in order to make more money. I do not believe in any way that any hard working Americans will reap the benefits of a quota change, and that includes the shore-based employees as well as the at sea employees. The only ones that will profit from this proposition are the executives, which control and operate the shore-based companies. I myself and those I work with urge and plead to you to be heard on this issue and support a rollover of the current in-shore, off-shore allocations. Our lives as well as are family's lives depend on it. Please help America.

Sincerely,

James M Walls
F/T Pacific Scout

James M Walls

October 11,1997

Mr. Dennis Austin
Washington Department of Fish and Wildlife
600 Capitol Way North
Olympia, WA 98501-1091

Dear Mr. Austin,

I am writing to you today regarding the Inshore and Offshore Pollock quota that offshore factory trawlers and inshore seafood processors and plants depend upon to process Pollock seafood products.

In the spring of 1998, The North Pacific Fishery Management Council will vote to decide the division of this Pollock quota from the Federal waters off the state of Alaska between the inshore and offshore sectors. In the past years, the division has been 65% offshore and 35% for the inshore group. The offshore group consists of numerous factory trawlers owned by American companies; many of which are based out of Washington State. It is my understanding that almost 90% of the Inshore processors and plants are foreign owned, mainly by large Japanese companies who pay minimum wage to the few Alaskan and Washington residents it employs. The inshore sector is also being strongly supported by Senator Ted Stevens of Alaska.

I am a Washington State resident and depend upon my career in the Offshore factory trawler fishery. Working in this industry has provided me with stability and an opportunity to provide for myself and my family.

Please support the offshore factory trawler industry in any way you can and save hundreds of jobs for the residents of Washington state as well as the numerous Washington state based Fishing Companies.

Thank you for your consideration.

Sincerely, Minh Pham

F/T PACIFIC NAVIGATOR
American Seafoods Company

Fr: Minh Pham Van
8826 14th Ave SW
Seattle Wa 98106

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Christopher R. M. Stanton
Libby A. Williams

January 28, 1998

Mr. Richard Lauber, Chairman
North Pacific Fishery Management Council
605 West Fourth Avenue
Anchorage, Alaska 99501

SENT VIA FAX

Re: Inshore-Offshore Pollock Allocation Analysis

Dear Mr. Lauber:

I am writing in response to the letter dated November 30, 1997 submitted by a Mr. Stephen Finley in connection with the inshore-offshore agenda item. In his letter, Mr. Finley alleges that in 1993, Mundt MacGregor improperly submitted a visa application for a Baader technician on behalf of American Seafoods Company. Mr. Finley's allegation is simply wrong. Mundt MacGregor has not and would not submit an improper application.

To put this matter in perspective, you should be aware of several facts not reflected in Mr. Finley's letter. First, Mr. Finley was once employed by Emerald Resource Management, Inc. ("ERM"), the former manager of the offshore factory trawlers SAGA SEA, HEATHER SEA and CLAYMORE SEA. When Mr. Finley's position at ERM was eliminated, Mr. Finley sued the company for unlawful termination. Mundt MacGregor represented ERM in defending this claim and for this and possibly unknown other reasons, Mr. Finley apparently now holds a personal grudge against both the offshore fleet and the Mundt MacGregor law firm.

Second, the support offered by Mr. Finley for his allegations consists of excerpts from a legal brief submitted on behalf of Mr. Brad Nabinger, an individual who at the time was the plaintiff in a pending civil lawsuit against American Seafoods Company. In light of the adverse relationship between the parties, the self-serving contentions in Mr. Nabinger's legal brief, which were disputed by the Company, do not establish the facts of the matter. We categorically deny the allegations in Mr. Finley's letter.

Third, the allegations asserted by Mr. Finley with respect to this law firm are directed at Ms. Janet Cheetham. Janet is unquestionably one of the most professional and highly regarded immigration attorneys in the City of Seattle and the seafood industry. Janet has practiced immigration law continuously since 1981 and is a certified specialist in the field. She is currently listed in The Best Lawyers in America, 1997-1998, as one of the five best immigration lawyers in Seattle. She served as the President of the Washington Chapter of the American Immigration Lawyers Association ("AILA") in 1996/1997 and was a member of AILA's National Board of Governors. She has served since 1994 as the AILA representative on the Seafood Industry/U.S. Department of Labor Working Committee, a committee which meets regularly to address seafood industry immigration issues. Ms. Cheetham is a regular speaker at immigration seminars and lecture series across the United States. Her seafood-related clients come from every facet of the industry, inshore and offshore, and across all gear types and processing modes. Janet's professional integrity and personal reputation are built on high standards and a consistent commitment to full compliance with the immigration laws. It would be an understatement to say that we are displeased with the reckless statements about Janet in Mr. Finley's letter.

As you are aware, skilled foreign workers were critical to the rapid development of the U.S. fishing industry. Although their overall numbers have declined significantly, companies in both the inshore and offshore components continue to utilize these skilled foreign workers to enable them to compete more effectively in the global seafood market. If the Council concludes that the presence of non-citizen workers in the pollock processing industry warrants consideration as part of the inshore-offshore analysis, Mundt MacGregor would be pleased to be of assistance in such an exercise.

Sincerely yours,

MUNDT MacGREGOR L.L.P.

Henry H. Happel

MJH:mg
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Status Report on Baseline Information for the Inshore/Offshore 3 Analysis (information as of January 27, 1998)

Prepared by staff of the
North Pacific Fishery Management Council
and
National Marine Fisheries Service

January 27, 1998

Table of Contents

Introduction

Inshore/Offshore (I/O) allocations of the pollock TAC were originally established under Amendments 18/23 to the Bering Sea/Aleutian Island and Gulf of Alaska Fishery Management Plans, respectively.[1] The allocations were subsequently "rolled over" by the Council in Amendments 38/40 to the respective FMPs. Both the original amendments and the roll over amendments contained "sunset" provisions, requiring the Council to reexamine the allocations, or see them expire. The current I/O management program will sunset January 1, 1999, without Council action.

At its September 1997 meeting, the Council adopted a Problem Statement (with an associated set of alternatives) to examine the inshore/offshore pollock allocation, within "current" biological, economic, social, and regulatory contexts. This proposal has been dubbed *Inshore/Offshore Three* (I/O3).

The Council proposed that an analysis be undertaken to examine I/O3 alternatives which include, continuation of the existing sector-share allocations and, in the case of the BSAI management area, a series of changes in allocation shares and sector definitions, as well as possible changes in 'reserved-area' boundaries and access (i.e., management of the CVOA). In response, the Council staff has initiated development of an EA/RIR/RFA, to assist the Council in its deliberations and to permit the Council to take action on I/O3, prior to its scheduled "sunset", if deemed appropriate.

Those scientists contributing to the development of the preliminary EA/RIR/IRFA analysis have examined the Council's 'problem statement' and the historical context within which I/O3 has been proposed. On the basis of this initial review, a series of conclusions has been drawn concerning the dimensions, analytical approaches, and limitations of the supporting analysis, requested by the Council. These are summarized below, and include the relevant sections from our report to the SSC in December.

What the analytical team is seeking at this time is either concurrence with the basic assumptions, variables, and approaches proposed, or specific guidance as to viable alternatives to these, given the time, data, and analytical resource limitations associated with this task.

Table 1 (see page 5) lists the main parameters, or issues, which have been identified and which will factor into the analyses. The purpose of this document is to illuminate for the Council what we know about each, at this point in the analytical process. Essentially this information will comprise the 'Base Case' (current state of the fisheries), as well as the 'Status Quo' alternative. The Table on page 5 does not necessarily reflect every issue which has been raised - we hope to address those additional issues in the latter part of this document. Some of the following information is summarized from the 'fishery profiles' we presented in September. The full profiles, some portions of which are still incomplete, will be contained as an Appendix to the main document for review in April.

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[1] In the GOA, the Pacific cod TAC was also apportioned between 'inshore' and 'offshore' sectors under the I/O amendment.

Problem Statement and Alternatives

GOA Problem Statement:

Allowing the current Gulf of Alaska Inshore/Offshore allocative regime to expire December 31, 1998, would allow the same preemption of resident fleets by factory trawlers in the pollock and Pacific cod fisheries which occurred in 1989. It was this dramatic preemption which triggered the original proposal for an inshore/offshore allocation. In 1989, there was still pollock available in the Bering Sea when the preemption occurred when vessels moved into the Gulf to take advantage of fish with high roe content.

A rollover of the current Gulf of Alaska inshore/offshore program which allocates 100% of the pollock and 90% of the Pacific cod to shore-based operations is a proactive action to prevent the reoccurrence of the original problem.

BSAI Problem Statement:

The current inshore/offshore allocation expires at the end of 1998. The Council thus faces an inevitable allocation decision regarding the best use of the pollock resource. Many of the issues that originally prompted the Council to adopt an inshore/offshore allocation (e.g., concerns for preemption, coastal community dependency, and stability), resurface with the specter of expiration of the current allocation.

The current allocation was made on the basis of several critical assumptions including utilization rates, foreign ownership, the balance between social gains and assumed economic losses to the nation, and the nature of progress on the Council's Comprehensive Rationalization Program (CRP) initiative. Many of these assumptions have not been revisited since approval of the original amendment. It is not clear that these assumptions hold or that the Council and the nation are well-served by continuing to manage the pollock fishery without a reexamination of allocation options. The Magnuson-Stevens Act presents the Council with a new source of guidance to evaluate national benefits. In the context of Council deliberations over Inshore-Offshore 3, this includes enhanced statutory emphasis on increased utilization, reduction of waste, and fishing communities.

There have also been substantial changes in the structure and characteristics of the affected industry sectors including number of operations, comparative utilization rates, and outmigration and concentration of capital. These changes are associated with issues, including: optimization of food production resulting from wide differences in pollock utilization; shares of pollock harvesting and processing; discards of usable pollock protein, reliance on pollock by fishing communities; and decreases in the total allowable catch of pollock. In addition, changes in fishing patterns could lead to local depletion of pollock stocks or other behavioral impacts to stocks which may negatively impact Steller sea lions and other ecosystem components dependent upon stock availability during critical seasons.

Therefore, the problem facing the Council is to identify what allocation would best serve to ensure compliance with the new Act and address the issues identified above.

Alternatives for Analysis:

Alternative 1: No action.

Alternative 2: Rollover existing inshore/offshore program, including:
GOA pollock (100% inshore) and Pacific cod (90% inshore) allocations
BSAI pollock (35% inshore, 65% offshore) allocation
suboption a: 1-year rollover
suboption b: 3-year rollover

Alternative 3: Allocation range (BSAI only) of following percentages:

Option:	A	B	C	D
Inshore sector	25	30	40	45
True Motherships	05	10	10	15
Offshore sector	70	60	50	40

Staff intends to look at these ranges as four separate allocation alternatives. However, it is the Council's intent that these be considered as bounds for the allocation, and that the Council may select any allocation that falls within the bounds of the study. Therefore, the Council may select as its preferred alternative any allocation that issues the Inshore sector 25-45%, True Motherships 5-15%, and the Offshore sector 40-70% of the BSAI pollock quota. The Council wants to emphasize to the public that this wide range of allocations is for analysis and does not necessarily signal that the Council will choose such a wide divergence from status quo when the final decision is made next June.

Option: Establish a reserve set aside for catcher vessels less than 125 feet. The range considered for this set aside is 40-65% of the inshore and "true mothership" sector quotas. This range is based on the percentage of harvest that these smaller catcher vessels accounted for between 1991 and 1996.

Allocations would be analyzed such that the True Motherships (which could operate in the BSAI only) would be looked at as a sub-component of either the inshore or offshore component or as a separate component.

Option: Nine to 15% of the offshore quota shall be reserved for catcher vessels delivering to catcher processors. This is in addition to the allocation that catcher vessels may receive under the "True Motherships" and Inshore sectors.

The definitions provided by staff for the Inshore, Offshore, Catcher Vessel, and True Mothership sectors will be used in this analysis. These same definitions were used in the sector profiles developed for the Council, and presented at the September meeting. Those breakdowns include:

Catcher Vessels:
- < 125' Length Overall (LOA)
- 125' through 155' LOA
- > 155' LOA

Inshore Processors:
- Surimi Capability
- No Surimi Capability

Catcher Processors:

- Surimi Capability
- No Surimi Capability

True Motherships:

A vessel that has processed, but never caught, pollock in a "pollock target" fishery in the BSAI EEZ.

Also included as options under Alternative 2 and Alternative 3:

1. Catcher vessel operational area (CVOA) Issues:
   a. Keep the CVOA as currently defined.
   b. Restrict catcher/processors from operation in the CVOA during both the A & B season with an examination of allowing motherships to operate in the CVOA exclusively as well as excluding them from CVOA.
   c. Repeal the CVOA.

2. Sunset Issues:
   a. No sunset date, but intended to serve as an interim measure until the Comprehensive Rationalization Program has been completed.
   b. 3-year sunset.

3. The analysis will identify and examine potential conservation impacts on fish stocks, marine mammals and other marine resources that may result from status quo, or any changes in the structure of the fishery as well as other recommendations made by the SSC in their June 1997 meeting.

Table 1

Relative Parameter Controversy, Significance, and Uncertainty

Data Parameter	Degree of Controversy	Degree of Uncertainty	Degree of Significance
Pollock TAC	low	moderate	moderate
Catch Estimate	moderate	low	moderate
Catch Location	low	low	moderate
PRRs/Utilization rates	high	moderate/high	moderate/high
Discards	low	moderate	low
Cost	high	high	not applicable
Inshore exvessel price	low	moderate	moderate
Offshore exvessel price	high	moderate/high	moderate
Wholesale price	moderate/high	high	moderate
Product mix and markets	moderate/high	moderate	high
Foreign ownership	high	low/moderate	low
Employment	high	moderate	moderate
wages	high	moderate	moderate
residency	high	moderate	low/moderate
PSC Bycatch	moderate	low/moderate	low
Impacts on Protected Species	high	high	moderate/high
Operational Capacity/Capability	low	high	moderate/high

[CONTROVERSY: how much dissension or disagreement is there over the parameter values?]

[UNCERTAINTY: how much unknown variability is suspected in the parameter values?]

[SIGNIFICANCE: how dependent is the analytical outcome on the assumed parameter values?]

Pollock Biomass and TAC Projections

Throughout the now more than 31 year history of pollock fishing in the eastern Bering Sea the catch has been reasonably steady, averaging 1.1 million metric tons (mmt), and has ranged from a minimum of 0.2 million t in 1964 to a maximum of 1.9 million t in 1972.[2] Since the advent of the U.S. EEZ in 1977, the average eastern Bering pollock catch has been 1.2 mmt and has ranged from 0.9 mmt in 1987 to 1.6 mmt in 1991. The stability of the eastern Bering Sea pollock stock is remarkable, in light of trends in most Asian pollock stocks and North Atlantic gadoid stocks which have collapsed or undergone strong fluctuations in catches and abundance.

Pollock catches have been near, or in excess of, 1 mmt since 1970, while stock biomass has ranged from a low of four to five million tons to highs of twelve to fourteen million tons. The SAFE, document for the 1996 fishing year, concluded that, "It appears that eastern Bering Sea pollock catches in the range of recent years are sustainable and well within the productive capacity of the stock and stock fluctuations observed over the history of the fishery."

The 'base-year' employed in the I/O3 analysis is 1996. At the time the 1996 BSAI SAFE document was prepared the biomass of eastern Bering Sea pollock was above six million tons. Historically, eastern Bering Sea pollock ABC has been set at the $F_{0.1}$ level of fishing, derived from the yield per recruit model with knife-edge recruitment at age 3. For 1996, pollock ABC was set equal to TAC for the Eastern Bering Sea and Aleutians. These were, respectively, 1.19 mmt, and 35,600 mt.

For 1998, the BSAI Groundfish Plan Team reported to the Council, in December 1997, on the condition and potential of the Eastern Bering Sea pollock resource for the 1998 fishing year (BSAI Groundfish SAFE document, 1998). Based on the Plan Team and SSC recommendations, the Council recommended the following pollock catch specifications for the 1998 fishing year (mt).

AREA	BIOMASS	OFL	ABC	TAC
EBS	**5,820,000**	**2,080,000**	**1,110,000**	**1,110,000**
"A" Season				**45%**
"B" Season				**55%**
Aleutians	**106,000**	**31,700**	**23,800**	**23,800**
Bogoslof	**280,000**	**8,750**	**8,410**	**1,000**

Scientists at the Alaska Fisheries Science Center, NMFS, monitor the status of (among other species) pollock stocks , and in doing so, make projections of the probable resource condition, into the near-future. These extrapolations are based upon a cohort analysis model, tuned to resource surveys, performed periodically by the Center's RACE Division. The latest BSAI "Status-of-Stock" projections are as follows:

[2] Source: *Bering Sea-Aleutian Islands Walleye Pollock Assessment for 1996.* Vidar G. Wespestad

Year	Spawners (million)	Total Biomass (mmt)	Catch (mmt)	R	F	Exploit.	Total Number (million)
1997	**7.671**	**6.408**	**1.129**	**0.67**	**0.24**	**0.18**	**9.15054**
1998	**8.246**	**6.016**	**1.150**	**5.05**	**0.30**	**0.19**	**10.56433**
1999	**7.200**	**6.575**	**1.046**	**7.48**	**0.30**	**0.16**	**13.824336**
2000	**8.725**	**7.492**	**1.109**	**7.97**	**0.30**	**0.15**	**16.463092**
2001	**9.916**	**8.224**	**1.255**	**7.80**	**0.30**	**0.15**	**17.863472**
2002	**10.708**	**8.820**	**1.392**	**8.08**	**0.30**	**0.16**	**18.91821**
2003	**11.089**	**9.099**	**1.485**	**7.63**	**0.30**	**0.16**	**19.066436**
2004	**11.075**	**9.094**	**1.521**	**7.13**	**0.30**	**0.17**	**18.622698**

Source: Status of Stocks Document, AFSC, December 1997.

These pollock TAC projections have implications for the analysis - for the first two years beyond 1998, the TAC level is very near (though slightly below) current levels, and through the year 2001 the average TAC level is almost exactly at the current level (1.136 mt per year). This simplifies the task of the analysts, in that we do not intend to make impact projections across any range of TAC levels, or into a point in the future where TAC levels are expected to increase back to levels experienced in the early 1990s. If we were making formal net benefit projections, we would likely feel more compelled to make such long-term projections, in order to capture the summary impact of the allocation alternatives being considered.

Gross revenue projections, and any other impact projections, will be made based on a 'snapshot' approach; i.e., here are the expected impacts, relative to the status quo allocations, for year one of an alternative allocation. Such impacts could be assumed to be additive over the life of the allocation chosen, though that is likely an over-simplification due to uncertainty over fish prices, product mix, markets, and a variety of other variables in the fisheries.

Catch and Production Estimates

The most recent year for which 'complete' catch and production data are available to the analysts is 1996. In some respects, even 1996 data may be incomplete/inadequate (e.g., prices), in which case, it is proposed that these data be supplemented with data from earlier years. Whenever this becomes necessary, it will be noted in the analysis.

In general, the 'sector profiles', presented to the Council in September, are expected to provide the necessary historical context against which the 'base year' case may be evaluated. To the extent that 'consistent'/'comparable' data are not available, results derived and conclusions drawn will necessarily be subject to wide (although largely unmeasurable) confidence-intervals, and will be so noted in the analysis. Catch estimates employed in the I/O3 analysis derive from one of two primary data bases, either Alaska Department of Fish and Game's *fish ticket files*, or NMFS' *blend catch data files.*

ADF&G Fish Tickets: Alaska statutes require that a fish ticket be prepared and submitted to the State for each and every exvessel commercial landing of catch, made within State waters. Fish tickets contain (among other entries) information on the species landed, the weight of the catch, gear-type employed, location of catch and landing, vessel identity and identity of purchaser, date of landing, and (in some cases) value information. Fish tickets are the *official* record of catch for those commercial operations delivering inshore and/or onshore. Some offshore operators voluntarily submit fish ticket data to the State of Alaska, as well, but these data are incomplete and therefore will not be employed as catch estimates for this sector.

NMFS Blend Catch Data: In the case of NMFS blend files, catch estimates are compiled from two separate sources, using a strict decision algorithm. The following summarizes this decision rule. Total groundfish catch for all species combined is computed each week for each processor vessel from Weekly Production Reports (WPR) [submitted to NMFS by the operator] and from NMFS-certified observer reports. If either of these reports is missing for a given operation in a given week, the report which is present is selected as the catch record. If both reports are present, the blend compares the two numbers. If the WPR and observer total catch numbers are within five percent of one another, the WPR estimate is selected as the source. If, for pollock target fisheries[3], the WPR is more than 30 percent higher than the NMFS observer total catch estimate, the WPR is selected as the source. In all other cases, the observer catch estimate report is selected as the source. The blend program then returns to the source data (WPR or NMFS-observer) and copies the detailed record, including 'gear-type', 'area', and 'species'. Blend records carry an identifier which indicates which source was used to compile the individual observation.

On the basis of these data sources (utilizing the 1996 base-year), the estimated groundfish catch in BSAI 'pollock-target' fisheries, by principal I/O3 sector, is as follows:

Processing Category	Pollock (mt)	Total Groundfish (mt)
Inshore (surimi)	**319,307**	**325,362**
Inshore (non-surimi)	**76,032**	**78,032**
Mothership	**121,959**	**124,724**
Catcher/Processor (surimi)	**432,308**	**441,594**
Catcher/Processor (non-surimi)	**213,756**	**222,649**

[3] Or more than 20 percent higher for all other targets.

The original Inshore/Offshore Amendment to the BSAI Groundfish FMP established an apportionment regime which allocated 65% of the pollock TAC to the "offshore" sector, with the remaining 35% set aside for the "onshore" sector. In the last full year of the fishery preceding I/O1 (i.e., 1991), the "offshore" sector actually accounted for more than 74% of the pollock harvest in these areas, with the "onshore" sector reporting catches of just under 26% of the total. The "offshore" catch was divided between catcher/processors (accounting for 65% of the total BSAI target pollock harvest, or more than 87.5% of the offshore share) and "true" motherships (accounting for just over 9% of the total, or approximately 12.5% of the offshore target catch).

By 1996 (the analytical base-year), I/O had apparently largely accomplished it's original stated objective, at least with respect to reapportioning the BSAI pollock target catch (i.e., 35%/65% between the inshore and offshore segments of the industry). Catch records in that year indicate that the "inshore" catch represented 34% of the total target landings of pollock in these areas, while the "offshore" sector accounted for 66% of the total. Within the "offshore" sector, catcher/processors accounted for 55.5% of the total BSAI target pollock catch, with the remaining 10.5% accruing to "true" mothership operations.

It may also be noted that these respective percentage shares, by sector, were shares of significantly different total catch amounts. That is, the total reported target pollock catch in 1991 for the BSAI management area was 1,541,660 mt. In 1996, this total was reportedly 1,163,660 mt, nearly a 25% decline in total target catch for all sectors combined. This means that, for example, while the "onshore" sector share of the total *increased* as a percentage from 26% to 34%, between 1991 and 1996, the actual tonnage was virtually *unchanged* (i.e., 395.4 mt in 1991; 395.6 mt in 1996). In the "offshore" sector, the "true" mothership share as a percent of total target catch *increased*, from just over 9.0% to 10.5%, but the sub-sector's actual pollock catch tonnage *declined* (i.e., 142.9 mt in 1991; 121.9 in 1996). And for the catcher/processor sub-sector, the difference was most dramatic. While this segment of the industry recorded approximately a 9.5% reduction in its recorded share of the total BSAI target pollock catch from 1991 to 1996, the sub-sector's pollock tonnage *declined* by more than 35.5% (i.e., 1,003.3 mmt in 1991; 646.1 mt in 1996).

More detailed information on catch distribution is contained in the profile package presented in September - for example, distribution of catch among different vessel sizes within each category, and how that has changed over time. That information will be included in the final document.

NMFS Management and Catch Accounting Considerations

A discussion (not yet completed) is anticipated which will clarify questions which have been raised regarding how NMFS manages and accounts for the specific I/O allocations of pollock. These involve the assignment of quota based on target vs total catch, and the implications of some of the current sub-alternatives from the management perspective. These include the potential separation of true motherships to their own category, the set aside for catcher vessels delivering offshore, and the set aside for smaller size catcher vessels within the inshore delivery sector. These do not necessarily affect projected analytical outcomes, but may be useful to the Council's consideration of alternatives.

Catch Location/CVOA Patterns

Analysis of Pollock Fishery Catch, Catch-per-Unit-Effort (CPUE), Pollock Size and Summer Pollock Population Distribution with respect to the Catcher Vessel Operational Area (CVOA)

Data Sources and Methods

Observer data were used to obtain summaries of pollock fishery catch distribution, CPUE, and pollock size distribution by fishery sector inside and outside of the CVOA in both the A and B seasons of 1991, 1994, and 1996. Only data collected on the eastern Bering Sea shelf were considered; data from the Aleutian Islands (540-543) and the Bogoslof districts (518) were excluded. A target species was assigned to each haul that was sampled by observers for species composition based on the groundfish species or species group that comprised the largest fraction of all of the groundfish caught in the haul. Only data from pollock target fisheries were included in this analysis. The fishery sectors considered were catcher processors (observer mode 1), catcher boats for shoreside processing plants (observer mode 3), and motherships (observer mode 2). A haul assigned a mode of 1 was done by a catcher-processor that both caught and processed the catch from that haul; this group consists solely of offshore vessels. The catch from a haul assigned a mode of 3 was delivered to a shoreside plant for processing, and as such, can be assigned entirely to the onshore group. The mothership sector in the observer summaries provided is a mixture of both offshore and onshore data. All data contained in the following summaries are representative of each sector's performance based on observer sampling.

Observer data were summarized for each season, A and B, based on the opening and closing dates of the entire pollock fishery in 1991 and for each fishery sector in 1994 and 1996:

Opening and Closing Dates for Pollock Fisheries in 1991, 1994 and 1996

	A-Season		B-Season	
Year	*Offshore*	*Onshore*	*Offshore*	*Onshore*
1991	January 1 - February 22		June 1 - September 4	
1994	Jan 20 - Feb 18	Jan 20 - Mar 2	Aug 15 - Sep 24	Aug 15 - Oct 4
1996	Jan 26 - Feb 26	Jan 20 - Mar 2	Sep 1 - Oct 17	Sep 1 - Oct 17

Source: NMFS Alaska Region Bulletin Board (NMFS F/AKR home page on the Internet).

Mothership opening and closing dates were set equivalent to the onshore sector's dates. Catch-per-unit-effort was defined as the total pollock catch (metric tons=t) divided by the total hours trawled summed over all sampled hauls in each sector-season cell. Similarly, mean individual pollock weight (in kg) was calculated as the total pollock catch weight divided by the total estimated number of pollock caught in all sampled hauls in each sector-season cell. Pelagic and bottom trawls were considered separately in these analyses and only pelagic trawl data are reported for CPUE, mean weight, and length-frequency. However, data on catch distribution (charts and percent inside and outside of the CVOA) include both bottom and pelagic trawl-caught pollock. Charts of pollock fishery trawl locations include the Bogoslof area for 1991, but these data were not included in CPUE or mean pollock weight calculations nor pollock length-frequency summaries.

Pollock population-at-length estimates inside and outside of the CVOA were available from bottom trawl and hydroacoustic-midwater trawl surveys conducted in 1991, 1994, and 1996. These surveys were conducted in

summer. Population-at-length estimates by region in the eastern Bering Sea are not available for any other season.

The location of the CVOA used in these analyses was 163° W to 168°W south of 56°N and north of the Alaskan peninsula and Aleutian Islands. This was how the CVOA was originally defined in the 1992 BSAI FMP Amendment 18. The size of the CVOA was reduced in 1995 by moving the western boundary eastward by ½° longitude to 167°30'W. Consequently, the size of the CVOA used to characterize its impact on the 1996 fishery was slightly larger than that actually enforced that year. The deleted area was not used extensively during the A- or B-seasons of 1996 by any fishery sector.

Results

A-Season: In 1991 and 1994, between 96% and 100% of the observed Eastern Bering Sea (EBS) shelf A-season pollock was caught within the CVOA by each fishery sector (Figures 1 and 2). The CVOA percentage dropped to a range of 46-75% in 1996, as all sectors utilized areas north and west of the CVOA along the 100 m contour. Ice could have constrained the fishery more in 1991 and 1994 than in 1996, since the extent of the ice edge was over 2° latitude (120 nautical miles) further south in mid-March of 1991 and 1994 than in 1996:

Latitude of Southern Extent of Ice Edge Along Meridian:

Year	*165°W*	*170°W*
1991	56.5°N	57.0°N
1994	56.5°N	57.0°N
1996	58.8°N	59.5°N

Source: National Ice Center

The last year that the Bogoslof district was open was in 1991, and approximately 50% of the A-season pollock catch came from that area, primarily by offshore catcher-processors (Figure 2).

In 1991, the average pollock CPUE of catcher-processors during the A-season was 72% greater inside the CVOA than outside the CVOA on the EBS shelf (Figure 3). In the A-season of 1994, catcher processor CPUE was 107% greater inside the CVOA than outside, while that of catcher boats was 67% greater. In 1996, the spatial CPUE relationship reversed: the average CPUEs of catcher processors and catcher boats were 48% and 122% greater outside the CVOA than inside, respectively. These data should not be used to make firm conclusions regarding spatial differences in CPUE because of the small size of the sample available from outside the CVOA in 1991 and 1994 and differences in the southern extent of ice.

Pollock caught by the fishery were generally larger and more uniform in size within the CVOA than outside on the EBS shelf during the A-seasons of 1991, 1994 and 1996 (Figures 4 and 5). This is most clearly evident in 1996 when the modal length and mean individual weight of pollock caught by each sector outside of the CVOA was 4-6 cm smaller and 0.2 kg lighter than inside of the CVOA. In 1991 and 1994, modal lengths were similar, but there were a greater percentage of pollock < 40 cm in length outside of the CVOA than inside (see table below), and mean individual weight tended to be lighter (Figure 5):

Percent of Pollock < 40 cm in Length in A-Season Fishery Samples

	Catcher Processors		Catcher Boats		Motherships	
Year	*Outside CVOA*	*Inside CVOA*	*Outside CVOA*	*Inside CVOA*	*Outside CVOA*	*Inside CVOA*
1991	21%	5%		5%	2%	5%
1994	9%	4%	3%	3%	7%	2%
1996	6%	1%	11%	1%	5%	1%

B-Season: The CVOA became operational in the B-season of 1992 and has been an exclusive inshore operational area each B-season since. In 1991, the last year that catcher-processor effort distribution was unconstrained by the CVOA, the offshore sector caught approximately 96% of its B-season pollock outside of the CVOA across a broad section of the outer shelf from the Pribilof Islands to the edge of the EEZ (Figures 1 and 6). In 1994, most of the catcher processor effort was concentrated north of the CVOA in the middle shelf and to a lesser extent west and north of the Pribilof Islands. However, in 1996, catcher processors worked exclusively north of the CVOA and west of St. Mathew Island, and not in the area west of the Pribilof Islands. Catcher boats caught about 84% of their B-season pollock in the CVOA in 1991, and this percentage increased to 100% in 1996 as the distribution of their B-season effort contracted (Figures 1 and 6).

Pollock CPUE was greater outside than inside of the CVOA in each of the paired comparisons available for the three years and fishery sectors (Figure 3). Pollock size, however, tended to be larger and more uniform inside than outside of the CVOA (Figures 5 and 7). Furthermore, pollock < 40 cm in length were more commonly encountered outside than inside the CVOA. This occurred even when there was a large, widely distributed incoming yearclass, which occurred in 1991 with the incoming 1989 yearclass as evidenced by the mode in the high 20 cms in all length-frequency samples (Figure 7) and the high percentages of pollock < 40 cm, particularly inside of the CVOA:

Percent of Pollock < 40 cm in Length in B-Season Fishery Samples

	Catcher Processors		Catcher Boats		Motherships	
Year	*Outside CVOA*	*Inside CVOA*	*Outside CVOA*	*Inside CVOA*	*Outside CVOA*	*Inside CVOA*
1991	20%	10%	10%	12%	18%	.
1994	13%		5%	1%	21%	1%
1996	19%			1%	15%	0%

Pollock Population-at-Length Distribution from Surveys: Bottom trawl and echo-integration/midwater trawl (EIMWT) surveys of the pollock population were conducted in the summers of 1991, 1994 and 1996. The EIMWT estimate is from the surface to within 3 m of the bottom, while the bottom trawl estimate is for the bottom 3 m; hence the two estimates can be summed to obtain an estimate of the total pollock population. Pollock population estimates by length in three regions of the eastern Bering Sea for each of the three years are presented in Figure 8. The three regions are: the CVOA, east of 170°W outside of the CVOA (equivalent to INPFC area 51 outside of the CVOA), and west of 170°W (equivalent to INPFC area 52). Data east of 170°W from the 1991 EIMWT survey could not be separated into areas inside and outside of the CVOA. Therefore, in

Figure 8 and in the table below, the 1991 CVOA data is from the bottom trawl survey only; for the area labeled as "East of 170°W, Outside of the CVOA", this includes both areas inside and outside of the CVOA east of 170°W for 1991.

Pollock Population Estimates and Percentages < 40 cm in Length by Area for the 1991, 1994, and 1996 Combined Bottom Trawl and EIMWT Surveys of the Eastern Bering Sea Shelf

	CVOA		East of 170°W Outside of CVOA		West of 170°W	
Year	*Pollock Population ($x10^9$)*	*% < 40 cm*	*Pollock Population ($x10^9$)*	*% < 40 cm*	*Pollock Population ($x10^9$)*	*% < 40 cm*
1991	7.3[1]	1.1[1]	60.1[2]	62.2[2]	104.8	68.9
1994	18.7	2.1	32.7	23.3	116.1	68.8
1996	7.7	9.2	31.8	24.1	88.8	68.8

[1] For 1991, data for the CVOA is bottom trawl only. These data are included in the total for the area east of 170°W for 1991.

[2] For 1991, data for the area east of 170°W, outside of the CVOA is actually for the entire area east of 170°W including the CVOA, both midwater and bottom.

In each of the three summers surveyed, about 2/3 of the pollock population by numbers was located west of 170°W, but over 2/3 of those encountered each year were < 40 cm in length. In the summers of 1994 and 1996, the CVOA contained only 11% and 6%, respectively, of the eastern Bering Sea pollock population, but small pollock were generally absent.

Steller sea lions and the CVOA: The western stock of Steller sea lions, located west of Cape Suckling (147°W) including the Bering Sea and Aleutian Islands, was recently (1997) reclassified as endangered under the Endangered Species Act. Much of the CVOA is designated as Steller sea lion critical habitat or is closed to trawlers in an effort to spatially segregate trawl fisheries from sea lions (Figure 9). Trawl exclusion zones that overlap with the CVOA surround sea lion rookeries on the following islands (from east to west in Figure 9):

Trawl Exclusion Zones Around Steller sea lion rookeries that overlap with the CVOA

Rookery Island	*10 nm Annual Trawl Exclusion Zone*	*20 nm A-Season Trawl Exclusion Zone*
Sea Lion Rock	X	X
Ugamak Island	X	X
Akun Island	X	X
Akutan Island	X	X
Bogoslof Island	X	

The cause of the decline in the population of the western stock of Steller sea lions is not known. While there are a large number of possible causes including disease and predation, reduced food availability resulting from

climate change and/or fisheries appears to be the most likely. Despite efforts to reduce interactions between groundfish fisheries and Steller sea lions, the population continues to decline and pollock removals from designated critical habitat in the Bering Sea/Aleutian Islands (BSAI) increased 45% between 1991 and 1995 (Fritz et al.1995; Fritz and Ferrero, in press). Pollock harvests from critical habitat in the BSAI come chiefly from the southeast Bering Sea foraging area which extends from 164°-170°W north of the Aleutian Islands and overlaps considerably with the CVOA (Figure 9). In 1996, pollock harvests from critical habitat declined to 1991 levels primarily because of the increased use of areas outside of the CVOA during the A-season (Figure 2).

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Fritz, L. W., and R. C. Ferrero. In press. Options in Steller sea lion recovery and groundfish fishery management. Journal of Nature and Wildlife Conservation.

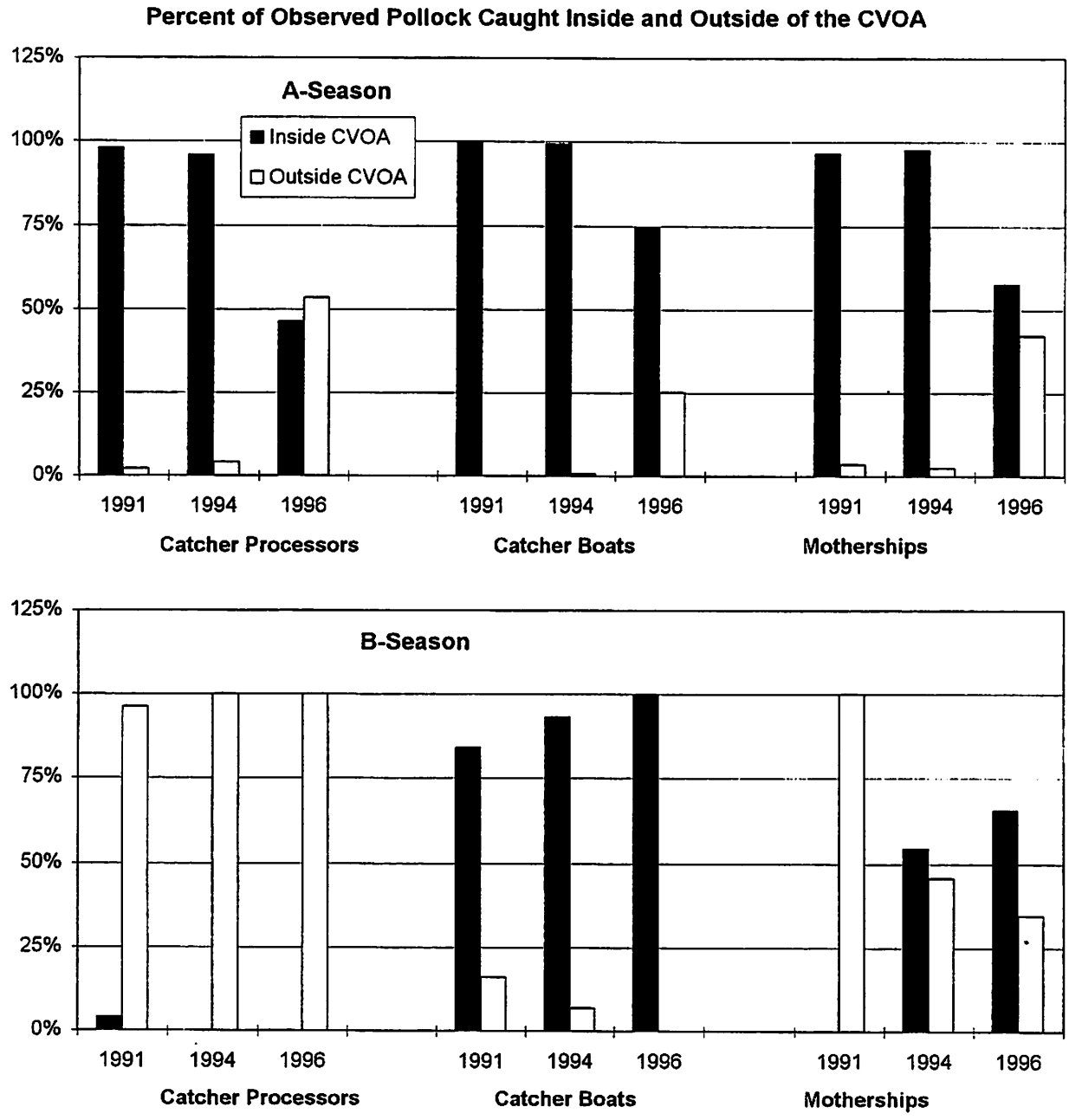

Figure 1. Observed pollock catch distribution by season, sector and area by pollock fisheries on the eastern Bering Sea shelf in 1991, 1994, and 1996. Aleutian Islands and Bogoslof data were excluded.

Figure 2. Observed pollock fishery trawl locations in the A-seasons of 1991, 1994, and 1996 by catcher-processors (top), catcher boats (middle), and motherships (bottom) inside (red) and outside (blue) of the CVOA. Depth contour=200 m.

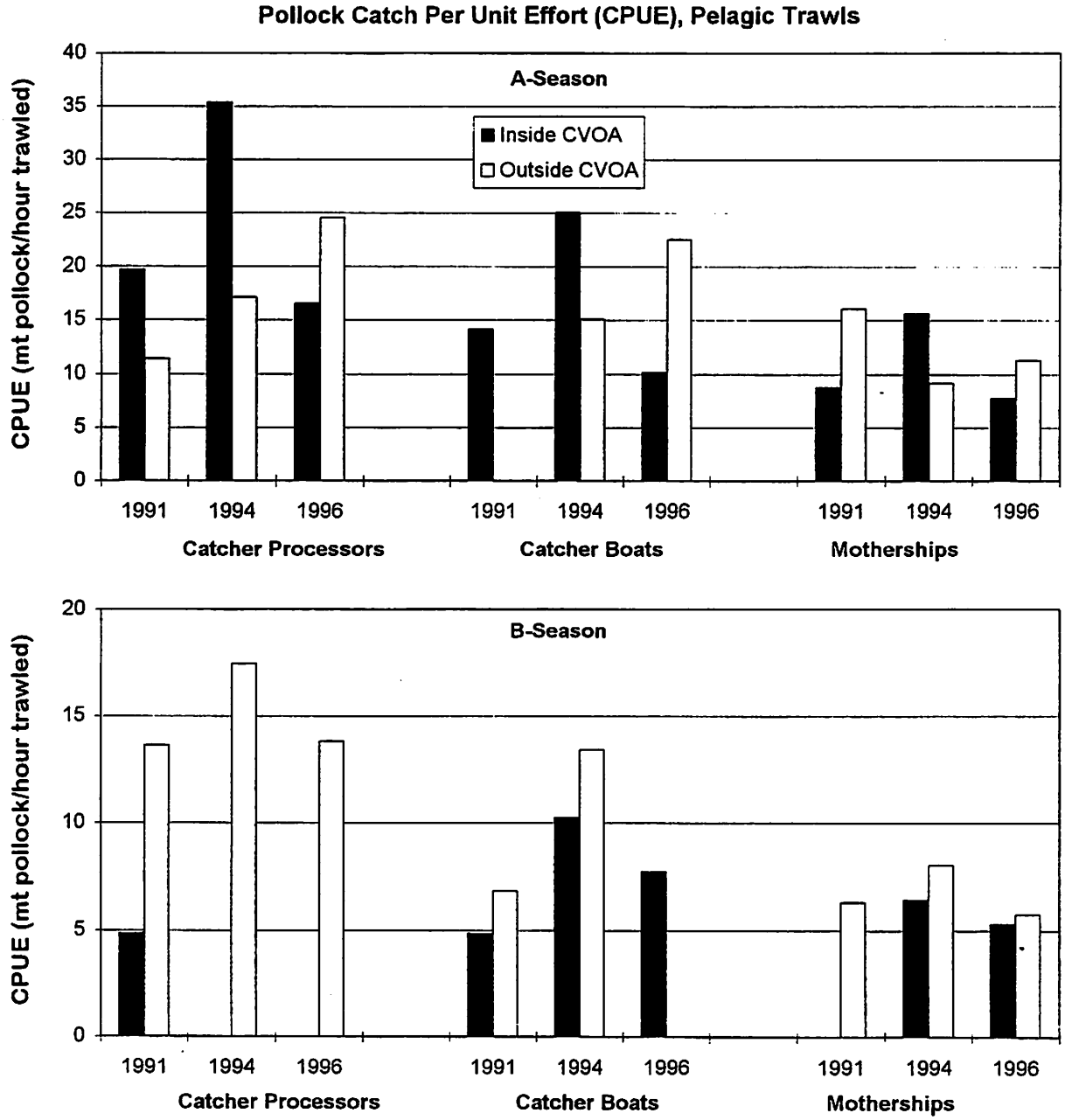

Figure 3. Pollock CPUE by season, sector and area by pollock fisheries on the eastern Bering Sea shelf in 1991, 1994, and 1996. Aleutian Islands and Bogoslof data were excluded.

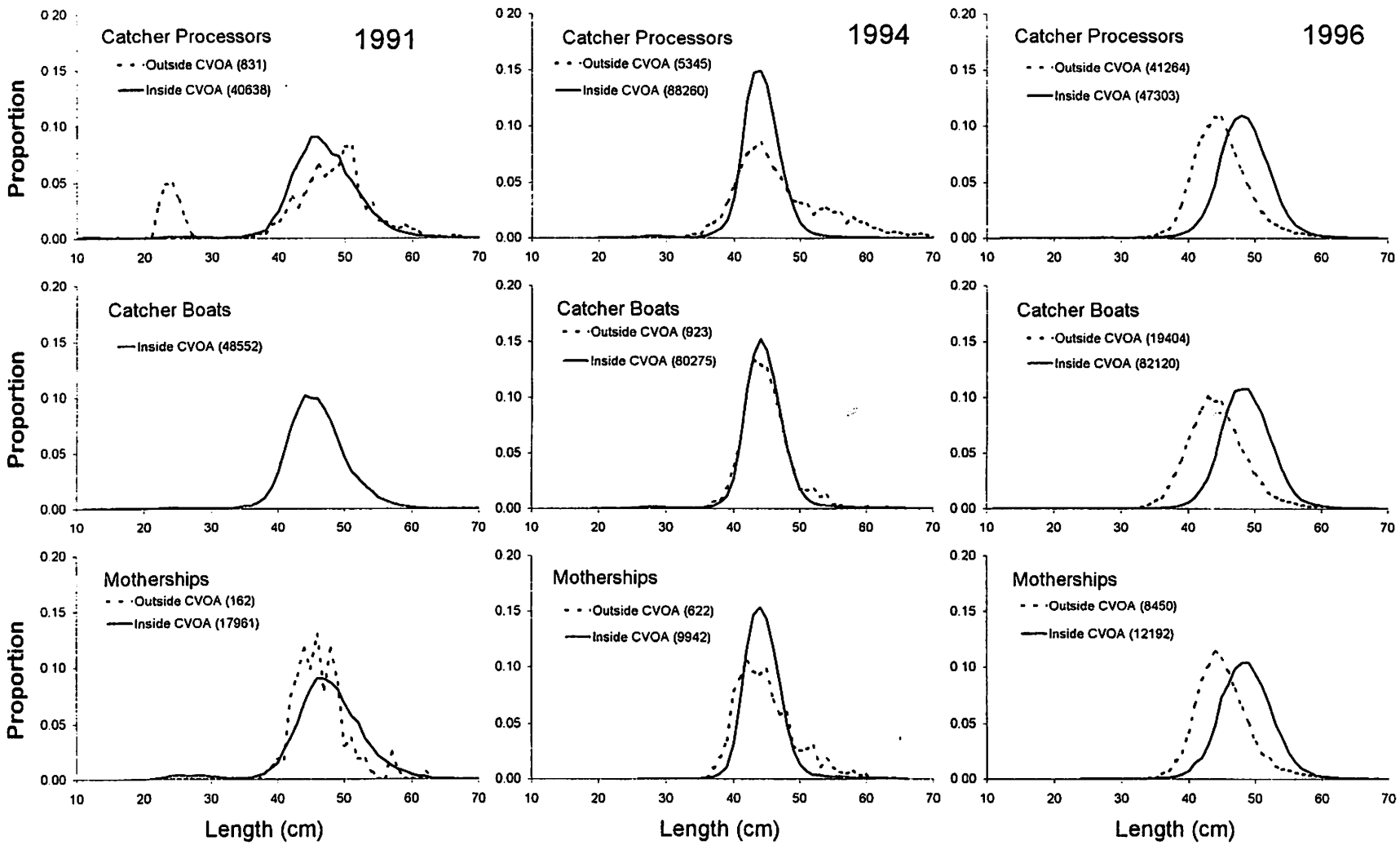

Figure 4. Pollock length-frequency from samples collected aboard offshore catcher processors (top), onshore catcher boats (middle), and mixed motherships (bottom) in the A-seasons of 1991 (left), 1994 (middle), and 1996 (right) inside and outside of the CVOA (number of pollock measured in legend).

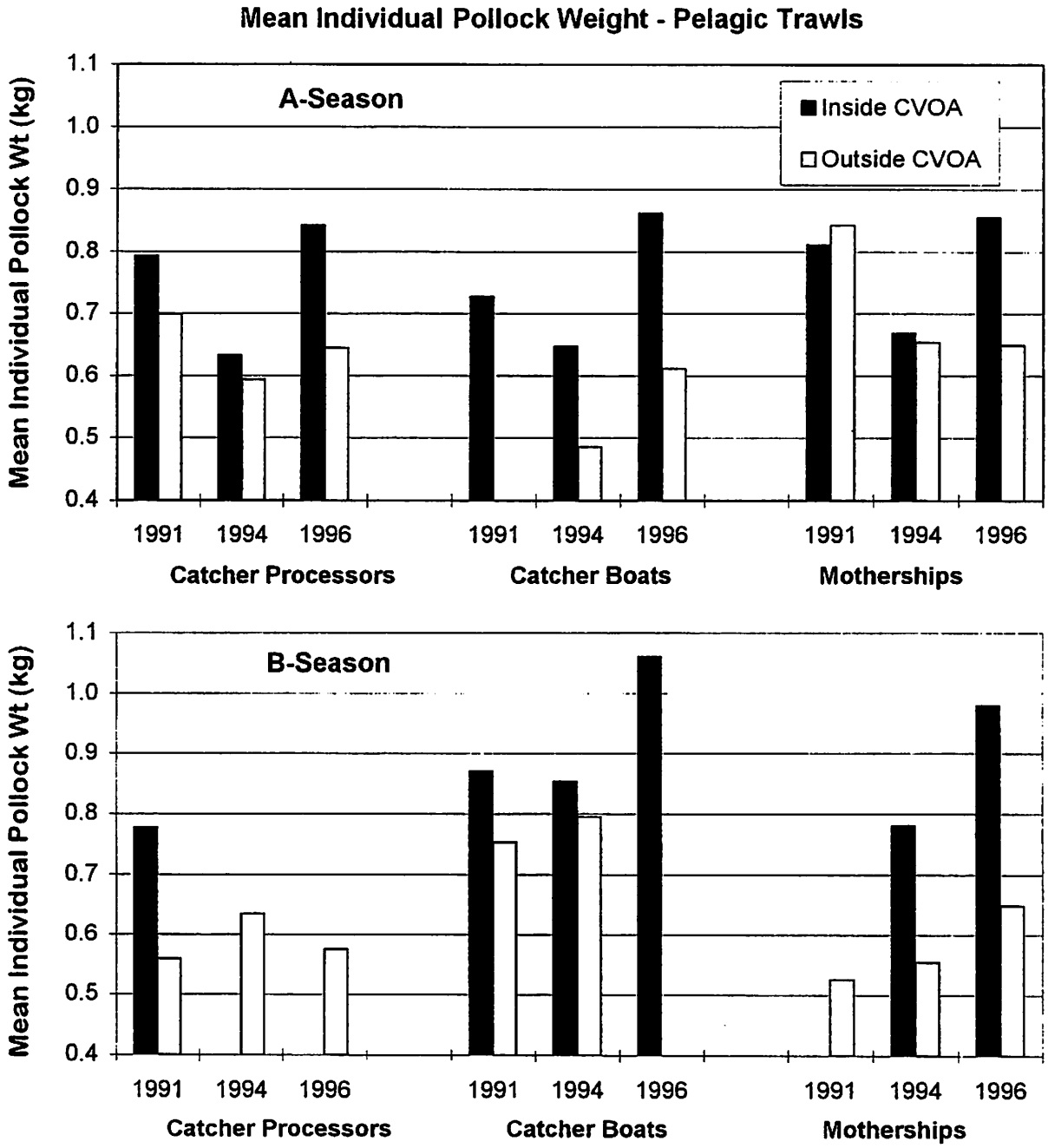

Figure 5. Mean individual pollock weight by season, sector and area by pollock fisheries on the eastern Bering Sea shelf in 1991, 1994, and 1996. Aleutian Islands and Bogoslof data were excluded.

Figure 6. Observed pollock fishery trawl locations in the B-seasons of 1991, 1994, and 1996 by catcher-processors (top), catcher boats (middle), and motherships (bottom) inside (red) and outside (blue) of the CVOA. Depth contour=200 m.

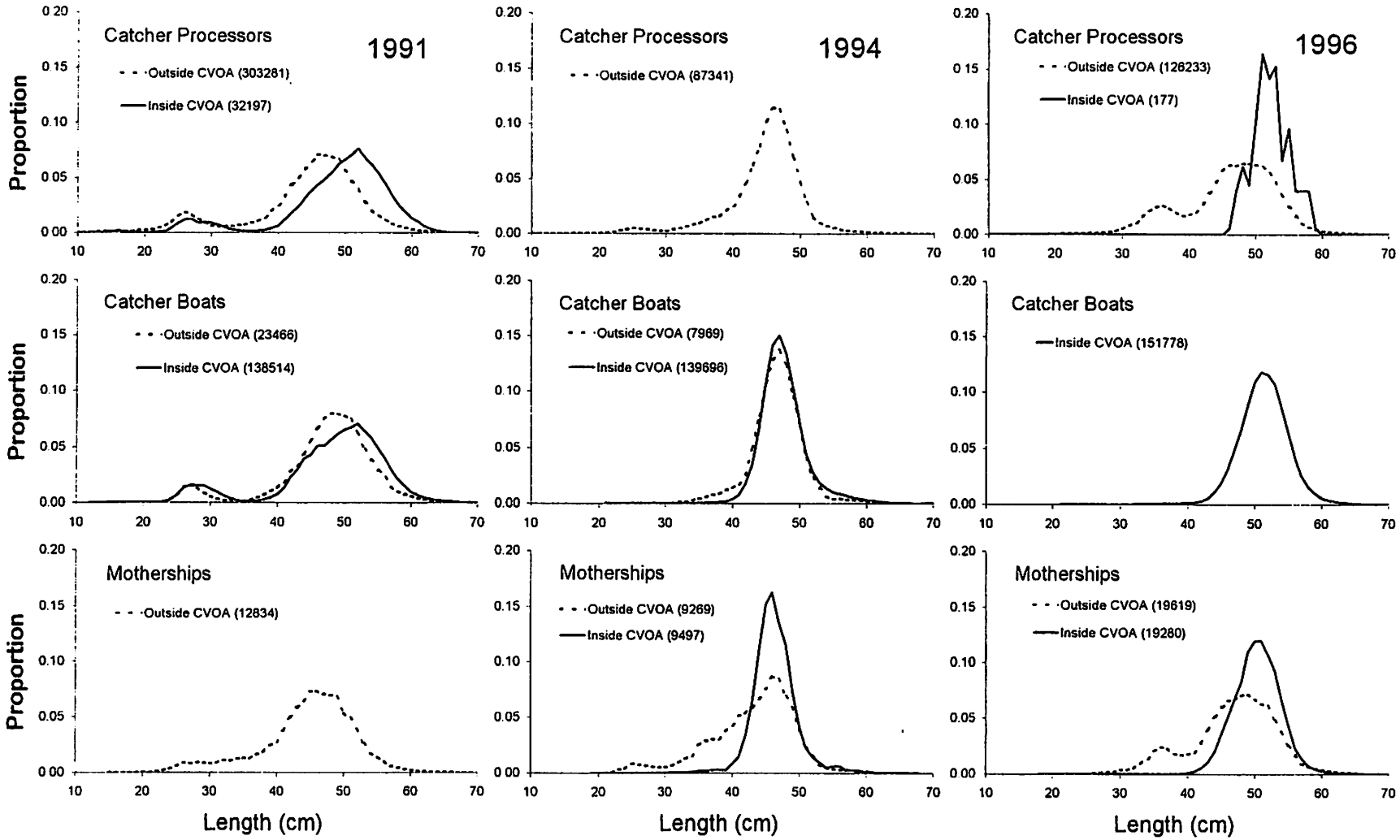

Figure 7. Pollock length-frequency from samples collected aboard offshore catcher processors (top), onshore catcher boats (middle), and mixed motherships (bottom) in the B-seasons of 1991 (left), 1994 (middle), and 1996 (right) inside and outside of the CVOA (number of pollock measured in legend).

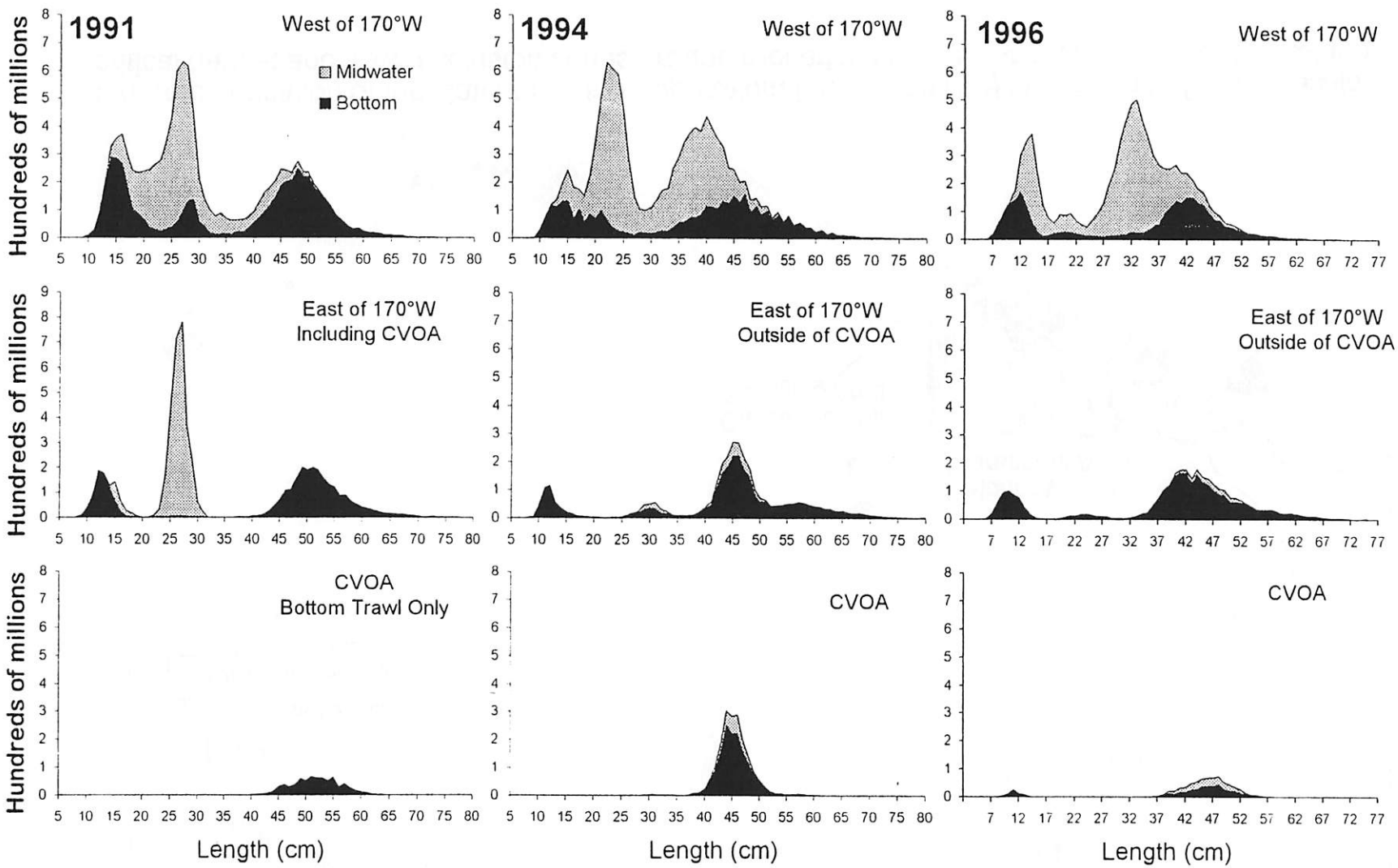

Figure 8. Pollock population-at-length estimates from the hydroacoustic-midwater (midwater) and bottom trawl surveys conducted on the eastern Bering Sea shelf in 1991 (left), 1994 (middle), and 1996 (right). Population estimates are provided for the CVOA (bottom), east of 170°W outside of the CVOA (middle), and west of 170°W (top). The 1991 midwater data east of 170°W could not be split inside and outside of the CVOA.

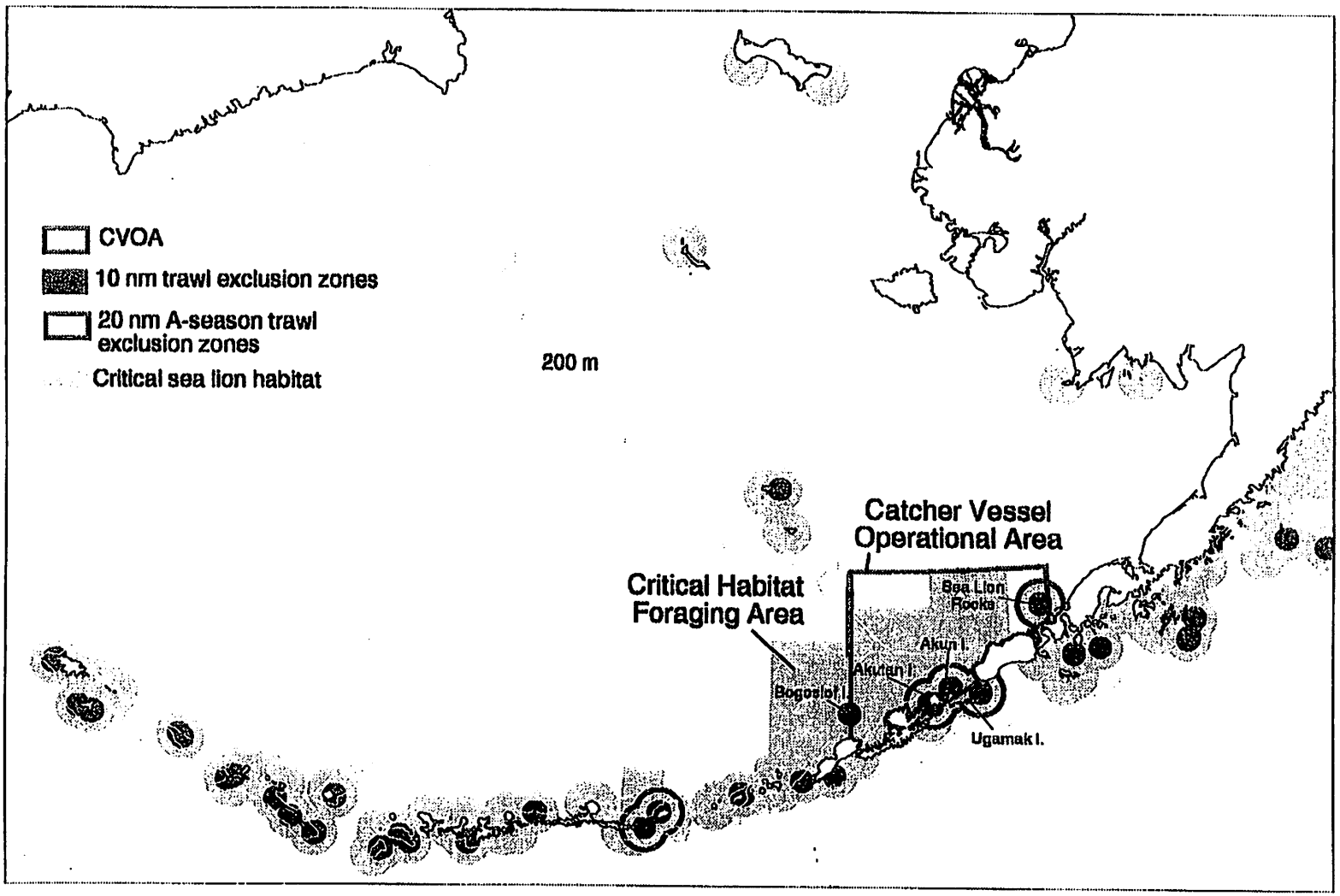

Figure 9. Location of the Catcher Vessel Operational Area (red line) in relation to Steller sea lion critical habitat and trawl exclusion zones around rookeries in the Bering Sea and Aleutian Islands.

Product Recovery Rates (PRRs) and Utilization Rates

Groundfish 'Product Recovery Rates' (PRRs) have been a source of contention within the BSAI and GOA fisheries management context, (see, for example, the discussion of PRRs in the BSAI and GOA IR/IU FMP amendments). Within the I/O3 analytical context, PRRs are relevant in two ways: (1) to estimate overall catch, and (2) as intrinsic factors in the estimates of overall utilization rates. In the discussions below, the shortcomings of PRRs are noted clearly, based on previous experience in analyzing fishery management proposals.

PRRs as a basis for catch estimates

PRRs are use by NMFS, as part of the overall 'blend system', to estimate overall catch in the groundfish fisheries. NMFS Alaska Regional Office publishes a list of "Standard Product Recovery Rates", by product form, which are used in this study in combination with sector-specific TAC allocation alternatives to project expected product output, based upon historic product-mix patterns.

As was noted in Table 1 (on page 5), PRRs are surrounded by controversy, and there is considerable uncertainty in their estimation. Changes to the assumed, standard PRRs would result in some changes to estimates of overall catch by sector. The most recent discussion of the use of PRRs was in the analysis of improved retention and utilization in the BSAI and GOA groundfish fisheries. In the final analysis of that amendment to the BSAI groundfish plan, dated May 21, 1997, Section 4.2.3 discussed the use of PRRs in monitoring and compliance. It noted that PRRs can vary, not only between operations, but within any single operation, over the course of the season. Such factors as the size and condition of the fish, seasonality, efficiency/performance of processing equipment, and market demands (affecting product form/quality/mix), may all influence the actual realized recovery rates for any given operation. Any operation, at any time, may obtain an actual PRR which significantly differs from the published standard.

Nevertheless, NMFS has developed standardized PRRs for use in tracking "aggregate" fleet performance and overall catch. NMFS uses these standards also for performing calculations for directed fishing and other formulas. The standard PRRs are approximations of the "average" product recovery rate performance observable in the fleet over a given interval of time, e.g., a fishing year, or season opening.

The approach in the analysis of the impacts of improved retention and utilization also is used in the current analysis of inshore-offshore allocations. It acknowledges that PRRs are variable and uncertain as shown in the accompanying two tables excerpted from the previous study, but uses the same "Official NMFS Product Recovery Rates" as the basis for judging utilization (by way of overall catch) as discussed further below. It is beyond the scope of the current analysis to derive separate PRRs or question the harvest estimates provided by NMFS on the basis of PRRs. It should also be noted that PRRs may change significantly over the next few years as new product forms are developed as the fisheries respond to new requirements to retain and utilize all pollock and Pacific cod.

In the original inshore/offshore analysis PRRs were a major variable of contention. At that time overall catch estimates were derived primarily from application of PRRs to the production reports, for both sectors involved. It was also possible to input a variety of PRRs (as well as prices, costs, and other variables) into the Monte Carlo simulation models to obtain probability distributions of expected net benefits. The current analysis will not employ that modeling technique. Nor should PRRs be as contentious this time around, since underlying catch estimates are not nearly so dependent upon PRRs as they were in 1991. Further, to the extent that actual PRRs differ from the published standards, such differences would essentially be captured in the overall utilization rate comparisons described below.

IU Option 2 - Processed Product for Groundfish Retained and Processed.
(Note: Only *"primary"* product forms on this list would be used to assess IU Compliance)

Product Form	PRR
IU Acceptable "Primary" Products	
Whole fish	1.0
Bled only	0.98
Gutted only	.80 - .90
Gutted only	.80 - .90
H&G w/roe	.55 - .80
H&G western	.50 - .78
H&G eastern	.32 - .65
H&G tail removed	.44 - .62
Kirimi	0.48
Salted/split	0.45
Wings	0.32
Fillets w/skin, ribs	.32 - .45
Fillets w/skin, no ribs	.27 - .38
Fillets, no skin, ribs	.21 - .25
Fillets w/ribs, no skin	.25 - .35
Fillets, no skin, ribs	.21 - .25
Fillets, deep-skin	0.13
Surimi	.15 - .18
Minced	.22 - .50
Mantles	.75 - .85
Butterfly, no backbone	0.43
"Ancillary" products	
Roe	0.08
Pectoral girdle	0.05
Heads	.15 - .20
Chins	0.05
Belly	.01 - .10
Fish oil	na
Stomachs	na
Milt	na
Bones	na
"Industrial" products	
Bait (primary)	1.0
Fish meal (ancillary)	.17 - .22

IU Option 2 - NMFS Approved Product Recovery Rates

PRODUCT CODE / FMP SPECIES	Species code	1 WHOLE FOOD FISH	2 WHOLE BAIT FISH	3 BLED	4 GUTTED	6 HEADED & GUTTED WITH ROE	7 HEADED & GUTTED WESTERN CUT	8 HEADED & GUTTED EASTERN CUT	10 HEADED & GUTTED W/O TAIL	11 KIRIMI	12 SALTED & SPLIT	13 WINGS	14 ROE
PACIFIC COD	110	1.00	1.00	0.98	0.85	0.63	0.57	0.47	0.44	....	0.45	....	0.05
POLLOCK	270	1.00	1.00	0.98	0.80	0.70	0.65	0.56	0.50	....	....	....	0.04
ROCK SOLE	123	1.00	1.00	0.98	0.90	0.80	0.72	0.65	0.62	0.48	....	....	0.08
YELLOWFIN SOLE	127	1.00	1.00	0.98	0.90	0.80	0.72	0.65	0.62	0.48	....	....	0.08

		PRODUCT CODE												
	Species code	15 PECTORAL GIRDLE	16 HEADS	17 CHEEKS	18 CHINS	19 BELLY	20 FILLETS: WITH SKIN & RIBS	21 FILLETS: SKIN ON NO RIBS	22 FILLETS: WITH RIBS NO SKIN	23 FILLETS: SKINLESS/ BONELESS	24 FILLETS: DEEP SKIN	30 SURIMI	31 MINCE	32 MEAL
PACIFIC COD	110	0.05	....	0.05	....	0.01	0.45	0.35	0.25	0.25	....	0.15	0.50	0.17
POLLOCK	270	....	0.15	....	....	....	0.35	0.30	0.30	0.21	0.16	0.16 1/	0.22	0.17
ROCK SOLE	123	....	....	....	....	....	0.32	0.27	0.27	0.22	....	....	....	0.17
YELLOWFIN SOLE	127	....	....	....	....	....	0.32	0.27	0.27	0.22	....	0.18	....	0.17

	Species code	33 OIL	34 MILT	35 STOMACHS	36 MANTLES	37 BUTTERFLY BACKBONE REMOVED	96 DECOMPOSED FISH	98 AT-SEA DISCARDS
PACIFIC COD	110	....	....	....	....	0.43	0.00	1.00
POLLOCK	270	....	....	....	....	0.43	0.00	1.00
ROCK SOLE	123	....	....	....	....	....	0.00	1.00
YELLOWFIN SOLE	127	....	....	....	....	....	0.00	1.00

Overall Utilization Rates

The second important aspect of PRRs is associated with the treatment of *relative* 'utilization' rates, per unit of raw pollock input. Specifically, in order to address the Council's request for relative sectoral-performance indices, pollock catch estimates are compared to reported product output quantities, to derive a crude measure of utilization, by sector. The resulting analytical output expresses the effective aggregate 'Utilization Rate' for each operational sector.[4]

For the analytical base-year (1996), these relative utilization estimates, by sector-category, are:

Processing Category	Pollock Catch(mt)	Product (mt)	'Effective' Gross PRR
Inshore (surimi)	**319,307**	**110,928**	**34.74%**
Inshore (non-surimi)	**76,032**	**20,513**	**26.98%**
Mothership	**121,959**	**28,437**	**23.32%**
Catcher/Processor (surimi)	**432,308**	**84,999**	**19.66%**
Catcher/Processor (non-surimi)	**213,756**	**36,308**	**16.99%**

When we examine the overall utilization rate based only on selected products (excluding meal production basically), the effective rates fall for all sectors, though the reduction is slightly more for the onshore sector overall, due to a higher proportion of overall meal production.

Concerns about interpreting comparative 'utilization' rates, among the several elements of the domestic pollock target fishing industry of the BSAI, have been cited above, in reference to basic PRRs. 'Utilization rates' are not directly monitored and reported by independent observers. Therefore, the performance data which can be derived are subject to interpretation. While 'utilization' is an important topic of concern within the Council's I/O3 debate, the ability of the analysts to address this topic in a rigorous empirical way is quite limited. It is assumed that the issue of 'overall utilization' (how much total product is produced per ton of raw pollock input) raised in Council discussions, and highlighted in the Council's I/O3 Problem Statement, remains a principal concern of the Council. Therefore, the analysis will proceed as follows:

Calculations, based on a simple ratio of total product to total catch, will be provided to arrive at an 'overall' utilization rate, for each sector/subsector (inshore, true mothership, fillet CP, surimi CP). In order to address the issue of 'food-grade' production, this calculation will be made both with and without the inclusion of fish meal. Extrapolations may then be made to illustrate potential *gross revenues* per mt of round fish attributable to the allocation alternatives. These are in addition to estimates of gross revenue per mt of processed product.

The Council was quite explicit in its instructions to the staff regarding the issue of 'utilization', despite concerns expressed by staff about the underlying weakness of the data used to derive such estimates. A discussion of the 'appropriateness' of such relative comparisons will be an important aspect of this 'overall utilization' discussion. For example, because 'total catch' estimates are derived differently for the respective sectors (e.g., 'blend' estimates vs. weighed catch reported on fish tickets), differences in *apparent* utilization rates could be attributable to differences in data sources, as opposed to actual performance.

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[4] Weekly Production Reports (WPR) are the sole source of product data for these fisheries. Because WPRs are compiled and submitted by the operator, these data are effectively 'self-reported' (i.e., there is no independent source of verification).

Furthermore, it is not true that '*more*' total output - at any price - is necessarily better than less total output. Or expressed another way, if it costs $1.00 to produce $0.10 worth of additional output, society has *wasted* $0.90 in the process. The utilization debate could lead to the erroneous conclusion that the highest utilization rate produces the highest value (in a 'highest and best use' sense). If this were true, then all fish should be marketed 'in-the-round' (i.e., 100% utilization, with no 'waste' ... but also no value-added processing applied). This, of course, is not a rational conclusion. A strict equating of 'utilization rates' with 'economic efficiency' is, therefore, inappropriate.

Regarding the assertion, in public testimony and in Council discussions, that "... inshore operations produce more 'human-grade' food output than do offshore operators, per unit raw pollock input", it will be crudely assessed by comparing raw input to food-grade output, by sector and/or subsector, from Weekly Production Reports, for pollock target fisheries. This is essentially what is proposed above, with the exclusion of meal products in the calculations.

Any attempt to assess the assertion about 'human-grade' product will be confounded by the issues raised above regarding PRRs, their 'appropriate' use, their variability over time and between operations, etc. There still do not exist high quality, reliable data on firm-by-firm PRRs, which would be important in differentiating relative production performance, i.e., "who produced .... more food-grade product per fish?" It would also beg the question, "was that additional production cost effective?" Assessing the proposition that offshore operators produce higher value products may likewise be constrained by the absence of comprehensive product 'grade/quality' data and extremely limited associated price information.

Discards

Discards - The source of discard estimates employed in this analysis depends on how total catch is estimated for a particular vessel or processor. For catcher/processors and mothership vessels with NMFS-certified observers onboard, the NMFS "blend" system is used to estimate total catch by species. In the case of at-sea processing operations without a NMFS-certified observer onboard, the agency uses the estimates of discards provided by the processor on the WPR. For unobserved catcher vessels delivering to shoreside processing plants, NMFS applies information about the weight and species composition of discards from observed catcher vessels operating in the same area, using the same gear-type, and participating in the same directed fishery.

For fish landed and then discarded from shoreside processing plants, NMFS uses information supplied by processors on WPRs about the weight and species composition of plant discards, regardless of whether the plant is observed or unobserved. It is difficult to assess the accuracy of either industry or observer estimates. In the case of at-sea operators, neither source provides direct measurement of discards, and once the discards are made, estimates cannot be verified. On-shore estimates, drawn from WPRs, are no better documented, since they depend solely on the data supplied by the operation, itself, and are filed with NMFS well after the discards have been sorted and disposed of, making physical verification impossible.

For the base-year, discard estimates, by sector, in pollock target fisheries in the BSAI were reported as described in the following table. These discard statistics may be misleading, however, as the Council considers the various I/O3 alternatives, because of the consequences of the Improved Retention/Improved Utilization Amendments (IR/IU) to the BSAI and GOA Groundfish FMPs. Under those amendments, beginning January 1, 1998, all discards of pollock and P.cod will be prohibited, by any operation fishing groundfish, with any gear-type, in the EEZ off Alaska. ***Therefore, for purposes of this analysis, it will be assumed that pollock and P.cod discards in pollock target fisheries will be effectively 'zero'.***

All else being equal, discards of other groundfish species, not regulated under IR/IU, will be assumed to be as observed in the base-year (1996), unless otherwise indicated. This simplifying assumption may perhaps be unrealistic, since actions taken to eliminate pollock and P.cod discards could change the pattern of discards of other groundfish. Unfortunately, it may take the monitoring of several seasons of fishing activity under IR/IU to fully assess these changes. Alternative scenarios can be envisioned within which discards of other groundfish species both increase and decrease, as the fleets attempt to adjust to a new operational environment. Until empirical data become available, the 'true' effect on discards cannot be anticipated.

In addition to the potential 'impacts' of IR/IU on discards under I/O3, several sub-options within the current inshore/offshore proposal have the capacity to alter discard patterns for some segments of the industry. For example, changes in access to specific sub-areas or fishing grounds (e.g., CVOA) may have significant implications for discard patterns for some sectors. To the extent that these impacts can be anticipated, they will be addressed under this section, or within the context of CVOA sub-options, whichever is more appropriate.

Catch and Discards of Groundfish in the 1996 BSAI Pollock Target Fishery

	Catch metric tons	Species percent of catch	Discards metric tons	Species percent of discards	Discard rate
Non-surimi Catcher/Processors					
Pollock	**213,756**	**96.0%**	**5,268**	**42.7%**	**2.5%**
Pacific cod	4,076	1.8%	3,497	28.4%	85.8%
Turbot	6	<.1%	6	<.1%	100.0%
Rock sole	1,035	.5%	812	6.6%	78.5%
Yellowfin	1,205	.5%	906	7.3%	75.2%
Flathead	1,504	.7%	914	7.4%	60.8%
Arrowtooth	395	.2%	375	3.0%	94.8%
Flat other	184	.1%	115	.9%	62.7%
Rockfish	18	<.1%	16	.1%	84.7%
Atka mack	1	<.1%	1	<.1%	100.0%
Oth/unk	470	.2%	425	3.4%	90.3%
Groundfish total	222,649	100.0%	12,334	100.0%	5.5%
Non-surimi Inshore Processing					
Pollock	**76,254**	**97.7%**	**845**	**38.8%**	**1.1%**
Pacific cod	1,225	1.6%	841	38.6%	68.7%
Rock sole	64	.1%	61	2.8%	96.2%
Yellowfin	7	<.1%	4	.2%	59.3%
Flathead	67	.1%	58	2.7%	86.9%
Arrowtooth	98	.1%	97	4.5%	98.9%
Flat other	58	.1%	57	2.6%	99.0%
Rockfish	48	.1%	38	1.7%	77.7%
Atka mack	149	.2%	115	5.3%	77.6%
Oth/unk	63	.1%	63	2.9%	99.9%
Groundfish total	78,032	100.0%	2,180	100.0%	2.8%

'Non-surimi' designation denotes catch processed by processors which did not report making pollock surimi in the fishing year.

Surimi Catcher/Processors					
Pollock	**432,308**	**97.9%**	**11,553**	**60.8%**	**2.7%**
Pacific cod	4,384	1.0%	3,494	18.4%	79.7%
Turbot	31	<.1%	29	.2%	95.9%
Rock sole	790	.2%	590	3.1%	74.7%
Yellowfin	691	.2%	580	3.1%	83.9%
Flathead	885	.2%	757	4.0%	85.5%
Arrowtooth	651	.1%	594	3.1%	91.2%
Flat other	208	<.1%	75	.4%	36.2%
Rockfish	64	<.1%	52	.3%	80.3%
Atka mack	200	<.1%	200	1.1%	100.0%
Oth/unk	1,381	.3%	1,061	5.6%	76.8%
Groundfish total	441,594	100.0%	18,986	100.0%	4.3%

Surimi Mothership Processing

Pollock	**121,959**	**97.8%**	**430**	**13.6%**	**.4%**
Pacific cod	1,991	1.6%	1,966	62.0%	98.7%
Turbot	1	<.1%	1	<.1%	100.0%
Rock sole	77	.1%	77	2.4%	100.0%
Yellowfin	5	<.1%	5	.2%	100.0%
Flathead	226	.2%	226	7.1%	100.0%
Arrowtooth	268	.2%	268	8.4%	100.0%
Flat other	67	.1%	67	2.1%	100.0%
Rockfish	40	<.1%	39	1.2%	99.3%
Oth/unk	91	.1%	91	2.9%	100.0%
Groundfish total	124,724	100.0%	3,171	100.0%	2.5%

Surimi Inshore Processing

Pollock	**319,307**	**98.1%**	**3,233**	**69.5%**	**1.0%**
Pacific cod	3,569	1.1%	267	5.7%	7.5%
Sablefish	3	<.1%	<1	<.1%	6.7%
Turbot	19	<.1%	7	.1%	36.0%
Rock sole	82	<.1%	36	.8%	44.5%
Yellowfin	11	<.1%	3	.1%	29.5%
Flathead	530	.2%	312	6.7%	59.0%
Arrowtooth	445	.1%	290	6.2%	65.2%
Flat other	497	.2%	146	3.1%	29.5%
Rockfish	196	.1%	59	1.3%	30.1%
Atka mack	34	<.1%	22	.5%	63.0%
Oth/unk	669	.2%	273	5.9%	40.7%
Groundfish total	325,362	100.0%	4,649	100.0%	1.4%

'Surimi' designation denotes catch processed by processors which reported making any amount of pollock surimi in the fishing year.

The elimination of pollock discards may imply marginal changes to overall utilization rates discussed in the previous section. The utilization rates for 1996 were calculated by dividing the total tons of pollock products by the total pollock catch. That means discarded pollock were included in the denominator of the utilization rate calculation. However, with the implementation of IR/IU in 1998, those pollock cannot legally be discarded. Creating products out of those previously discarded fish will increase the utilization rates for all sectors of the industry, assuming that the retained portion of the harvest would be processed the same before and after implementation of IR/IU. While we do know the utilization rates will increase, the amount they will increase by sector is not known. That will depend on the products produced from fish, that prior to IR/IU, would have been discarded.

It is possible to calculate the maximum utilization rate that would have been realized if the discarded pollock in 1996 had been processed into round pollock. The table below shows that such an assumption could have potentially increased the catcher processor's utilization rate by up to 3%, inshore 1%, and true motherships 0.5%. We do not expect that all the discarded pollock would have been processed into round product under IR/IU. However, if IR/IU were in place in 1996, we would expect the utilization rate to have been between the actual and the maximum. While the rates below may be illustrative of the IR/IU implications, they result in only slight changes and the analyses will employ the actual (1996) rates.

Sector	Catch (mt)	Product (mt)	Discards (mt)	Actual Utilization	Maximum Utilization
Inshore (Surimi)	319,307	110,928	3,193	34.74%	35.74%
Inshore (Non-surimi)	76,032	20,513	839	26.98%	28.08%
True Mothership	121,959	28,436	488	23.32%	23.72%
Catcher Processor (Surimi)	432,308	84,436	11,672	19.53%	22.23%
Catcher Processor (Non-surimi)	213,756	36,304	5,344	16.98%	19.48%

Exvessel and Wholesale Price Information

Inshore Ex-vessel Prices

Three sources of ex-vessel prices are reported in this section. Two of these sources are collected by the state of Alaska. Those sources are the prices reported on fishtickets and in the Processor's Annual Report. The third source is the negotiated prices from the Bering Sea Marketing Association. Each of these sources has its own strengths and weaknesses.

Annual Operator Reports

The annual reports are our best source for inshore ex-vessel prices in 1996. They provide ex-vessel price data that includes post season adjustments. This is an important consideration in the pollock fishery, where historically, inshore processors have offered pollock harvesters a roe bonus based on the pollock's roe content. The weaknesses of the annual operator reports are that they are submitted for the entire year. Therefore, separating out the differences in prices paid in the A and B season is not possible. The annual reports also would include payments made for CDQ pollock, so any difference in price paid in the CDQ and open access fisheries would not be captured.

Annual Reports From Inshore Pollock Processors

	Reported Tons	Reported Value	$/lb.
1991	289,363	$ 54,082,820	$ 0.085
1994	464,243	$ 79,215,082	$ 0.077
1996	386,026	$ 72,187,911	$ 0.085

Fishtickets

Ex-vessel prices are also reported on fishtickets. The major problem with using Fishticket data, and the reason they will not be used in this analysis, is that they do not include all of the post season adjustments. The fact that these adjustments are not included is reflected in the table of Fishticket prices below. Processors typically pay a higher price for pollock in the A-season, because of the valuable roe. However, the prices on fishtickets consistently report a lower A-season price when compared to the B-season.

Fishtickets from Inshore Processors

1991	Estimated Price	Low Price	High Price
A-season	$ 0.080	$ 0.076	$ 0.085
B-season	$ 0.086	$ 0.075	$ 0.098
Pollock Closed	$ 0.078	$ 0.071	$ 0.085
1994			
A-season	$ 0.072	$ 0.059	$ 0.086
B-season	$ 0.078	$ 0.066	$ 0.089
Pollock Closed	$ 0.048	$ 0.048	$ 0.049
1996			
A-season	$ 0.079	$ 0.062	$ 0.096
B-season	$ 0.082	$ 0.070	$ 0.093
Pollock Closed	$ 0.049	$ 0.043	$ 0.056

The low and high prices are the prices that are two standard deviations below and above the estimated price, respectively.

The Fishticket prices above were estimated by the Commercial Fisheries Entry Commission. To arrive at these prices the following rules were applied to CFEC's Fishticket files.

1. Selection of data.

   All fish ticket data for pollock (ADF&G species codes '270') were selected from fish ticket files as supplied by the Alaska Department of Fish and Game (ADF&G) for the years 1991, 1994 and 1996. This selection did not include data for CDQ pollock (ADF&G species code '970').

   The Federal Zone number of the harvest area was appended to the records by merging to a statistical area translation table received from the ADF&G (July 7, 1995). Records for the Bering Sea were selected if the federal zone began with a '5', federal zone 550 excepted (Donut Hole). The observed federal zones were reviewed for each year.

2. Assignment of Data to Onshore/Offshore/Mothership Categories:

   1994 and 1996 Data

   These years' fish ticket data were assigned to the onshore, offshore, or mothership categories by merging to yearly vessel files maintained by the NMFS. These particular NMFS files contained the official onshore/offshore/mothership designation for each processor.

   Fish ticket data from offshore catcher/processor vessels was selected only if the ADF&G number of the harvesting vessel differed from the ADF&G of the processing vessel. This eliminated any data harvested by the catcher/processor itself.

   1991 Data

   There was no onshore/offshore designation in 1991.

3. Ex-Vessel Price Estimation

   Only fish ticket data with round weight deliveries were examined. These data were then edited to remove extraneous data entry errors before a weighted average fish ticket ex-vessel price was computed. This procedure was modified from existing CFEC programs which edit prices for a wide variety of species and product codes.

   The editing procedure constructed a lower and upper boundary for acceptable fish ticket pricing information as follows:

   A. Data were assigned to the 'A', 'B' or 'C' fishing period based upon the month of landing shown on the fish ticket as shown in Table 1. The 'A' and 'B' periods reflect targeted fisheries, and the 'C' season contains landings occurring at other times. A '-' means that there were no data in this month.

TABLE 1: Assignment of Harvest to Season, by NMFS Designation, Month and Year

Month	ALL 1991	INSHORE 1994	INSHORE 1996	MOTHERSHIPS 1994	MOTHERSHIPS 1996	OFFSHORE 1994	OFFSHORE 1996
01	A	A	A	A	A	-	-
02	A	A	A	A	A	-	A
03	A	A	A	C	A	-	A
04	C	C	C	-	-	-	C
05	C	C	C	-	-	-	C
06	B	C	C	-	C	-	C
07	B	C	C	-	-	-	-
08	B	B	C	B	-	-	-
09	B	B	B	B	B	B	B
10	C	B	B	-	B	-	B
11	-	C	C	-	C	C	-
12	C	C	-	-	-	-	-

B. Data were grouped by processor, period, gear, and delivery code.

C. Gross Outlier Test:

The first edit eliminated any data containing prices greater than $7.00 per pound or less than $ 0.011 per pound (1994 and 1996) or prices greater than $1.00 or less than $0.01 (1991). The eliminated tickets were placed in a separate file and reviewed. (See Test 1 in Table 2)

D. Simple Average # 1

The average price (unweighted) was computed for the remaining data in each group (Mprice1). (An unweighted average was used because legitimate prices with a small number of pounds are eliminated below if a weighted average is used in this step.)

E. Factor of Ten Test:

Each price observation was then tested against Mprice1. Only data whose prices were > (Mprice1/9.5) and < (Mprice1 * 10) were retained. This is basically a 'factor of ten' edit. For example, if the average price is $.08, then any record with a price of $ .80 or more is eliminated. Eliminated records were placed in a separate file and reviewed. (See Test 2 in Table 2.)

F. Simple Average # 2

A second average price (unweighted) and a standard deviation was computed for the remaining data in each group (Mprice2 and Sprice2). If the standard deviation was less than a penny ($ 0.01) then the standard deviation was made equal to a penny. This manipulation to the standard deviation is done because the ultimate goal is to create a low or high range; thus standard deviations less than a penny are not helpful here.

A low range of acceptable prices was computed as Mprice2 - (3 * Sprice2). If this resulted in a negative number for the low range, then the low range was recompute as (Mprice2/5).

Likewise, a high range of acceptable prices was computed as the Mprice2 + (3 * Sprice2). If this resulted in a high range which was greater than twice the average, the high range was recompute as the Mprice2 + (2 * Sprice2).

G. Low/High Test

Prices from individual records were then tested against the low and high ranges. Records with prices less than the low range or higher than the high range were placed in a separate file and reviewed. (See Test 3 in Table 2). In a few instances, this examination (and subsequent look at the paper fish tickets) resulted in a relaxation of the lower or higher boundary for a given processor and period.

H. Weighted Average Price

An average price, weighted by the pounds acceptably priced, and a standard deviation was computed for the tickets passing the low/high test. The lowest observed priced and the highest observed price were noted and output, as well as the standard deviation, low range, high range, number of records, amount of pounds successfully passing through the edit, the number of total pounds in the group, the percent of acceptably priced pounds.

I. Additional Information Appended

The summarized records were then merged to the ADF&G's Intent to Operate file, and the name, federal tax identification number, and type of operation of the processor appended to the records.

Table 2 - Review of Fish Ticket Prices Eliminated from Final Weighted Average Price

TEST 1 Gross Outlier Test								
YEAR	Total Pounds Harvested	Acceptably Priced Pounds	Pounds from Eliminated Prices	Percent Priced Pounds	Total Records	Priced Records	Eliminated Records	Percent Priced Records
1991	1,030,523,893	605,895,888	4,509,559	0.74	3,711	2,463	18	0.73
1994	984,222,002	922,450,895	2,563,547	0.28	5,888	4,392	38	0.87
1996	965,446,624	896,384,860	842,732	0.09	6,239	4,472	27	0.60

TEST 2 "Factor of Ten" test								
YEAR	Total Pounds Harvested	Acceptably Priced Pounds	Pounds from Eliminated Prices	Percent Priced Pounds	Total Records	Priced Records	Eliminated Records	Percent Priced Records
1991	1,030,523,893	605,895,888	15,896	0.0	3,711	2,463	2	0.08
1994	984,222,002	922,450,895	929,783	0.1	5,888	4,392	7	0.16
1996	965,446,624	896,384,860	1,762,588	0.2	6,239	4,472	5	0.11

TEST 3 Failed low/high test

YEAR	Total Pounds Harvested	Acceptably Priced Pounds	Pounds from Eliminated Prices	Percent Priced Pounds	Total Records	Priced Records	Eliminated Records	Percent Priced Records
1991	1,030,523,893	605,895,888	95,765	0.02	3,711	2,463	6	0.24
1994	984,222,002	922,450,895	2,536,113	0.27	5,888	4,392	14	0.32
1996	965,446,624	896,384,860	1,175,750	0.13	6,239	4,472	24	0.54

The third data source for inshore ex-vessel prices comes from the Bering Sea Marketing Association. They provided negotiated prices for the 1996 fishing seasons. Those prices are listed below.

Bering Sea Marketing Association Prices

1996		$/lb.
A-season*	$	0.08500
B-season	$	0.08375

* No roe bonus

The processors that paid a roe bonus in the A-season used the following scale: $0.065 (<1% roe), $0.07 (1-2% roe), +$0.015/lb. for each additional roe % thereafter.

Bering Sea Marketing Association prices were not selected for use in this analysis because the prices received by fishermen after the roe bonus was paid cannot be determined. The roe content of the fish delivered to processors paying a roe bonus is required to make that calculation, and those data are not available.

Offshore Ex-vessel Prices

Ex-vessel prices for the offshore sector are unavailable for 1996. Both Fishtickets and Annual Operator Reports are filed on a voluntary basis by the offshore sector of the industry. During 1996, only two firms submitted price data to the State in either source. To release data under the confidentiality standards of the State, information must be aggregated over at least four firms. Because only two firms reported prices, that information cannot be released to the general public.

Because there is no official source of ex-vessel prices for the offshore sector, an alternative method to determine ex-vessel prices must be developed. Discussions with participants in the offshore sector indicate that they typically negotiate a price that is based on a percentage of the price paid to catcher vessels delivering shoreside. Catcher vessels delivering offshore indicated that they generally settle for a price at 85-90% of the shoreside price. Using the shoreside price of $0.085/lb. in 1996, and using the midpoint of the negotiated range (87.5%), yields an offshore price of $0.0744/lb. This is the price that will be used for the offshore sector unless a better methodology can be developed during the February meeting.

Wholesale price

We expect this information to be available in time for the Council meeting.

Product Mix and Markets

The profiles presented last September contained product mix information over the past several years. The most recent, complete information we have in this regard is from the 1996 fisheries, shown below.

Pollock Products Processed During 1996 (in mt)

Inshore/Offshore Class	NMFS Designation	Surimi	Minced	Fillet/Block and IQF	Deep Skin Fillet	Meal	Oil	Roe
Fillet - CP	Catcher Processor	-	6,567	3,971	15,832	-	-	1,574
	Mothership	-	1,271	933	2,290	-	-	167
Fillet - Catcher Processor Total		-	7,837	4,904	18,122	-	-	1,741
Surimi - CP	Catcher Processor	50,755	14	1,104	6,426	10,940	344	5,157
	Mothership	7,183	-	26	666	1,372	-	448
Surimi - Catcher Processor Total		57,938	14	1,131	7,092	12,312	344	5,605
Catcher Processor Total		**57,938**	**7,851**	**6,035**	**25,214**	**12,312**	**344**	**7,346**
Shoreside Total[1]		**71,349**	**2,626**	**9,229**	**7,442**	**27,864**	**8,514**	**4,417**
True Mothership Total		**21,992**	-	-	-	**5,016**	**353**	**1,075**
Grand Total		**151,279**	**10,478**	**15,263**	**32,657**	**45,192**	**9,211**	**12,838**
Fillet - CP	CDQ	-	3,220	3,359	2,802	-	-	364
Surimi - CP	CDQ	4,203	10	158	1,081	356	0	506
Mothership	CDQ	1,369	-	-	-	278	-	288
Shoreside	CDQ	n/a[2]	n/a	n/a	n/a	n/a	n/a	n/a

1/ The Northern Victor and Arctic Enterprise have been included in the Shoreside class and designation in years they participated.

2/ The n/a indicates the information cannot be broken out using National Marine Fisheries Service WPR data

Source: National Marine Fisheries Service AKR Weekly Production Reports for 1996

Based on the proportion of products shown for each sector, it will be possible to quantitatively project 'probable' changes in supply, by product-form, resulting from alternative reapportionment percentages of the pollock TAC (and thus catch) among sectors.

Based upon suppositions about existing production 'capability' in each sector, it may be possible to hypothesize product mix adjustments which might be made, in the short-run and intermediate-run. These hypothetical results will be constrained by our knowledge of existing capacities and capabilities within each sector. At present, this information is quite limited. In addition, issues associated with patterns of retention under IR/IU will be 'qualitatively' addressed.

The analysts believe that the market share, export vs. domestic supply, and retail level response to changes in supply, supplier, and product form can be addressed by employing a qualitative 'analysis', to supplement the foregoing. This would involve extrapolating from recent historical patterns. For example, a reapportionment of TAC among sectors would be expected to result in 'predictable' changes in the market share, destination, and price structure for pollock outputs, based upon assumptions cited above. TAC-reapportionment may also have implications for 'substitute' products and suppliers serving domestic (and for that matter, foreign) markets. These theoretical results may be extended, if appropriate, to trade considerations for the U.S., as a whole, e.g., 'balance-of-trade' considerations;

Any such analysis would be limited to a 'qualitative', largely hypothetical, treatment of these topics. No empirical data exist with which to undertake a rigorous quantitative analysis of the issues cited. While the results of a hypothetical assessment could provide some useful insights into the 'likely' implications of any proposed reapportionment of TAC, it would be vulnerable to criticism by those who may make alternative "assumptions".

In summary, we will use the existing product mix information as the primary basis for projections. More qualitative discussions regarding possible changes will be included to supplement the basic projections.

Foreign Ownership

Among the types of information requested by the Council was a description of the levels of foreign ownership and control of harvest and processing capacity in the BSAI pollock fisheries. While some of the major foreign investments in the pollock fisheries are generally known, more specific information was requested by the Council. As we have described for the Council previously, the business and corporate ownership structures of various fishing and processing entities make it extremely difficult to provide definitive information in this regard.

There appears to be three basic sources of information on foreign ownership. The first is the report produced by the Alaska State Legislative Research Agency in early 1994. As you will recall from the December 1997 Council meeting, Clipper Seafoods requested a public retraction from the Council Executive Director because (1) we had distributed the State's report with our inshore-offshore materials in September, and (2) they were listed as having foreign ownership in the State report, when in fact, they were now All American. Because these ownership structures appear to change frequently for a variety of the operators involved, we need to have more recent information than what is in the State report. A second source of information is the Lexis-Nexis computer data base which we have queried for foreign ownership data. Bits and pieces of Information in that database come from many diverse sources that are difficult to verify independently. It is hard to meld those bits and pieces together into a credible depiction of the ownership of a particular company or vessel, and there is a high likelihood that we will get it wrong, inadvertently embarrass a company, and then have to make all sorts of public retractions. And this leads to the third source of information which is, of course, the companies and vessel owners themselves.

Our game plan now is to meld the State report and more recent Lexis-Nexis information together for each company and send out to the company the resulting foreign ownership profile we have for it and let them comment and revise as necessary. A compilation of the results will then be provided to the Council and public in April. We will attempt to groundtruth as much as possible the information received, before we let it go public, because of the sensitivity of this sort of information.

A lingering question we have is the level of detail that the Council is interested in. Do you want to see foreign ownership descriptions by specific named plant or vessel? Or is it sufficient to be more general and describe foreign ownership patterns by sector, and not name names?

Employment Information

We presented employment information in September which was incomplete, due primarily to our lack of employment information for the at-sea sector. Reporting requirements in Alaska are different than in Washington, for example, and we were able to give you employment information for the primary onshore plants involved in the pollock fishery, but not the at-sea sector. This included total employment, a breakdown by month (which may give some indications of pollock-specificity), and residency of those employees, as compiled by the Alaska Department of Labor. We received assistance from the Washington Department of Fisheries, including Council member Austin, to try and get symmetrical information for the offshore fleet; unfortunately there is no official, agency source for the data we need.

We had hoped to get this issue pinned down and resolved in time for this Council meeting, but it is still unresolved. We are coordinating with the Alaska Department of Labor, and representatives of the at-sea sector who have volunteered to provide us with social security numbers for all of their Bering Sea operations. This would be cross-checked against the Alaska Permanent Fund Dividend files to determine the number and percentage of Alaskan resident employment. This would not necessarily be specific to 'pollock employment', but as with the onshore plant information, would cover all employment (we have no way to really differentiate by species).

This gives rise to the issue of using industry-submitted data in the Council analysis. After several discussions of this issue, with members of various industry sectors involved, we as staff are suggesting the following basic policy: **If information can be provided which will help fill existing holes in the analysis, and result in symmetry in the information across sectors, we will accept that information subject to our own internal review. We will clearly state in the analysis where the information came from, as well as any caveats or concerns we have with the use of that information.** In the case of the employment information for the at-sea sector, we need to see what is submitted and review that data along with personnel from the Alaska Department of Labor. Only then will we be in a position to judge the usefulness of that data and report back to the Council.

A variety of other types of information could be submitted for consideration of the analysts. Examples of some types of data which have been suggested for submittal are expenditures made for support services in Alaska. **Our intent, unless otherwise directed by the Council, is to <u>not</u> accept any industry-submitted data which would create a 'new' asymmetry in our information.** If we accepted such data from one sector, and used it in the analysis, we would be compelled to gather comparable information from the other sectors involved. Obviously this could get us into an untenable 'do-loop'. While much of this type of information may be extremely useful to the Council's decision process, we do not have the ability to independently verify such submittals. We suggest that the public testimony process is the appropriate vehicle for this type of information, except where we have some ability to verify the information, and where it is needed to fill an existing asymmetry in our information, such as with the employment issue.

We should also mention that the work being conducted by Impact Assessment, Inc. is expected to provide another, less quantitative perspective on the overall employment issue. A major focus of their work is to identify the linkages, from a community and employment perspective, to each industry sector, and therefore be able to make some assessments regarding impacts of the alternatives. They are also looking at employment in the catcher vessel sector, where we have no definitive data. More detail on the IAI contract is provided in a separate discussion in this document.

PSC Bycatch Information

Bycatches of 'prohibited species' in the BSAI pollock target fisheries have the potential to impose both direct and indirect costs. Rates and species composition vary significantly by area, time, gear-type, and sector. They also would be expected to vary, over time, with the relative abundance of the individual PSC species, e.g., an exceptionally strong AYK chum salmon return could produce unusually high rates of bycatch of "other salmon" in BSAI pollock target trawl fisheries. Anticipating variability in rates is particularly difficult.

Utilizing NMFS catch and bycatch data (principally from 'blend' files), base-year PSC statistics for BSAI pollock target fisheries were examined. The following tables summarize these PSC bycatch performance data, by processing mode and sub-sector for 1996 (data from the 1991 and 1994 fisheries were presented in September to illustrate the trends and variability over time - that information will be included in the final EA/RIR document for review in April). The first table presents the total bycatch in 'metric tons' or *'numbers of animals'* taken by a sector in directed pollock fisheries for the entire year. The second table converts these estimates into *'PSC bycatch rates'*, expressed in terms of *'tons of PSC-bycatch'* per ton of groundfish catch, or *'numbers of PSC animals'* per ton of groundfish catch.

Comparisons between the two tables suggests that, in some instances, relatively large absolute PSC numbers (either tons or animals) may actually be associated with relatively small *'rates'* of bycatch, due to the absolute volumes of groundfish catch recorded by a given sector. This further suggests that these two aspects of PSC-bycatch performance be assessed in combination in order to evaluate relative sector (and/or sub-sector) impacts.

BSAI Pollock Target Fishery Prohibited Species Bycatch, by Processing Mode

[Metric tons or number]

	Halibut mort.	Herring	Red king crab	Other k.crab	Bairdi	Other Tanner	Chinook	Other salmon
	t	t	1,000s	1,000s	1,000s	1,000s	1,000s	1,000s
Catcher/Processor								
Non-surimi								
1996	125.6	49.5	4.9	.0	20.1	20.5	6.1	4.2
Surimi								
1996	129.9	720.6	1.0	.1	62.0	24.5	14.4	35.3
Motherships								
1996	20.5	30.7	.0	.0	.1	.2	8.8	18.6
Inshore								
Non-surimi								
1996	11.0	186.5	.0	.0	.8	3.3	4.3	4.8
Surimi								
1996	33.7	254.3	.1	.1	6.5	15.0	22.0	14.5

BSAI Pollock Target Fishery Prohibited Species Bycatch Rates, by Processing Mode

[Metric tons/ton or number/ton]

	Halibut mort.	Herring	Red king crab	Other k.crab	Bairdi	Other Tanner	Chinook	Other salmon
	t/t	t/t	No./t	No./t	No./t	No./t	No./t	No./t
Catcher/Processor								
Non-surimi								
1996	.001	.000	.022	.000	.090	.092	.027	.019
Surimi								
1996	.000	.002	.002	.000	.140	.056	.033	.080
Motherships								
1996	.000	.000	.000	.000	.001	.002	.071	.149
Inshore								
Non-surimi								
1996	.000	.002	.000	.000	.011	.042	.056	.061
Surimi								
1996	.000	.001	.000	.000	.020	.046	.068	.045

Assuming the 1996 bycatch rates shown above, we can provide projections of bycatch, broken down by each sector, for the range of alternatives under consideration. This information would be included in the final EA/RIR for review in April.

Impacts on Protected Species

The Council's list of alternatives specifically requests the identification and examination of potential 'ecological' implications to the proposed reapportionment of TAC among the several sectors. Most of this type of consideration relates to pollock fishing patterns in the CVOA, and more specifically to the potential impacts to sea lions of existing or future CVOA catch patterns. NMFS has several concurrent initiatives under way with regard to Steller sea lion issues, with the net result being a broad consideration of current management measures, aside from the specific implications of the I/O3 allocation issue. Nevertheless, the EA/RIR being prepared for I/O3 will specifically address the sea lion implications, once the CVOA and associated analyses are completed. These analyses will be reviewed by NMFS Protected Resources Management Division (PRMD) and National Marine Mammal Laboratory scientists, and their assessments will be included in the EA/RIR for review in April.

While this assessment may not provide definitive guidance in terms of an 'optimal allocation', it is expected that such assessment would at least address the alternatives in a general fashion, and be able to flag any alternatives that appear to be unreasonable choices in terms of Steller sea lion implications; i.e., for which we are unable to make a Finding of No Significant Impact (FONSI). Once a Council decision is made, a more formal 'Section 7 Consultation' would occur relative to the specific alternative chosen. We anticipate that information provided by the marine mammal scientists in the EA/RIR for April will enable the Council to select an alternative(s) that would withstand the subsequent Section 7 Consultation.

For purposes of the EA/RIR analysis, the proportions of observed catch, by each sector, inside and outside of the CVOA in the A-seasons of 1994 and 1996, and the B-season of 1996, are presumed to remain constant over the period of assessment. [The fishery distributions during the A-seasons of 1994 and 1996 were different. Thus, the inclusion of these two years in the A-season analysis is justified. The reasons for the differences may involve ice (1994 had a more southerly extent of ice than 1996) and fish distributions.] Assuming a TAC of approximately 1.1 million tons of pollock; assuming the I/O3 TAC-allocation alternatives; assuming the CVOA-alternatives (in all their combinations), and assuming that observed catch represents actual catch for distributional purposes; then the analysis will seek to project 'probable' catch distributions, by sector, by area, by season.

The CVOA section of the analysis will use the endpoint of the range of I/O3 TAC-apportionment alternatives to describe the extremes in 'predicted' fishery distribution, and how this relates to recent trends. This discussion will not necessarily contain any recommendation for a threshold, or ceiling above or below which one should not go, because of concerns over impacts on any other part of the ecosystem.

Implications of I/O3 attributable impacts, e.g., impacts on Steller sea lions caused by lesser or greater fishing activity in the CVOA, would ideally be addressed in a comprehensive impact analysis. Such ecological impacts could result in "losses" to some individuals and/or groups, some of which might be expressed in the form of nonmarket impacts. These are largely beyond our current capability to measure, but may be referenced in the analysis, if appropriate. Ecological, or 'ecosystem', impacts beyond Steller sea lion issues are even more difficult to project, and are likely beyond the scope of the analysts' ability to predict.

Potential Spillover Effects

Potential impacts to other fisheries is an issue which has been raised and which was highlighted by the SSC in December as an area that should receive higher priority in the analysis. In response staff has developed the following baseline information relevant to consideration of this issue. We expect to expand this information between now and April, and include further discussion of possible substitution patterns.

Operational Capacity/Capability

The first step in assessing the capacity and capability of the BSAI pollock target fishing sectors is to tabulate the operations which constitute each element of that industry. The first measure enumerates the 'unique'[5] operations in each of the four primary sectors of interest, for 'pollock target fisheries', in the base-year (i.e., 1996).

Catcher/Processors -**37**
Catcher boats -**118**
Motherships - **3**
Inshore -**10**

Catcher/Processors

When the sectors are further subdivided (on the bases cited above), the following results emerge. The composition of the 1996 pollock target C/P fleet may be described on the basis of 'vessel length over all' (LOA) and 'net tons'. The data reveal that **8** C/Ps are greater than 300' LOA; **14** are between 230' and 300' LOA; and **15** are less than 230' LOA.

On the basis of net tons, the smallest category of C/Ps (i.e., less than 500 net tons) included **5** vessels; **11** vessels were registered in the 500-999 net ton category; **14** were in the 1000-2000 net ton class; and **7** were greater than 2000 net tons.

Catcher boats

The catcher boat sub-sector was enumerated on the basis of vessel length over all (LOA) and horsepower. Given the relatively limited data available on fleet physical-plant, these two measures (for which relatively complete data are available) were judged to be indicative of fishing capacity for the catcher boat sector. LOA measurements suggest that there are **89** catcher boat operations in the less than 125' category; in the 125' to 155' category the count is **20** vessels; and **9** in the greater than 155' LOA class. There are **31** boats with greater than 1500 hp; **32** with 1000 hp to 1500 hp; and, **46** in the less than 1000 hp class.[6]

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[5] The 'unique' total assures no double-counting of operations, e.g., a vessel which participated in more than a single operational mode during a given fishing year would be counted only once. Note that judgements about participation are confined to 'pollock target' fisheries.

[6] Two boats appear without horsepower listings in these data, for each of 1994 and 1996. Only a single vessel was so listed in 1991.

Motherships

The three 'true' motherships identified in the base-year sector enumeration were sufficiently different in size and configuration that no useful 'categorization' on the basis of physical characteristics seems appropriate.

Inshore plants

As for the inshore sector, no systematic capacity, configuration, or size data are available to the analysts with which to categorize this sector, except to note that three of the inshore processing plants are actually onboard vessels, although these vessels are 'permanently' moored (i.e., they are effectively immobile, fixed facilities).

Estimating the probable response of any given element of the domestic pollock fishery (much less that of any individual operations) to a significant change in allocated share of the TAC is difficult. This is so, at least in part, because the ability to accommodate a significant increase in total share of the pollock TAC would be substantially dependent upon the existing effective production capacity and latent potential in the affected sectors, at least in the short run. Likewise, the probable adjustment to a significant decrease in TAC-share would be highly dependent upon the nature, relative cost efficiency, profitability, and operational flexibility of existing capacity in the affected component of the industry.

Empirical data on *'capacity'* within sectors of the domestic pollock industry now are very limited. As a result, so too is our ability to quantify probable industry response to other than marginal changes in TAC-share.

The data which are available pertain more appropriately to *'capability'*. One way to distinguish the difference between these two measures is that 'capacity' is a quantitative measure of the effective production potential and/or limits of an operation or sector, while 'capability' is a simple presence or absence indicator of the ability to produce a given output form. Beyond tabulating the presence or absence of a particular production ability within a sector or sub-sector (e.g., surimi capability), the analysis will not be able to quantitatively address the issue of capacity investment and disinvestment, by sector, in response to alternative non-marginal changes in TAC allocations.

Entry and Exit Patterns

The subject of 'entry/exit' patterns does not readily lend itself to examination of a single year's data, since very often, given the way catch and participation are tracked in BSAI groundfish fisheries, it is only by comparing one year's records to the next that patterns emerge. Therefore, this section examines a series of years, rather than focusing on the 'base-year', in an effort to discern relevant patterns. Data on participant's 'entry' into, and 'exit' from, BSAI pollock target fisheries are incomplete. No reliable data, for example, on 'inshore' processing participant's are available for inclusion. However, entry/exit patterns for 'true' mothership operations, C/Ps, and catcher boats in these fisheries can be characterized, in general terms.

In the case of *'true' motherships*, over the period 1991 through 1996, there appears to have been no entry or exit recorded for this sector, based upon available catch records.

The data on the *C/P* sector, on the other hand, suggests a relatively active pattern of movement into and out of these pollock target fisheries, as well as between sub-sector categories. Table 1.1 describes the vessel count and percent of sub-fleet of each C/P sub-sector on the basis of *'duration-of-participation'* in the BSAI pollock target fishery. For example, if one compares the three operational modes (i.e., *'surimi'*, *'surimi & fillet'*, and *'non-surimi'*), this table reveals that, of the current fleet, 2 *'surimi'* operations have been continuously active in this fishery and mode over the six year period 1991-1996, while 8 *'surimi & fillet'* vessels, and 15 *'non-surimi'*

vessels meet this criterion. On the other end of the spectrum, 1 operation in the current C/P fleet in the *'surimi'* sub-sector and 2 in the *'surimi & fillet'* mode operated only a single year of the six in this fishery. Eighteen vessels in the *'non-surimi'* sub-sector recorded only a single year's activity over this period.

Table 1.2 permits one to track the 'pattern' of exit and entry from year-to-year, by C/P operational sub-sector. Taking the *'surimi'* category for 1991, as an example, six vessels operated in this mode, in this year. At the end of the year, one operator had exited (representing just under 17% of the sub-fleet by number). In 1992, 3 vessels entered this sub-sector, resulting in a total of 8 *'surimi'* operations that year in the BSAI pollock target fishery. By year's end, four vessels had exited the sub-sector. The three entrants represented a change of 38% in the sub-fleet, in that year, while the four that exited reduced the sub-sector by 50%. The balance of the table can be interpreted in the same manner.

For the *'catcher boat'* sector (which includes operations delivering at-sea and/or inshore), these data similarly present a clear pattern of active movement into and out of the pollock target fisheries, over the period of analysis. Table 2.1 describes the size and share of the fleet (by vessel count and percent of sub-fleet) of each catcher boat length category, on the basis of *'duration-of-participation'* in the BSAI pollock target fishery. For example, if one compares the three LOA-groups, this table reveals that of the current fleet, 42 operations *<125'* have been continuously active in this fishery over the six year period 1991-1996, while only 4 vessels each, in the *125'-155'* and *>155'* categories meet this criterion.

At the lower end of the range, 35 operations in the 1996 catcher boat fleet in the *<125'* sub-sector, 12 in the *125'-155'* LOA category, and 2 operations in the *>155'* group, fished only a single year of the six, in this fishery.

Table 2.2 presents 'exit' and 'entry' patterns from year-to-year, by catcher boat LOA sub-sector. Taking the *<125'* category for 1991, for example, 70 vessels operated in this year. At the end of the year, 6 boats had exited (representing just over 8.5% of the vessels in this sub-fleet). In 1992, 26 vessels entered this sub-sector, resulting in a total of 90 operations in the *<125'* class, that year, in the BSAI pollock target fishery (representing 29% of the 1992 fleet in this vessel category). By year's end in 1992, 19 vessels in this class had exited the fishery, which reduced the sub-sector by 21%. The remainder of Table E.2.2 can be interpreted in the same manner.

In Tables 1.1 through 2.2, "exit" numbers indicate that a vessel operated in a *'processing mode'* or *'LOA'* vessel category in the indicated year, but did not operate in that category in the next year. The source data for these entry-exit profiles are from ADF&G fish tickets, Norpac files, and the Alaska Region 'blend' files.

While, due to the way targets are assigned in the 'blend' data, it was neither possible to track where entrants were coming from, nor where those exiting operations were going to, it is highly probably that most simply shifted effort between 'pollock target' fisheries and other groundfish fisheries in the BSAI (and perhaps to a lesser extent GOA).

Table 1.1 Number of Catcher/Processors, by Years of Participation, in a Processor Category in the BSAI Pollock Target Fishery (1991-96)

	Vessel Count	Percent of Vessels	Cumulative Vessel Count	Cumulative % of Vessels
`Surimi'				
6 years	2	15%	2	15%
5 years	3	23%	5	38%
4 years	2	15%	7	54%
3 years	2	15%	9	69%
2 years	3	23%	12	92%
1 year	1	8%	13	100%
`Surimi & Fillet'				
6 years	8	47%	8	47%
4 years	3	18%	11	65%
3 years	2	12%	13	76%
2 years	2	12%	15	88%
1 year	2	12%	17	100%
`Non-surimi'				
6 years	15	31%	15	31%
5 years	3	6%	18	37%
4 years	3	6%	21	43%
3 years	7	14%	28	57%
2 years	3	6%	31	63%
1 year	18	37%	49	100%

Table 1.2 Entry and Exit of Catcher/Processors by Processor Category, BSAI Pollock Target Fishery

	Vessel Count	Vessel Entries	Vessel Exits	Percent Entry	Percent Exit
`Surimi'					
1991	6	.	1	.	17%
1992	8	3	4	38%	50%
1993	5	1	0	20%	0%
1994	9	4	1	44%	11%
1995	11	3	3	27%	27%
1996	9	1	.	11%	.
`Surimi & Fillet'					
1991	15	.	3	.	20%
1992	12	0	1	0%	8%
1993	15	4	4	27%	27%
1994	11	0	3	0%	27%
1995	10	2	2	20%	20%
1996	9	1	.	11%	.
`Non surimi'					
1991	33	.	10	.	30%
1992	29	6	6	21%	21%
1993	30	7	8	23%	27%
1994	24	2	5	8%	21%
1995	25	6	6	24%	24%
1996	21	2	.	10%	.

Table 2.1 Number of Catcher Boats, by Years of Participation in the BSAI Pollock Target Fishery (by LOA category - 1991-96)

	Vessel Count	Percent of Vessels	Cumulative Vessel Count	Cumulative % of Vessels
<125'				
6 years	42	32%	42	32%
5 years	18	14%	60	45%
4 years	13	10%	73	55%
3 years	13	10%	86	65%
2 years	11	8%	97	73%
1 year	35	27%	132	100%
125'- 155'				
6 years	4	15%	4	15%
5 years	2	8%	6	23%
4 years	4	15%	10	38%
3 years	1	4%	11	42%
2 years	3	12%	14	54%
1 year	12	46%	26	100%
>155'				
6 years	4	25%	4	25%
5 years	2	13%	6	38%
4 years	3	19%	9	56%
3 years	1	6%	10	63%
2 years	4	25%	14	88%
1 year	2	13%	16	100%

Table 2.2 Entry and Exit of Catcher Boats by LOA Category in the BSAI Pollock Target Fishery

	Vessel Count	Vessel Entries	Vessel Exits	Percent Entry	Percent Exit
<125'					
1991	70	.	6	.	9%
1992	90	26	19	29%	21%
1993	83	12	23	14%	28%
1994	67	7	3	10%	4%
1995	92	28	15	30%	16%
1996	88	11	.	13%	.
125'- 155'					
1991	6	.	0	.	0%
1992	10	4	2	40%	20%
1993	11	3	1	27%	9%
1994	14	4	5	29%	36%
1995	10	1	0	10%	0%
1996	20	10	.	50%	.
>155'					
1991	7	.	0	.	0%
1992	13	6	4	46%	31%
1993	9	0	1	0%	11%
1994	10	2	2	20%	20%
1995	11	3	3	27%	27%
1996	9	1	.	11%	.

Alternative Fishing Options for BSAI Pollock Target Operations

One consideration in assessing the probable impact of the range of proposed changes in pollock TAC share, by sector, is the alternatives or options available to potentially displaced or idled capacity. For example, some of the inshore processing operations have diverse production patterns which include processing of both other groundfish and non-groundfish species. This may reveal the existence of "opportunities" for these operations to shift effort into other fisheries, should the Council choose to apportion TAC away from this sector, under I/O3. Likewise, some at-sea processors (both C/Ps and MS) have participated in target fisheries other than pollock, suggesting "opportunities" which they may exploit, if the Council allocates TAC away from their respective sectors.

This line of reasoning has two direct implications for I/O3. First, to the extent that opportunities exist which may allow an operator to, at least in part, recoup losses attributable to a sectoral reallocation of pollock TAC, the adverse economic impact of the proposed action would be reduced.[7] The second implication extends logically from the first. That is, to the extent that displaced capacity/effort in the BSAI pollock target fisheries is employed (in whole or in part) in an alternative fishing activity (offsetting some of its losses in pollock-related earnings), it will simultaneously compete with existing participants in the alternative fishery. This suggests that the impacts imposed by any of the pollock TAC reapportionment alternatives under consideration will likely extend beyond the BSAI pollock target fisheries, and those operations currently involved in them.

One possible indicator of the existence of such "opportunities", for any given operation, may be found in the record of participation in alternative target fisheries and areas/regions, during recent fishing years. When catch and production records, by individual operation, by sector, are consulted, a profile of historical activity can be constructed. However, the ability to predict with certainty how any individual operation may *actually* respond to a given change in sector TAC-share is very limited. Indeed, to borrow liberally from a well-known standard disclaimer, *"... past performance is no guarantee of future results."* Changes in (among other factors) an individual operation's physical plant, its ownership or management, or technology, domestic and world markets, and governing regulations, may impact the ability of an operator to shift effort into another fishery or area in the future, even though they may have exercised that option at some time in the past. Furthermore, the following statistics summarize only catch and production activity. These numbers **do not** purport to measure revenue from, nor economic dependence upon, a given target fishery. They are simply indicative of historic fishing patterns, which might reveal capabilities within a given operation to participate in alternative target fisheries.

With these caveats clearly in mind, if one assumes that past activity is indicative of the range of potential opportunities available to displaced or idled capacity in the pollock target fisheries of the BSAI, the following conclusions emerge.

Inshore Processors

A review of Alaska fishticket and NMFS blend data for this sector of the pollock target fishery suggests that all of the inshore and onshore processors have historically been active in a range of target fisheries. Of the eight operations listed as "inshore" under I/O3, all were significantly involved in the processing of target P.cod. Indeed, for some operations and in some years target P.cod was actually a greater percentage of their total groundfish activity than was target pollock. Five of the eight processed target yellowfin sole over this period. Activity in the target fisheries for sablefish, "O"-flats, rock sole, and turbot was also recorded by one or more

[7] It would almost certainly not be eliminated, however, since if the earnings potential from the alternative fishery were greater than or equal to that of the pollock fishery, we would have observed this operator undertaking this activity voluntarily.

of these operations. Six processed significant amounts of halibut. According to Alaska State fishticket files, all eight recorded production of herring. For five operations "crab" was an important output. Finally, six processed significant quantities of salmon, and a seventh processed a smaller amount. These data seem to suggest that the inshore processing sector is relatively diversified among both alternative groundfish and non-groundfish species. However, in 1996, for example, pollock accounted for over 80% of the total pounds processed for four of eight inshore operators; between 60% and 75% for three others; and just 25% for the final operation.

"True" Motherships

Reviewing NMFS blend records, for the historical period 1991 through 1996 (inclusive), for the "true" mothership category, the participation record indicates that three vessels participated in BSAI pollock target fisheries. In that year, all three were "substantially" dependent upon pollock (i.e., none participated in any other BSAI target fishery in that year. All were, however, active participants in the Washington/Oregon/California [W/O/C] whiting target fishery). In 1992, the same three vessels were active in BSAI pollock fisheries and, again, were substantially dependent. Their activity levels in the whiting fishery were significantly lower in 1992 than in 1991. Three other "true" motherships also recorded pollock target landings in the BSAI in 1992, although the amounts were very much smaller than those of the primary three operations. Of this latter group of MS operations, one reportedly also participated in sablefish and P.cod target fisheries, one recorded production from P.cod and arrowtooth and yellowfin sole fisheries, and one was active in P.cod, rock sole, yellowfin sole, rockfish and Atka mackerel targets.

In 1993, only the three "primary" MS operations were present in BSAI pollock target fisheries and, again, all were dependent on pollock. One recorded 100% of its fishing activity in the BSAI pollock target fishery, the other two were well over 80%, with whiting accounting for the balance. In 1994, all three of these same MS operations reported approximately 70% of their total activity in BSAI pollock, with the balance in the W/O/C whiting target. In 1995, all three "primary" MS vessels were again present and exhibited the same operational pattern as in 1994, with a split between BSAI pollock and W/O/C/ whiting targets, although one recorded 2% of its total activity in P.cod, and one recorded 4% in the yellowfin sole target fishery. In addition, one of the other MS operators, active in the BSAI pollock target fishery only in 1992, re-entered this fishery in 1995. The extent of its pollock activity was very limited, however, both in total tonnage and percent of total fishing activity. Indeed, output from the BSAI pollock target fishery represented only approximately 1% of this operations total fishing activity, with P.cod, rock sole, and yellowfin sole targets accounting for most of its production. In 1996, the three "primary" MS operations were again the sole representatives of this sector and, as previously observed, nearly all of their activity was accounted for in BSAI pollock and W/O/C whiting targets (two recorded roughly 2% of total activity in BSAI P.cod targets in this year).

Catcher/Processors

The picture, with respect to C/Ps, is far more complex. For the following discussion, these C/P operations may be usefully sub-divided into four categories, based upon output mix as reported in the NMFS blend files, ... *for the BSAI pollock target fishery.* These include, 1) "surimi-only", 2) "surimi & fillets", 3) "fillets-only", and 4) "neither surimi nor fillets", i.e., presumably H&G.

"Surimi-only" C/Ps

Over the period 1991 through 1996 (inclusive), there were thirteen "surimi-only" C/Ps active in the BSAI pollock target fisheries. In any given year, only a subset of this total actually participated in the pollock target fisheries. For example, in 1991, just six "surimi-only" C/P operations were active. Among these, three divided their fishing activity exclusively between Alaska pollock and the "whiting" target fishery off W/O/C (i.e., no other targets

were identified), two were substantially dependent upon pollock (i.e., 91% and 81%, respectively) but did target other Alaska groundfish, and one was only marginally dependent on BSAI pollock target fishing (reportedly, 28%). For this latter operation, the majority of its total fishing/processing activity in this year was associated with flatfish targets (yellowfin, rock sole, and "O"-flats in that order), although rockfish accounted for roughly 10%, as well. For the two other C/Ps, not exclusively dependent on pollock and whiting in this year, the activity mix was diverse, including small shares of P.cod, rock sole, turbot, rockfish, and Atka mackerel. Only one vessel recorded more than a single-digit percentage dependence on a species other than pollock, and that was a 10% share attributable to the yellowfin sole target.

In 1992, eight "surimi-only" C/Ps were active in the BSAI pollock target fisheries. Six were virtually "exclusively" dependent upon pollock target activity in the EEZ off Alaska, although they also fished whiting off W/O/C[8]; one was active in two other targets (11% of total in the whiting fishery, 13% in the yellowfin sole target), and one was significantly diversified (29% in yellowfin sole, 8% in Atka mackerel, <1% each in P.cod and rockfish, although the latter two records may be an aberration attributable to the way "targets" are assigned).

In 1993, just five "surimi-only" C/Ps were active. Two of these were 100% dependent on BSAI pollock target fisheries. One other targeted only pollock and whiting (84% and 16%, respectively). Two were more diversified, targeting pollock for approximately two-thirds of their total catch; targeting yellowfin sole and (in one case) whiting, and recording lesser participation in P.cod, rock sole, Atka mackerel, and "O"-flat targets.

In 1994, nine operations in this category were reported. Of these, two were virtually 100% dependent upon the BSAI pollock target fisheries. Three had significant production from yellowfin; three from rock sole targets; while four reported between 26% and 41% of their total fishing catch derived from the whiting target. In addition, P.cod made up a small percentage of the target catch for three vessels, and one had significant catches in the Atka mackerel target fishery.

Eleven C/Ps of this category were active in pollock targets in the BSAI in 1995. Three were virtually 100% dependent. Four others fished only pollock or whiting targets in this year. The yellowfin target was important for four operations. Rock sole and Atka mackerel were present in only very small numbers, then for only three different operations.

In 1996, nine "surimi-only" C/Ps were present in the BSAI pollock target fisheries. Seven were substantially involved in the W/O/C whiting fishery. Atka mackerel, rock sole and yellowfin sole target fisheries were the only others represented.

For "surimi-only" C/Ps, over this period, the majority were heavily dependent upon the BSAI pollock target fisheries. W/O/C whiting was the principal alternative fishery exploited by these operations. The pattern of participation among vessels "less dependent" on target pollock seems to indicate that yellowfin sole, then rock sole, and "O"-flats, and for one vessel Atka mackerel, have been the primary "opportunities" for diversification within this operational category.

"Surimi & fillet" C/Ps

Over the period 1991 through 1996, a total of 17 different vessels participated in pollock target fisheries, reporting production of surimi and fillets from their pollock catch. There were very few examples of these operations participating in a significant way in alternative target fisheries in the EEZ off Alaska. The notable

[8] One of these boats reportedly did 1% in arrowtooth and 2% in yellowfin. Another did 4% in yellowfin. However, these records may be anomalies attributable to the way "targets" are identified in the blend algorithm.

exceptions were (for a single year in each case), one vessel which did approximately 80% of it total fishing activity in the P.cod target and the remained in pollock[9]; one boat that reported 37% of its activity in the Atka mackerel target fishery, 3% in yellowfin sole, and the remainder in pollock targets; and two operations with catches accounting for approximately 25% of their total fishing activity from the yellowfin target, and the rest from pollock.

The balance of the BSAI activity of the remaining operations in this sector, over the six years reviewed, was very heavily concentrated on pollock targets. Indeed, there was reportedly relatively minor participation in a very narrow range of other targets, accounting in most instances for single digit percentages. These included P.cod, yellowfin sole, rockfish, and Atka mackerel.

Over the period, virtually all had some target activity in the W/O/C whiting fishery. The pattern of participation was variable, with some fishing whiting consistently over the period and others targeting whiting for only one or two seasons.

"Fillet" C/Ps

This group of pollock target vessels is substantially more numerous, over the period 1991 through 1996. A total of twenty-seven different operations were reported to have targeted pollock in the BSAI, and produced fillets (but not surimi) over these years. At the extremes, 14 operations participated in the pollock target fisheries in the BSAI all six years, while four were active only in one of the six years.

The range of diversity within this sub-sector is considerable, making summarization difficult. However, in general, when these operations are "ranked" on the basis of total tons of pollock harvested, the vessels with the greatest quantities of pollock were those with the highest percentage of their participation in pollock targets. Furthermore, there seems to be a pattern over the latter three years of this six year period which suggests that the degree of (relative) dependency of these specific boats has increased, as a percent of total fishing activity.

For those operators which are more widely diversified, i.e., had a smaller percent of their total catch represented in a pollock target fishery, the range of "other targets" reported was much more varied, than those observed in the other sub-sectors. While it is difficult to generalize, these operations reportedly participated in a range of targets which included both BSAI and GOA fisheries. As with the earlier sub-sectors, P.cod, yellowfin sole, rockfish, and Atka mackerel were all represented, often as relatively significant percentages of total catch. In addition, however, arrowtooth, deep-flats, rex sole, turbot, rock sole, and "other" groundfish were present in the "target" mix. Only five boats from this sub-sector recorded any activity in the W/O/C whiting fishery over the six years examined.

While one may not conclude that any individual operation in this sub-sector is "... less economically dependent" on BSAI pollock target fisheries than participants in the other sub-sectors described above, the aggregate level of diversity observed within this sub-group does suggest that many of these boats have the capability to exploit a number of different stocks, and that they have historically been active across a range of targets, over the course of each season, and over the six year period examined. Why this is so, is not known.

"Neither fillets nor surimi" C/Ps

When the NMFS blend data were queried as to BSAI pollock target participation over this period, a total of seventeen different operators were identified as having been "pollock target" operations, but having produced

[9] This boat was present only one year in the pollock target fishery, over this period.

... *neither fillets nor surimi*. In most cases the quantities of pollock catch were relatively small, participation in pollock fisheries was "spotty", and relative activity in pollock as a percent of total fishing activity was also small. These operations may be H&G boats which, for a given week of operation, were "targeted" pollock within the blend algorithm. Most of these boats reported a range of participation much like those of the fillet-only C/Ps, including both BSAI and GOA target fisheries. In any case, most of these operations were not consistently, nor substantially involved in BSAI pollock target fisheries over this period. They are cited here only for completeness.

The analysts intend to further examine the probable 'entry/exit' response in the BSAI pollock fisheries, based upon several limiting assumptions. Since cost data (and therefore profitability/viability measures) are unavailable at this time, this would be largely hypothetical. The 'profiles' prepared for the Council strongly suggest that one result of I/O1 (and perhaps I/O2) has been a realignment within several of the sectors, e.g., C/Ps have exhibited a marked decline in numbers and somewhat of a shift in size, while catcher vessels exhibited sharp growth in overall numbers (although smaller vessels seem to have faired less well than larger ones). The likely response of each sector, in terms of capacity displacement (or for that matter, investment in new capacity) could be a meaningful consideration in an impact analysis of TAC reapportionment.

A 'quantitative' assessment of the likely entry - exit (i.e., investment - disinvestment) patterns for each sector is beyond our capabilities, given the data (or lack thereof) on cost structure, profitability, operational diversification, etc., etc. A 'qualitative' assessment is possible, although it probably will not go significantly beyond what is already presented in this section. Furthermore, to do so would be contrary to the advise of the SSC, that we not attempt impact projections which exceed the limits of the data.

Summary of 1997 Fishing Activities by Sector

Understanding the flow of fishing effort in the BSAI groundfish fisheries throughout the year is important when talking about potential spillover impacts. To help the reader visualize these flows, five tables are presented in this section. These tables represent the Inshore, True Mothership, Surimi Catcher Processor, Fillet Catcher Processor, and Head and Gut industry sectors discussed earlier.

The first table shows the BSAI catch delivered to the inshore pollock processors in 1997. These data are broken down by BSAI target fishery, as assigned using the Blend algorithm, and report the total catch of all species in that target fishery during the week. The Inshore table indicates that most of the catch is assigned to the midwater pollock target with much smaller amounts in the Pacific cod fishery, during the weeks in January and February. When the pollock fishery closes in March, the catcher vessels shift more effort into the cod fishery and enter the yellowfin sole fishery. This general pattern continues until these fisheries are closed around the first of May. There is little activity again until the pollock B-season opens in September, and no activity reported after the B-season closed in October.

The three true motherships were taking deliveries of pollock harvested in the midwater fishery during both the A and B seasons. After the pollock A-season closed, some effort moved into the cod fishery until early April. From April until the start of the B-season there was no activity in the BSAI groundfish fishery.

Catcher processors in the Surimi, and Surimi and Fillet, sectors focused solely on the pollock fisheries when they were open. After the A-season closed, some of the vessels switched their attention to the Atka Mackerel fishery while others went into yellowfin sole. Lesser amounts of catch were reported in the cod and other flatfish fisheries. All of the Surimi C/P effort had left the Atka mackerel fishery by April 19, and only small amounts of catch were taken in the yellowfin, rockfish, and cod fisheries after that date. From the middle of June until the beginning of September no BSAI groundfish fishing activity was reported for this sector. Once the pollock B-

season opened, this sector focused on that fishery for five weeks. After the B-season closed, a small amount of catch was reported in the yellowfin fishery.

Vessels in the pollock fillet fleet participated in the bottom and midwater pollock target fisheries during the A-season. Catches in the Pacific cod target fishery during the A-season were small and sporadic. After the pollock A-season closed these vessels' catch was greatest in the Pacific cod target fishery. However, some members of this fleet made harvests in the yellowfin sole target through the middle of June. From the middle of June until the pollock B-season opened there were small amounts of catch reported in the Pacific cod, flathead sole, rock sole, and yellowfin sole targets. This fleet targeted only pollock during the B-season. Catches were consistently in the 10,000 to 25,000 mt range per week in the midwater target, and 1,000 to 5,000 mt in the bottom target fishery. By the second week in October, only participation in the yellowfin sole fishery was reported.

The Head and Gut fleet operated in several target fisheries throughout 1997. They began the year fishing in the Atka mackerel, rock sole, and Pacific cod. When the rock sole roe fishery reached its peak, during mid February, effort switched from the Atka mackerel target fishery into rock sole. This additional effort then moved back into Atka mackerel after the peak of the rock sole roe fishery. Effort in the Atka mackerel fishery then remained fairly constant until the fishery closed in April. After the Atka mackerel fishery closed, those vessels appeared to move into the yellowfin sole target fishery. Yellowfin sole remained the primary target of the fleet until it closed, due to reaching the halibut cap, around the middle of June. Target fisheries for the Head and Gut fleet during July included flathead sole, rock sole, and turbot. Between the middle of August and the end of November most of the catch was in the yellowfin sole target fishery.

Catch Delivered to Inshore Pollock Processors By Bering Sea and Aleutian Islands Target Fisheries

Week	The Range of Metric Tons of Catch by Target Fishery				
	Bottom Pollock	Pacific Cod	Midwater Pollock	Yellowfin Sole	Other Groundfish
01/25/97	-	1-1,000	25,000-50,000	-	-
02/01/97	-	1,000-5,000	25,000-50,000	-	-
02/08/97	-	1,000-5,000	25,000-50,000	-	-
02/15/97	1-1,000	1,000-5,000	25,000-50,000	-	-
02/22/97	1-1,000	1,000-5,000	25,000-50,000	-	-
03/01/97	1-1,000	5,000-10,000	1,000-5,000	-	-
03/08/97	-	5,000-10,000	1,000-5,000	-	-
03/15/97	-	5,000-10,000	1-1,000	1,000-5,000	1-1,000
03/22/97	-	1,000-5,000	1-1,000	1,000-5,000	-
03/29/97	-	5,000-10,000	-	1-1,000	-
04/05/97	-	1,000-5,000	-	1-1,000	-
04/12/97	-	5,000-10,000	-	1,000-5,000	-
04/19/97	-	5,000-10,000	-	1,000-5,000	-
04/26/97	-	1,000-5,000	-	1,000-5,000	-
05/03/97	-	1,000-5,000	-	1,000-5,000	-
05/10/97	-	-	-	-	-
05/17/97	-	-	-	1-1,000	-
05/24/97	-	-	-	1-1,000	-
05/31/97	-	-	1-1,000	-	-
06/07/97	-	-	-	-	-
06/14/97	-	-	-	-	-
06/21/97	-	-	-	-	-
06/28/97	-	-	-	-	-
07/05/97	-	-	-	-	-
07/12/97	-	-	-	-	-
07/19/97	-	-	-	-	-
07/26/97	-	-	-	-	-
08/02/97	-	-	-	-	-
08/09/97	-	-	-	-	-
08/16/97	-	-	-	-	-
08/23/97	-	-	-	-	-
08/30/97	-	-	-	-	-
09/06/97	1-1,000	-	10,000-25,000	-	-
09/13/97	-	-	25,000-50,000	-	-
09/20/97	1-1,000	-	10,000-25,000	-	-
09/27/97	1,000-5,000	-	10,000-25,000	-	-
10/04/97	1-1,000	-	25,000-50,000	-	-
10/11/97	1,000-5,000	-	25,000-50,000	-	-
10/18/97	1-1,000	1-1,000	25,000-50,000	-	-
10/25/97	-	-	-	-	-
11/01/97	-	-	-	-	-
11/08/97	-	-	-	-	-
11/15/97	-	-	-	-	-
11/22/97	-	-	-	-	-
11/29/97	-	-	-	-	-
12/06/97	-	-	-	-	-
12/13/97	-	-	-	-	-
12/20/97	-	-	-	-	-
12/27/97	-	-	-	-	-

Source: National Marine Fisheries Service 1997 Blend Data

Catch Delivered to True Motherships by Bering Sea and Aleutian Islands Target Fisheries

Week	The Range of Catch (mt) by Target Fishery		
	Bottom Pollock	Pacific Cod	Midwater Pollock
01/25/97	-	-	-
02/01/97	1-1,000	-	10,000-25,000
02/08/97	-	-	10,000-25,000
02/15/97	-	-	10,000-25,000
02/22/97	-	-	10,000-25,000
03/01/97	-	1-1,000	1-1,000
03/08/97	-	1,000-5,000	-
03/15/97	-	1,000-5,000	-
03/22/97	-	1,000-5,000	-
03/29/97	-	1,000-5,000	-
04/05/97	-	1,000-5,000	-
04/12/97	-	-	-
04/19/97	-	-	-
04/26/97	-	-	-
05/03/97	-	-	-
05/10/97	-	-	-
05/17/97	-	-	-
05/24/97	-	-	-
05/31/97	-	-	-
06/07/97	-	-	-
06/14/97	-	-	-
06/21/97	-	-	-
06/28/97	-	-	-
07/05/97	-	-	-
07/12/97	-	-	-
07/19/97	-	-	-
07/26/97	-	-	-
08/02/97	-	-	-
08/09/97	-	-	-
08/16/97	-	-	-
08/23/97	-	-	-
08/30/97	-	-	-
09/06/97	-	-	5,000-10,000
09/13/97	-	-	10,000-25,000
09/20/97	-	-	10,000-25,000
09/27/97	-	-	10,000-25,000
10/04/97	-	-	10,000-25,000
10/11/97	-	-	1-1,000
10/18/97	-	-	-
10/25/97	-	-	-
11/01/97	-	-	-
11/08/97	-	-	-
11/15/97	-	-	-
11/22/97	-	-	-
11/29/97	-	-	-
12/06/97	-	-	-
12/13/97	-	-	-
12/20/97	-	-	-
12/27/97	-	-	-

Source: National Marine Fisheries Service 1997 Blend Data

Pollock Surimi and Surimi & Fillet C P Fleet's Catch by Bering Sea and Aleutian Islands Target Fisheries (CDQ Harvests are Excluded)

Week	The Range of Catch (mt) by Target Fishery							
	Atka Mackerel	Bottom Pollock	Pacific Cod	Other Flatfish	Midwater Pollock	Rockfish	Yellowfin Sole	No Retained Catch
01 25 97	-	-	-	-	1,000-5,000	-	-	1-1,000
02 01 97	-	1,000-5,000	-	-	25,000-50,000	-	-	-
02 08 97	-	1,000-5,000	-	-	25,000-50,000	-	-	-
02 15 97	-	1,000-5,000	-	-	25,000-50,000	-	-	-
02 22 97	-	5,000-10,000	-	-	10,000-25,000	-	-	1-1,000
03 01 97	1-1,000	1,000-5,000	-	-	1,000-5,000	-	1-1,000	-
03 08 97	1,000-5,000	-	-	-	-	-	1,000-5,000	-
03 15 97	1,000-5,000	-	1-1,000	1-1,000	1,000-5,000	-	5,000-10,000	-
03 22 97	1,000-5,000	1,000-5,000	-	1,000-5,000	1-1,000	-	1,000-5,000	-
03 29 97	1-1,000	-	1-1,000	-	-	-	1-1,000	-
04 05 97	-	-	-	-	-	-	1,000-5,000	-
04 12 97	1,000-5,000	-	-	-	-	-	1,000-5,000	-
04 19 97	1,000-5,000	-	-	-	-	-	1,000-5,000	-
04 26 97	-	-	-	-	-	-	1,000-5,000	-
05 03 97	-	-	1-1,000	-	-	-	1-1,000	-
05 10 97	-	-	1-1,000	-	-	1-1,000	1-1,000	-
05 17 97	-	-	-	-	-	-	1-1,000	-
05 24 97	-	-	-	-	-	-	1-1,000	-
05 31 97	-	-	-	-	-	-	1-1,000	-
06 07 97	-	-	-	-	-	-	1-1,000	-
06 14 97	-	-	-	-	-	-	1-1,000	-
06 21 97	-	-	-	-	-	-	-	-
06 28 97	-	-	-	-	-	-	-	-
07 05 97	-	-	-	-	-	-	-	-
07 12 97	-	-	-	-	-	-	-	-
07 19 97	-	-	-	-	-	-	-	-
07 26 97	-	-	-	-	-	-	-	-
08 02 97	-	-	-	-	-	-	-	-
08 09 97	-	-	-	-	-	-	-	-
08 16 97	-	-	-	-	-	-	-	-
08 23 97	-	-	-	-	-	-	-	-
08 30 97	-	-	-	-	-	-	-	-
09 06 97	-	1,000-5,000	-	-	25,000-50,000	-	-	-
09 13 97	-	-	-	-	50,000+	-	-	-
09 20 97	-	-	-	-	25,000-50,000	-	-	-
09 27 97	-	-	-	-	25,000-50,000	-	-	-
10 04 97	-	-	-	-	25,000-50,000	-	-	-
10 11 97	-	-	-	-	-	-	1-1,000	-
10 18 97	-	-	-	-	-	-	1-1,000	-
10 25 97	-	-	-	-	-	-	1-1,000	-
11 01 97	-	-	-	-	-	-	1-1,000	-
11 08 97	-	-	-	-	-	-	1-1,000	-
11 15 97	-	-	-	-	-	-	1-1,000	-
11 22 97	-	-	-	-	-	-	1-1,000	-
11 29 97	-	-	-	-	-	-	1-1,000	-
12 06 97	-	-	-	-	-	-	1-1,000	-
12 13 97	-	-	-	-	-	-	-	-
12 20 97	-	-	-	-	-	-	-	-
12 27 97	-	-	-	-	-	-	-	-

Source: National Marine Fisheries Service 1997 Blend Data

Pollock Fillet C/P Fleet's Catch by Bering Sea and Aleutian Islands Target Fisheries (CDQ Harvests were Excluded)

Week	The Range of Catch (mt) by Target Fishery						
	Bottom Pollock	Pacific Cod	Flathead Sole	Midwater Pollock	Rock Sole	Yellowfin Sole	No Retained Catch
01/25/97	-	-	-	1-1,000	-	-	-
02/01/97	1,000-5,000	1-1,000	-	10,000-25,000	-	-	-
02/08/97	-	1-1,000	-	10,000-25,000	-	-	-
02/15/97	1,000-5,000	-	-	10,000-25,000	-	-	-
02/22/97	1,000-5,000	1-1,000	-	10,000-25,000	-	1-1,000	-
03/01/97	-	1,000-5,000	-	1-1,000	-	1-1,000	-
03/08/97	-	1,000-5,000	-	-	-	1-1,000	1-1,000
03/15/97	1-1,000	1,000-5,000	-	1-1,000	-	1-1,000	1-1,000
03/22/97	1-1,000	5,000-10,000	-	-	-	1,000-5,000	-
03/29/97	-	5,000-10,000	-	1-1,000	-	-	-
04/05/97	-	1,000-5,000	-	-	-	1,000-5,000	-
04/12/97	-	1,000-5,000	-	-	-	1,000-5,000	-
04/19/97	-	1,000-5,000	-	-	-	1,000-5,000	-
04/26/97	-	1-1,000	-	-	-	1-1,000	-
05/03/97	-	-	-	-	-	1-1,000	-
05/10/97	-	-	-	-	1-1,000	-	-
05/17/97	-	-	-	-	-	1-1,000	-
05/24/97	-	-	-	-	-	1-1,000	-
05/31/97	-	-	-	-	-	1,000-5,000	-
06/07/97	-	-	-	-	-	1-1,000	-
06/14/97	-	-	-	-	-	1,000-5,000	-
06/21/97	-	-	-	-	1-1,000	-	-
06/28/97	-	-	-	-	-	-	-
07/05/97	-	-	-	-	1-1,000	-	-
07/12/97	-	-	-	-	1-1,000	-	-
07/19/97	-	-	1-1,000	-	1-1,000	-	-
07/26/97	-	-	1-1,000	-	-	-	-
08/02/97	-	-	-	-	-	-	-
08/09/97	-	1-1,000	-	-	-	-	-
08/16/97	-	1-1,000	-	-	-	1-1,000	-
08/23/97	-	-	-	-	1-1,000	1,000-5,000	-
08/30/97	-	-	-	-	-	1-1,000	-
09/06/97	1,000-5,000	-	-	5,000-10,000	-	-	-
09/13/97	1,000-5,000	-	-	10,000-25,000	-	-	-
09/20/97	1,000-5,000	-	-	10,000-25,000	-	-	-
09/27/97	-	-	-	10,000-25,000	-	-	-
10/04/97	1-1,000	-	-	10,000-25,000	-	-	-
10/11/97	-	-	-	-	-	1-1,000	-
10/18/97	-	-	-	-	-	1-1,000	-
10/25/97	-	-	-	-	-	1-1,000	-
11/01/97	-	-	-	-	-	1-1,000	-
11/08/97	-	-	-	-	-	1-1,000	-
11/15/97	-	-	-	-	-	1-1,000	-
11/22/97	-	-	-	-	-	1-1,000	-
11/29/97	-	-	-	-	-	-	-
12/06/97	-	-	-	-	-	-	-
12/13/97	-	-	-	-	-	-	-
12/20/97	-	-	-	-	-	-	-
12/27/97	-	-	-	-	-	-	-

Source: National Marine Fisheries Service 1997 Blend Data

H&G Fleet's Catch by Bering Sea and Aleutian Islands Target Fisheries

Week	The Range of Catch (mt) by Target Fishery												
	Atka Mackerel	Bottom Pollock	Pacific Cod	Other Flatfish	Rockfish	Flathead Sole	Other Groundfish	Midwater Pollock	Rock Sole	Turbot	Arrowtooth	Yellowfin Sole	No Retained Catch
01/25/97	5,000-10,000	-	1-1,000	-	-	-	-	-	5,000-10,000	-	-	-	-
02/01/97	5,000-10,000	-	1,000-5,000	-	-	-	-	-	1,000-5,000	-	-	-	-
02/08/97	1,000-5,000	1-1,000	1,000-5,000	-	-	-	-	-	5,000-10,000	-	-	-	-
02/15/97	1,000-5,000	1-1,000	1,000-5,000	-	-	-	-	-	10,000-25,000	-	-	-	-
02/22/97	1,000-5,000	1-1,000	1,000-5,000	-	1,000-5,000	-	-	-	5,000-10,000	-	-	1-1,000	-
03/01/97	1,000-5,000	-	1,000-5,000	-	1,000-5,000	1-1,000	-	-	1,000-5,000	-	-	1,000-5,000	-
03/08/97	5,000-10,000	-	1,000-5,000	-	1-1,000	1-1,000	-	-	1,000-5,000	-	-	1,000-5,000	-
03/15/97	5,000-10,000	-	1,000-5,000	-	1-1,000	1-1,000	-	-	1,000-5,000	-	-	1,000-5,000	-
03/22/97	5,000-10,000	-	1-1,000	-	1,000-5,000	-	-	-	-	-	-	1,000-5,000	-
03/29/97	1,000-5,000	-	1,000-5,000	-	1,000-5,000	1-1,000	-	-	1-1,000	-	-	1-1,000	-
04/05/97	1,000-5,000	-	1-1,000	-	1,000-5,000	1,000-5,000	-	-	-	-	-	-	-
04/12/97	5,000-10,000	-	1-1,000	-	-	1,000-5,000	-	-	-	-	-	1-1,000	1-1,000
04/19/97	5,000-10,000	-	1-1,000	-	1-1,000	-	-	-	-	-	-	1,000-5,000	-
04/26/97	1,000-5,000	-	-	-	-	1-1,000	-	-	1-1,000	-	-	1,000-5,000	-
05/03/97	-	-	1,000-5,000	-	-	1-1,000	1-1,000	-	1-1,000	-	-	1,000-5,000	-
05/10/97	-	1-1,000	1,000-5,000	-	1-1,000	1-1,000	-	-	1-1,000	-	1-1,000	1,000-5,000	-
05/17/97	-	-	-	-	-	1-1,000	-	-	1-1,000	-	-	5,000-10,000	-
05/24/97	-	-	1-1,000	-	-	-	-	-	1-1,000	-	-	5,000-10,000	-
05/31/97	-	-	-	-	-	-	-	-	1-1,000	-	-	1,000-5,000	-
06/07/97	-	-	-	-	-	-	-	-	1-1,000	-	-	5,000-10,000	-
06/14/97	-	-	-	1-1,000	-	-	-	-	1,000-5,000	-	-	5,000-10,000	1-1,000
06/21/97	-	-	1-1,000	1-1,000	-	-	-	-	1-1,000	-	1-1,000	1-1,000	-
06/28/97	-	-	1-1,000	-	-	-	-	-	-	-	-	-	-
07/05/97	-	-	1-1,000	-	-	1,000-5,000	-	-	1-1,000	1-1,000	-	-	-
07/12/97	-	-	-	-	-	1,000-5,000	-	-	1-1,000	1-1,000	-	-	-
07/19/97	-	-	-	-	-	1,000-5,000	-	-	1,000-5,000	1-1,000	-	-	-
07/26/97	-	-	1-1,000	-	-	1,000-5,000	-	-	1,000-5,000	1-1,000	1-1,000	-	-
08/02/97	-	1-1,000	1-1,000	1-1,000	-	-	-	-	-	-	-	-	-
08/09/97	-	-	1-1,000	-	-	-	-	-	-	-	-	-	-
08/16/97	-	-	1-1,000	1-1,000	-	1-1,000	-	-	1-1,000	-	-	1,000-5,000	-
08/23/97	-	-	-	1-1,000	-	1-1,000	-	-	1-1,000	-	-	10,000-25,000	-
08/30/97	-	-	-	1-1,000	-	1-1,000	-	-	1,000-5,000	-	-	5,000-10,000	-
09/06/97	-	1-1,000	-	1-1,000	-	1-1,000	-	1-1,000	1-1,000	-	-	10,000-25,000	-
09/13/97	-	1-1,000	-	1-1,000	-	1-1,000	-	1,000-5,000	1-1,000	-	-	5,000-10,000	-
09/20/97	-	-	-	-	-	-	-	1-1,000	-	-	-	5,000-10,000	-
09/27/97	-	-	-	-	-	1-1,000	-	1-1,000	-	-	-	5,000-10,000	-
10/04/97	-	1-1,000	1-1,000	-	-	1-1,000	-	-	-	-	-	5,000-10,000	-
10/11/97	-	-	-	-	-	-	-	-	-	-	-	5,000-10,000	-
10/18/97	-	-	-	-	-	1-1,000	-	-	-	-	-	5,000-10,000	-
10/25/97	-	-	-	-	-	-	-	-	-	-	-	5,000-10,000	-
11/01/97	-	-	-	-	-	-	-	-	-	-	-	5,000-10,000	-
11/08/97	-	-	-	-	-	-	-	-	-	-	-	1,000-5,000	-
11/15/97	-	-	-	-	-	-	-	-	1-1,000	-	-	1,000-5,000	-
11/22/97	-	-	-	-	-	-	-	-	-	-	-	1,000-5,000	-
11/29/97	-	-	-	-	-	-	-	-	-	-	-	1-1,000	-
12/06/97	-	-	-	-	-	-	-	-	-	-	-	1-1,000	-
12/13/97	-	-	-	-	-	-	-	-	-	-	-	-	-
12/20/97	-	-	-	-	-	-	-	-	-	-	-	-	-
12/27/97	-	-	-	-	-	-	-	-	-	-	-	-	-

Source: National Marine Fisheries Service 1997 Blend Data

Fishing in the Russian EEZ

Some limited opportunity apparently existed, over the period of interest, for U.S. groundfish operations to participate in fisheries in the Russian western Bering Sea and North Pacific EEZ. Federal regulations require that domestic fishing vessels 'check-in' and 'check-out' when moving between fisheries in the U.S. and Russian zones. The NMFS Enforcement Office, Juneau, maintains records of such activity. They report that these data were not collected for 1991 (the first year of this profile), but were compiled beginning in 1992.

When these 'check-in'/'check-out' data were compared to NMFS 'blend' data, to identify vessels which participated both in Russian EEZ fisheries and in the U.S. BSAI *pollock target* fishery, the following results emerged. In 1992, there were 43 U.S. vessels which reported their intent to transit between the U.S. and Russian EEZs (35 'checked-out'; 41 'checked-in'). Of these, 22 had some history of participation in a BSAI pollock target fishery between 1991 and 1996. In 1993, the total number of U.S. fishing vessels reporting in to NMFS Enforcement on their intentions to move between the zones was 12 (8 'checked-out'; 11 'checked-in'). Only one of these operators had any link to a pollock target fishery over the period of interest. The 1994, numbers were 16 total (13 'checking-out'; 14 'checking-in'). Only one of these (the same vessel as in 1993) had a history of participation in the pollock target fisheries. Records show that in 1995, again, 16 vessels reported their intention to transit between the zones (14 'checked-in'; the same number 'checked-out'). Among these were three with histories of activity in BSAI pollock target fisheries over the period of assessment. Finally, in 1996, eight vessels reported to NMFS enforcement (5 'checked-out'; 6 'checked-in'). Of these eight operations, five had participation histories in pollock target fisheries between 1991 and 1996, inclusive. All the vessels involved were *C/Ps*, within the definition of this analysis, having operated as such in the U.S. EEZ. Despite this fact, many reportedly operated as "motherships" or "catcher boats" while fishing in the Russian zone.

No operations defined within the I/O3 analysis as *'true' motherships* exhibited these U.S. to Russian zone switching patterns, over the period. And no operations, identified as *'catcher boats'* within the I/O3 analytical definitions, fished in both the Russian EEZ and in the BSAI *pollock target* fishery, over this period, according to NMFS Enforcement records.

Information regarding fishing activities in the Donut Hole has not been compiled, but there has been a moratorium on fishing there since 1993.

Tax Issues

Tax Payments and Net Benefits Calculations

Transfer payments are expenditures made for a purpose other than procuring goods and services. Example of transfer payments are unemployment compensation, social security benefits, welfare payments, gifts to charities, and taxes. Economic theory indicated that transfer payments should not be included in net benefits calculations. Therefore, while the issue of taxes may be of interest, because of their distributional impacts, they should not be part of any net national benefits discussion.

Some portion of the annual total offshore production is transshipped or directly landed outside Alaska and is, therefore, not subject to 'local' or 'State' landings taxes (although it may be taxed elsewhere). Taxes 'foregone' on these quantities of output have been characterized as 'leakages' by the Council, and an assessment of the probable magnitude of such leakages have been requested, within the I/O3 context.

In order to be fully responsive to the Council's request, it will be necessary to compare 'tons-taxed' to 'total-tons' produced, on an annual basis, an *assume* that any difference observed represents the amount of catch which was landed 'outside' Alaska taxing jurisdictions. This ratio could be used to 'extrapolate' potential tax leakages attributable to offshore catches landed outside Alaska, for a given TAC -apportionment.

The weaknesses with this approach are several, however. First, comparing total catch amounts from different data sources, as previously noted, can introduce 'apparent' differences, when none actually exist. Second, as the apportionment of TAC between onshore and offshore sectors changes (due to Council action), composition and operating patterns may change in response. These changes are largely unpredictable, but could influence the size of future catches landed outside Alaska-taxing jurisdictions (or alter the pattern between jurisdictions). Third, taxes are 'transfer payments', and therefore cannot be regarded as 'benefits', within the context of a net benefit analysis. Care must be taken in presenting any 'estimate' of tax leakages to avoid misunderstanding of this point.

Alaska Fish Taxes

The State of Alaska collects revenues from five different types of fish taxes. Three of the taxes apply to pollock harvested in, or transported into, state waters. These taxes are collected based on the type (location) of processor and the status of the fish. Raw fish are taxed under the Fisheries Business Tax (*AS 43.75*). Two rates apply to pollock depending on the type of processor. Fish landed at shorebased processors are taxed a rate of 3% of their ex-vessel value. Floating processors are defined as businesses within the State of Alaska that are not permanently attached to land or does not remain in the same location for the entire year. These floating processors (sometimes called floaters or inshore motherships) are taxed at 5% of the ex-vessel value of the fish they process. Catcher processors and at-sea motherships that land or transfer product within state waters are subject to a Fishery Resource Landing Tax (*AS 43.77*). This tax is levied at 3% of the ex-vessel value of the unprocessed fish. Finally, the Seafood Market Assessment (*Sec. 16.51.120*) tax is assessed at a rate of 0.3% of the ex-vessel value of the fish. The Seafood Market Assessment is paid in addition to the Fisheries Business Tax and the Fishery Resource Landings Tax.

The table below reports the Alaska state level fish taxes paid on pollock for the calendar years 1995 and 1996. Taxes reported in the table reflect only those collected for pollock processed (or landed) in the Bering Sea or Aleutian Islands. It is not possible to provide a breakout of taxes paid only for pollock harvested from the Bering Sea and Aleutian Islands. The Fisheries Business Tax is reported based on where the fish was processed. This means that a plant in Unalaska could take deliveries from a vessel harvesting pollock in the western Gulf, and the taxes would be assessed in Unalaska. The opposite scenario may also have occurred. Pollock harvested from

the Bering Sea or Aleutian Islands may have been transported to Sand Point for processing. Taxes resulting from these deliveries would be credited to the port of Sand Point.

Problems may also exist in determining whether Resource Landings Taxes paid on fish harvested in the Bering Sea were reported there. The taxes are reported based on location of the fish where landed. If a vessel harvested products in the Bering Sea and off-loaded in the Gulf of Alaska, the taxes would be reported in the Gulf location.

BERING SEA[1] FISHERIES BUSINESS TAX[2] (Raw Fish Tax)

PAID BY: Inshore[5]	POUNDS	VALUE	ESTIMATED PRICE	TAX RATE	REVENUE
Shorebased	840,717,171	$84,273,515		3.0%	$2,528,205
Floating	73,966,138	$4,766,612		5.0%	$238,331
Total 1995	**914,683,309**	**$89,040,127**	**$0.097**	**3.11%**	**$2,766,536**
Shorebased	683,825,490	$56,644,800		3.0%	$1,699,344
Floating	175,261,183	$12,685,276		5.0%	$634,264
Total 1996	**859,086,673**	**$69,330,076**	**$0.081**	**3.37%**	**$2,333,608**

BERING SEA[1] FISHERY RESOURCE LANDING TAX[3] (Processed Fish Tax)

Offshore[5]	POUNDS	VALUE	ESTIMATED PRICE	TAX RATE	REVENUE
Total 1995	**1,473,380,396**	**$135,550,996**	**$0.092**	3.0%	**$4,066,530**
Total 1996	**1,329,327,476**	**$109,010,905**	**$0.082**	3.0%	**$3,270,327**

BERING SEA[1] SEAFOOD MARKET ASSESSMENT[4] (Marketing Tax)

All Processors	POUNDS	VALUE	ESTIMATED PRICE	TAX RATE	REVENUE
1995	**2,192,776,419**	**$224,591,123**	**$0.102**	0.3%	**$673,773**
1996	**2,188,487,972**	**$178,340,981**	**$0.081**	0.3%	**$535,023**

Source: Bering Sea Fisheries Business Tax Returns & Fishery Resource Landing Tax Returns (tax periods are based on the returns submitted for the calendar years 1995 or 1996)

1 Bering Sea (as defined here) corresponds to the following share locations: Atka, Akutan, Saint Paul, Unalaska, the Unorganized Borough, Pending and Outside (where Outside is long. and lat. outside Borough and municipal boundaries and Pending is where share location has not yet been identified.)

2 Estimated revenue is calculated using a 3% tax rate for shore processors and a 5% tax rate for floating processors. Actual revenue, pounds and value will vary due to amended returns. Revenue will also vary as a result of carryforwards from previous years. Additionally, 50% of this revenue is shared to qualifying communities.

3 Estimated revenue is calculated using a 3% tax rate. Actual pounds and value will vary due to amended returns. Revenue will also vary as a result of carryforwards from previous years, Additionally, 50% of this revenue is shared to qualifying communities.

4 Estimated Revenue is calculated using a 0.3% tax rate. Actual revenue, pounds and value will vary due to amended returns. Revenue will also vary because of carryforwards from previous years.

5 The offshore category will be slightly under represented (and the inshore sector slightly over represented) if catcher processors or true motherships process some of their pollock within State waters and are subject to the Fisheries Business Tax. However, by doing so they would be subject to a 5% tax rate, instead of the 3%, so it is unlikely that large amounts pollock in the offshore sector would be processed within State waters.

The differences between the pounds of fish reported in the NMFS Blend data sets for 1995 and 1996, and the pounds taxed by the Alaska Department of Revenue reported below. These differences result from the way the data are collected (and estimated), as discussed above, and the amount of fish that was not taxed in Alaska.

	AK Revenue Landing Tax	**NMFS** Offshore	% Difference
1995 BSAI Pollock	1,473,380,396	1,797,899,331	-18.05%
1996 BSAI Pollock	1,388,646,983	1,654,519,021	-16.07%
	AK Revenue Business Tax	**NMFS** Inshore	% Difference
1995 BSAI Pollock	914,683,309	915,068,440	-0.04%
1996 BSAI Pollock	859,086,673	863,125,980	-0.47%

In addition to the fish taxes collected by the State, local governments within Alaska also collect fish taxes. The table below lists the tax rates assessed by the local governments throughout Alaska. These rates apply to the ex-vessel value of raw fish landed in the borough or city. Only the cities of King Cove, Sand Point, Akutan, and Unalaska have processors that reported taking landings of Bering Sea or Aleutian Islands pollock during 1996. The remaining cities and boroughs have been included to provide a complete list of local fish taxes, although they do not generate taxes from Bering Sea and Aleutian Islands pollock.

Fish that are processed in the EEZ off Alaska's coast and never taken into Alaskan waters are not subject to Alaskan state or local taxes. These products may be shipped directly out of the U.S., or they may be taken to another state. Under either case, they are not required to pay Alaska fish taxes.

Pollock harvested off Alaska's coast, but not subject to Alaska state fish taxes, has been raised as an area of concern. These "leakages" may be estimated in a crude fashion, but the true magnitude cannot be determined with existing data. Without knowing the comparability of pounds reported in the tax files, to the landings estimates in the Fishtickets and Blend data, the extent of leakage cannot be verified, however we can extend the crude leakage estimates by applying that ratio to alternative allocation scenarios.

Regional Raw Fish Taxes

Alaska City and Borough Raw Fish Taxes (These taxes are paid in addition to the State taxes)			
Location	Borough	City	Total
King Cove	2%	2%	4%
Sand Point	2%	2%	4%
Akutan	2%	1%	3%
Unalaska	0%	2%	2%
Atka	0%	1%	1%
Pilot Point	0%	3%	3%
St. George	0%	3%	3%
Togiak	3%	2%	5%

Estimating the amount of tax "leakage" requires that we know both the total amount of pollock harvested from the Bering Sea and Aleutian Islands and the total amount of that pollock that was taxed. The total amount of pollock harvested from the Bering Sea and Aleutian Islands is estimated using the NMFS Blend data system. The pounds of pollock subject to the various State taxes are determined using a different system. The Alaska Department of Revenue accepts taxable pounds of raw fish to be reported based on:

(1) Actual scale weight
(2) NMFS Volumetric Measurements
(3) NMFS Recovery Rates
(4) Other.

See 15 AAC 77.045 for the complete statute. Comparing weights derived from two separate sources confounds the problem of determining how many pounds of pollock were not subject to State of Alaska taxes.

Oregon Fish Taxes

Chapter 635, Division 6 - Department of Fish and Wildlife, of the Oregon Administrative Rules states that fish taxes are levied at 1.09% of the ex-vessel value (salmon and steelhead taxes are levied at 3.15%). However, over the last ten years the largest reported pollock landing in Oregon was 148 pounds[10]. These rare landings of small amounts of pollock are likely the result of bycatch in other target fisheries. Therefore, only insignificant amounts of Alaskan pollock have been landed and taxed in Oregon over the past ten years.

Washington Fish Taxes

Fish taxes are not paid on round pollock that are caught from waters off Alaska's coast, and landed in Washington, or on processed pollock products (i.e., surimi) landed in Washington, when the fish were caught from waters off Alaska. The only taxable fish in Washington, caught from waters off Alaska's coast, are chinook

[10] Personal communication with Jerry Lukas of the Oregon Department of Fish and Wildlife.

salmon harvested from southeast Alaska waters and caught by trolling. Chapter 82.27 Revised Code of Washington, contains the official language regarding fish tax laws.

Other State and Federal Taxes

A variety of other state taxes are collected based on revenues earned through fishing pollock. State business and income taxes are examples. Federal taxes are also collected through business and personal income taxes. A full examination of tax-related issues would ideally include an assessment of these types of taxes, in addition to the fish taxes discussed above. Tracing these taxes through the system is well beyond the scope of this analysis. The information required to study this complex issue in detail is not currently available, and likely could not be collected if the analysts were given additional time and resources.

Other Relevant Issues

The following issues have been raised at one time or another in discussions leading up to the current analysis of alternatives. For the most part these are issues for which we have little or no information, or for which we need some Council guidance on how you expect these issues to be addressed.

Senator Steven's Bill

The 'American Fisheries Act' has been proposed in Congress, which would among other things require a 75% U.S. ownership for fishing vessels to remain active in the EEZ. Other provisions would 'phase out' large vessels regardless of ownership. While a specific analysis of this proposed legislation is beyond the scope of this project, there are implications to the I/O3 consideration. If approved, this bill could result in a significant capacity reduction (by the disqualification of several vessels involved in the pollock fisheries), or at least the re-structuring of the ownership of those vessels. It is unclear whether resolution of this bill will occur prior to the Council's scheduled June decision on the inshore/offshore allocations.

Initial examination of Coast Guard records shows that 15 vessels, which currently target pollock off Alaska, do not fit the 75% ownership requirement proposed by the bill. Attachment 1 contains the information provided by the Coast Guard regarding these vessels, though the accuracy of some of that information has been questioned. At this time it is the 'best' that we have. What we can provide to the Council in April is information concerning the total catch of pollock attributable to those vessels.

Excessive Shares Issue

During previous Council discussions the issue of 'excessive shares' has been raised, and reference to shares of pollock harvest and processing is contained in the Council's I/O3 Problem Statement. It has been suggested that the current Magnuson-Stevens Act contains specific guidance relative to this issue. The Act references 'excessive shares' in two places: (1) Section 303(d)(5)(c) speaks to IFQ allocations, and provides for "fair and equitable initial allocation of IFQs, and prevents any person from acquiring an excessive share of the IFQS issues...". No definition of 'excessive' is provided.

(2) National Standard 4, which has long been in place within the Act, states that:

"*Conservation and management measures shall not discriminate between residents of different States. If it becomes necessary to allocate or assign fishing privileges among various U.S. fishermen, such an allocation shall be (A) fair and equitable to all such fishermen, (B) reasonably calculated to promote conservation; and, (C) carried out in such a manner that no particular individual, corporation, or other entity acquires an excessive share of such privileges*".

No definition of 'excessive' is provided. Further, the context of this language in the Act seems to refer to an allocation, or assignment, of fishing privileges in terms of whether such allocation would directly result in some entity acquiring an excessive share. The inshore/offshore allocations would assign fishing privileges to certain sectors of fishermen, based partly on where they deliver their catch, but no alternative or option being considered within this amendment would make allocations to individual entities. If, for example, a particular company has acquired a certain percentage share of the harvest within the existing, or future, allocations to industry sectors, that would appear to be outside the context of the excessive share language of the Act. It may nevertheless be an issue of concern to the Council.

We may be able to provide information, on a company-specific level, which illustrates the relative shares of harvest and processing of pollock (though a strict interpretation of confidentiality laws may preclude us providing such information). Certain information of this type has been provided to the Council previously in public testimony (September 1997 meeting), or is generally known through industry publications or other sources. Beyond that, we need guidance regarding what, if any, additional information we can provide to the Council on this issue.

Concentration/Outmigration of Capital

This issue is specifically raised in the Council's Problem Statement and is at least related to the issue above, in the sense that relative share of the fishery might correspond to capital concentration. This is further related to the overall issue of industrial organization, which in turn is associated with a variety of other issues raised in public testimony and/or Council discussions (printed document submitted by Council member Pereyra). These include: market opportunity; market control; vertical integration, transfer pricing; foreign ownership of harvest and processing capacity; and, the general economic health of each sector as a whole since the original allocations were made in 1992.

While much of the information we are gathering relates to these issues, there is no focused analysis envisioned which would specifically address each of these issues, or attempt to relate these issues specifically to the alternatives under consideration. For example, we do not expect to be able to provide specific information on the current capital structure, the evolution of capital structure over the past several years, or the potential future capital structure of the pollock industry or of specific companies. Such information is either unavailable or would require an inordinate amount of available staff time to research. As with the 'excessive share' issue, we are seeking guidance from the Council regarding your expectations on this issue.

Relationship to overall CRP

In September the Council requested that this issue be discussed in the analysis. A general discussion will be developed for the EA/RIR, after other components of the analysis are completed.

Air/water environmental impacts

Among the issues raised in September (printed document submitted by Council member Pereyra) were potential environmental impacts related to clean air and water, including a review of EPA records regarding violations by shoreside plants. We have devoted no resources to pursuing this issue - air and water discharge are monitored by other authorities, including the EPA, and have not been identified by the analysts, nor by the Council to this point, as a high priority for analysis.

Other Analytical Considerations

Community/Social Impacts

Community and social impacts have been a concern of the Council relative to this issue, and the new Magnuson-Stevens Act places additional emphasis on consideration of dependent communities, relative to any actions taken by a Council. Immediately following last September's Council meeting we contracted with Impact Assessment, Inc. (IAI) to conduct an analysis of potential social and community impacts, based on the alternatives formulated by the Council. The primary focus of that research will be two-fold: (1) updating the relevant community and sector profiles compiled under previous initiatives, with an emphasis on describing the linkages between the industry sectors involved and the communities involved in the pollock fisheries, and (2) assessing potential impacts to those sectors, and their participants, from the allocation alternatives under consideration.

In December we supplemented that contract with additional funds, primarily due to concerns that the overall analyses as planned would be deficient in terms of describing the specific sector/community linkages, particularly employment-related linkages, and particularly for the Puget Sound (Seattle) region. Because these sector linkages are less obvious in the Puget Sound economy than in Alaska communities, a majority of the *supplemental* resources are being devoted to assessing these linkages in the Puget Sound area. This is not intended to detract in any way from the original research focus, or to detract from the information being developed for Alaska communities; rather, it is a reflection of the extra effort anticipated to develop a comparable 'picture' for the Puget Sound area. We expect the research by IAI to address all sector linkages to the Seattle area (i.e., catcher vessels, at-sea processors, motherships, and shore-based processors). We also hope that their work will shed additional light on the employment issue, particularly for the catcher vessel sector where we have little quantitative information.

We will have a report available in early April, and a presentation from IAI at the April meeting in Anchorage (week of April 20-25).

Regarding the decision to not employ input/output (IMPLAN type) models to derive distributional, community level impacts - discussions among staff and SSC members underscored the inability of such models to accurately capture such impacts, without the inclusion of cost data in those models. Rather than expend such effort, and risk providing the Council with misleading results, we felt our efforts were better directed in the manner described above.

CDQ Program Impacts

In September, as well as in other discussions, the issue of impacts to the CDQ program has been raised. At the September meeting we received a preliminary report from the State of Alaska Department of Community and Regional Affairs (DCRA) which attempted to summarize the linkages between the CDQ organizations and the pollock industry sectors. Given the business relationships involved, and planned development projects related to pollock and other CDQ species, the goal is to define these relationships and assess whether and to what extent a change in the inshore/offshore pollock allocations might impact the CDQ program and the member communities.

Following the September meeting we requested assistance on this issue from the State of Alaska, specifically from DCRA (as well as on the separate amendment to extend the pollock CDQ program at 7.5%, beyond 1998 - we expect to review that analysis in April as well). An initial survey was sent to the CDQ groups by DCRA to begin this process. Since that time we have devoted Council funding to the State of Alaska to help cover the personnel and subcontracting costs associated with this task. Current understanding is that they have contracted

with McDowell Group to assist in a revised survey process and subsequent analyses. The Council's funding support to the State specifies a written report in time for the April meeting, as well as presentation of the report at the April meeting. That report will become part of the overall analytical package for April review. It is anticipated that information gathered in this process will also be relevant to the separate amendment to extend the pollock CDQ program.

Industry submitted data

As the I/O3 analytical process has developed, staff have been queried regarding the availability of data on a variety of issues, and whether industry submitted information can be used to supplement the analyses. While we recognize that much of the information which could be provided would be useful to both the analysts and the Council decision-making process, we are sensitive to using such data in our analyses, particularly where it would create an asymmetry between sector information. In December the SSC also discussed this issue and stated in their minutes:

> *"The issue of voluntary industry data submissions presents a challenge to the analysts. While the SSC welcomes and encourages industry cooperation, methods and standards for appropriate integration of such data into the analysis are not yet clearly established and will require further consideration by the staff and SSC."*

After several discussions of this issue, which included members of various industry sectors involved, we as staff are suggesting the following basic policy: If information can be provided which will help fill existing holes in the analysis, and result in symmetry in the information across sectors, we will accept that information subject to our own internal review. We will clearly state in the analysis where the information came from, as well as any caveats or concerns we have with the use of that information. In the case of the employment information for the at-sea sector (see discussion under 'Employment' chapter), we need to see what is submitted and review that data along with personnel from the Alaska Department of Labor. Only then will we be in a position to judge the usefulness of that data and report back to the Council.

A variety of other types of potentially useful information could be submitted for consideration by the analysts, including information that we do not have the time, resources, or ability to collect Examples of some types of data which have been suggested for submittal are expenditures made for support services in Alaska. Our intent, unless otherwise directed by the Council, is to not accept any industry-submitted data which would create a 'new' asymmetry in our information. If we accepted such data from one sector, and used it in the analysis, we would be compelled to gather comparable information from the other sectors involved. Obviously this could get us into an untenable 'do-loop'. While much of this type of information may be extremely useful to the Council's decision process, we do not have the ability to independently verify such submittals. We suggest that the public testimony process is the appropriate vehicle for this type of information, except where we have some ability to verify the information, and where it is needed to fill an existing asymmetry in our information, such as with the employment issue.

Treatment of the 'No Action' Alternative

The *'No Action Alternative'* for the BSAI pollock allocations would result in expiration of any specific sector allocations, and will be assessed 'qualitatively' in the analyses. That is, *assume* that the underlying rationale and

issues of concern to the Council vis a vis pollock [11] TAC allocations (as articulated in the I/O1, I/O2, and now I/O3 problem statements and supporting documents and debate) remain relevant.

No empirical data exist with which to make 'quantitative' estimates of the likely impact on each of the economic, socioeconomic, ecological, and biological parameters identified below, should the Council select the 'No Action' alternative. In this case, 'No Action' would result in a return to a pre-1992 management regime for these fisheries (e.g., no sector apportionment of TAC, no CVOA). With specific reference to the BSAI, the pollock harvesting and processing sectors have undergone significant changes in, among other characteristics, capacity and capability, ownership and affiliation, markets supplied and product forms, since I/O1 was adopted. Therefore, the probable implications for sectoral performance, catch and production shares, market and price impacts, community stability, ecological and biological implications, regulatory stability, and effects on future fishery management programs and options can only be characterized in 'qualitative' terms.

On this basis, it should be possible to suggest the likely implications for the foregoing set of parameters of concern, within the context of "with" and "without" I/O3, based upon a "threshold" analysis. That is, even without the ability to 'quantitatively' estimate the economic, socioeconomic, management, and ecological/biological impacts of a recision of I/O, it may nonetheless be possible to suggest the 'probable' direction, gross magnitude, and distribution of any such impacts, within the context of current and previous Problem Statements for inshore/offshore. If these can be shown, on the basis of logical argument and reasonable assumption, to most probably exceed any expected 'benefit' from recision (or vise- versa), then the Council may judge the relative desirability of this option, when compared to the other alternatives before it.

Gulf of Alaska Alternatives

There are only two alternatives under consideration for the GOA I/O3 amendment. These are, the *'No Action'* alternative (i.e., the allocations expire), or a 'rollover' of the existing allocations (i.e., 100% of pollock and 90% of Pacific cod allocated inshore). As with the *'No Action'* alternative described for the BSAI, little or no empirical data exist with which to make quantitative estimates of impacts, should the allocations be allowed to expire. Probable implications for sectoral performance, community stability, regulatory stability, and effects on future management would be characterized in qualitative terms;

In the case of the GOA, the only alternative to "expiration" under the sunset provision of I/O2, is continuation of the *status quo* allocation (i.e., base case). The analysts do not envision a detailed, quantitative examination of the GOA status quo. Rather, it should be possible to suggest the likely implications within the context of 'with or without' the existing pollock and P.cod allocations, based upon a 'threshold' analyses, as described above for the BSAI 'No action' alternative. This should permit suggestions as to the 'probable' type, direction, magnitude, and distribution of impacts, in a general sense. If these can be shown to most probably exceed any expected 'benefit' relative to *No Action*, then the Council should be in a position to judge the relative desirability of the two competing alternatives. This is similar to the approach taken in the 1995 analysis for the GOA, and appears consistent with the Council's Problem Statement for the GOA. This approach is not meant to minimize the importance of the allocations to the GOA pollock and cod fisheries, but is a reflection of the relatively simple decision facing the Council with regard to the GOA allocations.

[11] ... and Pacific cod, in the GOA.

'Net benefit' considerations

Throughout the recent discussions regarding the I/O3 issue, we have stressed our inability to conduct a quantitative 'cost/benefit' analysis. Cost information, including fixed and variable operating cost statistics, is a crucial element of an effective net benefit analysis. Cost data for the BSAI and GOA groundfish harvesting and processing sectors are not currently available to the analysts. Therefore, it will not be possible to complete a quantitative cost/benefit examination of the I/O3 proposal, nor to derive comparative 'net benefit' conclusions about the several competing alternatives and sub-options. This fact has been recognized, and reinforced, by our SSC, though they have suggested in their December minutes that the analysts provide some discussions in the analysis related to 'net benefit considerations'. This would include, for example, discussion of consumer and producer surplus and factors which feed into those concepts, recognizing that it will not likely be possible for the analysts to 'net out' either the direction or magnitude of impacts.

For example, an assumption that offshore production continues to be disproportionately composed of product-forms which are primarily marketed in the U.S.-domestic market (e.g., deep-skin fillets), and inshore production (e.g., surimi) continues to be marketed primarily in export markets, may allow one to draw inferences about the probable *consumers' surplus* impacts of a given TAC reapportionment proposal, *ceteris paribus*. This is an obvious oversimplification, since both sectors have a variety of products and markets to consider, but is illustrative of the types of 'net benefit' considerations which the Council might take into account. Similar hypothetical characterizations could be presented with respect to potential *producers' surplus* changes, although agency policy on this topic is somewhat less clearly articulated. Because little quantitative demand and supply analysis exists for pollock products produced from BSAI catches, it is unlikely that actual 'surplus' measures can be made. Therefore, any interpretation of *probable* changes in consumers' or producers' surplus may be subject to criticism.

One must also *assume* that the operational subsector distributions will be constant. That is, for example, that reductions in TAC allocation to the offshore sector would be 'equally' distributed among operators producing the current range of output forms. If, alternatively, the entire reduction in allocation was absorbed by, say, the fillet operations, the implications would be different from the simplistic example above. It is unlikely that the analysts will have enough information about the 'relative' economic viability of any of the operational subsectors to make this judgement.

In summary, we intend for the analysis to include a more detailed discussion of 'net benefit' issues, but caution against any expectations for quantitative projections. As noted previously, we will be conducting a quantitative, gross revenue based analysis - each alternative and option will be assessed on the basis of gross revenue implications, within the limitations of data that are available. We acknowledge that changes in gross revenues cannot be regarded as indicative of overall net benefit implications, in terms of either magnitude or direction, but feel that this information will be of use to the Council in terms of distributional implications.

Treatment of sub-Alternatives

Once estimates of impacts attributable to the suite of basic apportionment alternatives have been made, the implications of those findings for the series of suboptions, included in the Council's I/O3 proposal, will be undertaken as a stand alone, primarily qualitative discussion, e.g., implications of lumping or separating true MS, fixed percent allocations of the TAC to catcher vessels delivering to C/Ps, fixed percent allocations of the TAC for "small" catcher vessels delivering onshore, and options relative to the CVOA.

While we do not have specific, quantitative measurements to address these issues, beyond what is contained in the profiles and sector distributional analyses, we do intend to specifically address each sub-alternative and option in the analysis to be reviewed in April.

U.S. Department of Transportation
United States Coast Guard

Commander
Seventeenth Coast Guard District

P.O. Box 25517
Juneau, AK 99802-5517
Staff Symbol: (mpo)
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Attachment 1

16701
JAN 20 1998

Dr. Clarence Pautzke
Executive Director
North Pacific Fishery Management Council
605 West 4th Avenue, Suite 306
Anchorage, AK 99501-2252

Dear Dr. Pautzke,

Back in October you asked me to query the Coast Guard data base regarding ownership and rebuild information for fishing vessels greater than 165 feet operating in Alaska. My staff faxed a copy of the results, Enclosure (1), to Mr. Darryl Brannan.

At the December meeting Dr. Pereyra indicated on Enclosure (2) mistakes in the information for several vessels. Although we queried our data base a second time, we got the same information as we did in our first query, indicating a potential problem with our data base. This could have occurred for several reasons:

a. Incorrect information provided to the CG by vessel owners;
b. Vessel data changes/updates not reported by owners to the CG;
c. Correct information mis-entered by CG data clerks.

The Coast Guard does not routinely verify vessel documentation information; vessel owners are required by law to provide correct information to the Coast Guard and keep it updated.

With regard to the task at hand, I recommend your staff use the information we have provided and identify the Coast Guard as the source. As your analysis document goes through the public review process, individual vessel owners can then work directly with the National Vessel Documentation Center at 1-800-799-8362 to correct and update information for their vessels. I think this is about the best we can do, and hope it meets your needs.

Sincerely,

J. V. O'SHEA
Captain, U. S. Coast Guard
By direction of the Commander

Encl: (1) Vessel List
(2) Vessel List as annotated by Dr. Pereyra

Copy: Dr. Walter Pereyra, Arctic Storm, Inc.
Ms. Kristine Norosz, Icicle Seafoods

Factory Trawlers/Trawlers Targetting Alaska Pollock

Vsl Name	CG # (COD)	ADF&G (F/V. . .)	Reg. Len (COD)	LOA (F/V. . .)	GRT (COD)	HP (F/V. . .)	75% (COD)	Yr Built (COD)	Last Rebuild (COD)
Alaska Juris	569276	54693	200.8	223	1213	3600	Y	1975	
Alaska Ocean	637856	60407	344	376	4555	6250	**N**	1981	**Abroad**
Alaska Victory	569752	61083	205.7	227	1215	5800	Y	1975	**Abroad**
Alaska Voyager	536484	51926	203.5	214	1245	4000	Y	1971	
Alaskan Rose	529154	55466	116	131	380	1300	Y	1970	
American Enterprise	594803	54836	191.7	210	1537	3000	Y	1978	
American Empress	942347	57623	280.6	306.4	2493	8254	Y	1974	**Abroad**
American Dynasty	951307	59378	240.7	272	3659	8000	Y	1974	**Abroad**
American Triumph	646737	60660	251.7	285	4294	7939	Y	1961	
American No. 1	610654	36202	143.2	160.2	560	2250	Y	1979	
Arctic Fjord	940866	57450	253.5	272	3369	6060	**N**	1974	
Arctic Storm	903511	54886	314.3	334	4068	6000	**N**	1942	**Abroad**
Bountiful	593404	34053	150.5	155	1032	*	Y	1978	
Browns Point	587440	55511	179.7	190	947	2700	Y	1977	
Christina Ann	653045	54852	177.4	204	831	5050	**N**	1982	
Constellation	640364	*	150.2	*	194	2250	Y	1981	
Elizabeth Ann	534721	54637	196.1	220	1478	3300	**N**	1971	**Abroad**
Endurance	592206	57201	239.1	277	2117	5300	**N**	1978	
Harvester Enterprise	584902	55183	170.2	188	1203	1800	Y	1977	
Highland Light	577044	56974	244	270	1533	5750	Y	1976	
Island Enterprise	610290	59503	273.8	304	2766	3950	Y	1979	
Katie Ann	518441	55301	267.4	296	1593	4497	**N**	1969	
Kodiak Enterprise	579450	59170	253.2	275	1584	5830	Y	1977	
Legacy	664882	*	117.2	132	194	1240	Y	1983	
Northern Glacier	663457	48075	175.6	201	1109	3000	Y	1983	
Northern Eagle	506694	56618	310.5	341	4437	6590	Y	1966	**Abroad**
Northern Jaeger	521069	60202	308.4	*	3732	6322	**N**	1969	
Northern Hawk	643771	60795	310.1	341	3582	8790	Y	1981	
Ocean Peace	677399	55767	199.5	*	1144	2250	**N**	1984	
Ocean Rover	552100	56987	223	*	4345	7080	**N**	1973	**Abroad**

ENCLOSURE (1)

Factory Trawlers/Trawlers Targetting Alaska Pollock

Vsl Name	CG #	ADF&G	Reg. Len	LOA	GRT	HP	75%	Yr Built	Last Rebuild
	(COD)	(F/V. . .)	(COD)	(F/V. . .)	(COD)	(F/V. . .)	(COD)	(COD)	(COD)
Pacific Explorer	942592	57629	213.7	236	1389	4000	Y	1982	
Pacific Glacier	933627	56991	253.5	276	2241	6600	Y	1974	
Pacific Navigator	592204	54859	195	*	1097	3600	Y	1978	**Abroad**
Pacific Scout	934772	57438	213.7	236	1389	4000	Y	1982	
Rebecca Ann	592205	56197	200.2	217	1166	3300	Y	1978	**Abroad**
Rebecca Irene	697637	*	115.3	140	191	1800	Y	1981	
Seafisher	575587	56964	211.4	230	1453	3000	**N**	1976	**Abroad**
Seattle Enterprise	904767	56789	247	270.1	1519	3900	Y	1973	
Starbound	944658	57621	205.8	240	1533	5000	Y	1989	
U.S. Intrepid	604439	54392	173.2	185	1027	4800	Y	1979	
Victoria Ann	592207	56196	192.5	217	1112	3360	**N**	1978	**Abroad**
Former U.S. Vessels, Now Foreign Flagged									
Claymore Sea	L7391288		244		3072	*	**N**	1974	**Abroad**
Heather Sea	L7391317		264.4	292	3200	*	**N**	1975	**Abroad**
Saga Sea	L7390416		271		4848	*	**N**	1974	**Abroad**

Legend

(COD) *Information copied from CG Certificate of Documentation
(F/V. . .) *Information copied from 4th Edition of Fishing Vessels of the United States
CG # CG official documentation number
ADF&G State number
Reg Len - Registered Length
LOA Length Overall
GRT - Gross Registered Tonnage
HP - Horsepower
75% - 75% U.S. Ownership
Yr. Built Year Built
Last Rebuild Location of last rebuild
* - Information unavailable

Factory Trawlers/Trawlers Targetting Alaska Pollock

Vsl Name	CG # (COD)	ADF&G (F/V...)	Reg. Len (COD)	LOA (F/V...)	GRT (COD)	HP (F/V...)	75% (COD)	Yr Built (COD)	Last Rebuild (COD)	
Alaska Juris	569276	54693	200.8	223	1213	3600	Y	1975		
Alaska Ocean	637856	60407	344	376	4555	6250	N	1981	Abroad	
Alaska Victory	589752	61083	205.7	227	1215	5800	Y	1975	Abroad	
Alaska Voyager	536484	51926	203.5	214	1245	4000	Y	1971		
Alaskan Rose	529154	55466	116	131	380	1300	Y	1970		
American Enterprise	594603	54836	191.7	210	1537	3000	Y	1978		
American Empress	942347	57623	280.6	306.4	2493	8254	Y	1974	Abroad	
American Dynasty	951307	59378	240.7	272	3659	8000	Y	1974	Abroad	
American Triumph	646737	60660	251.7	285	4294	7939	Y	1961		
American No. 1	610654	36202	143.2	160.2	560	2250	Y	1979		
Arctic Fjord	940866	57450	253.6	272	3369	6060	(N) Y	1974	→ Abroad	NOTE MISTAKES
Arctic Storm	903511	54868	314.3	334	4068	6000	N	1942		
Bountiful	593404	34053	150.5	155	1032	*	Y	1978		
Browns Point	587440	55511	179.7	190	947	2700	Y	1977		
Christina Ann	653046	54852	177.4	204	831	5050	N	1982		
Constellation	640364	*	150.2	*	194	2250	Y	1981		
Elizabeth Ann	534721	54637	198.1	220	1478	3300	N	1971	Abroad	
Endurance	592208	57201	239.1	277	2117	5300	N	1978		
Harvester Enterprise	584902	55183	170.2	188	1203	1800	Y	1977		
Highland Light	577044	58974	244	270	1533	5750	Y	1976		
Island Enterprise	610290	59503	273.8	304	2766	3950	Y	1979		
Katie Ann	518441	55301	267.4	286	1593	4497	N	1969		
Kodiak Enterprise	579450	59170	253.2	275	1584	5830	Y	1977		
Legacy	664882	*	117.2	132	194	1240	Y	1983		
Northern Glacier	663457	48075	175.6	201	1109	3000	Y	1983		
Northern Eagle	506694	56618	310.5	341	4437	6590	Y ?	1966	Abroad	
Northern Jaeger	521069	60202	308.4	*	3732	6322	N	1969	ABROAD	NOTE
Northern Hawk	643771	60795	310.1	341	3582	8780	Y ?	1981	ABROAD	
Ocean Peace	677399	55767	199.5	*	1144	2250	N	1984		
Ocean Rover	552100	56987	223	*	4345	7080	N	1973	Abroad	

ENCLOSURE 2

Factory Trawlers/Trawlers Targetting Alaska Pollock

Vsl Name	CG # (COD)	ADF&G (F/V...)	Reg. Len (COD)	LOA (F/V...)	GRT (COD)	HP (F/V...)	75% (COD)	Yr Built (COD)	Last Rebuild (COD)
Pacific Explorer	942592	57629	213.7	236	1389	4000	Y	1982	
Pacific Glacier	933627	56991	253.5	276	2241	6600	Y	1974	ABROAD
Pacific Navigator	592204	54859	195	*	1097	3600	Y	1978	Abroad
Pacific Scout	934772	57438	213.7	236	1389	4000	Y	1982	
Rebecca Ann	592205	56197	200.2	217	1166	3300	Y	1978	Abroad
Rebecca Irene	697637	*	115.3	140	191	1800	Y	1981	
Seafisher	575587	56964	211.4	230	1463	3000	N	1976	Abroad
Seattle Enterprise	904767	56789	247	270.1	1519	3900	Y	1973	
Starbound	944658	57621	205.8	240	1533	5000	Y	1989	
U.S. Intrepid	604439	54392	173.2	185	1027	4800	Y	1979	
Victoria Ann	592207	56196	192.5	217	1112	3360	N	1978	Abroad
Former U.S. Vessels, Now Foreign Flagged									
Claymore Sea	L7391288		244		3072	*	N	1974	Abroad
Heather Sea	L7391317		264.4	292	3200	*	N	1975	Abroad
Saga Sea	L7390416		271		4848	*	N	1974	Abroad

NOTE

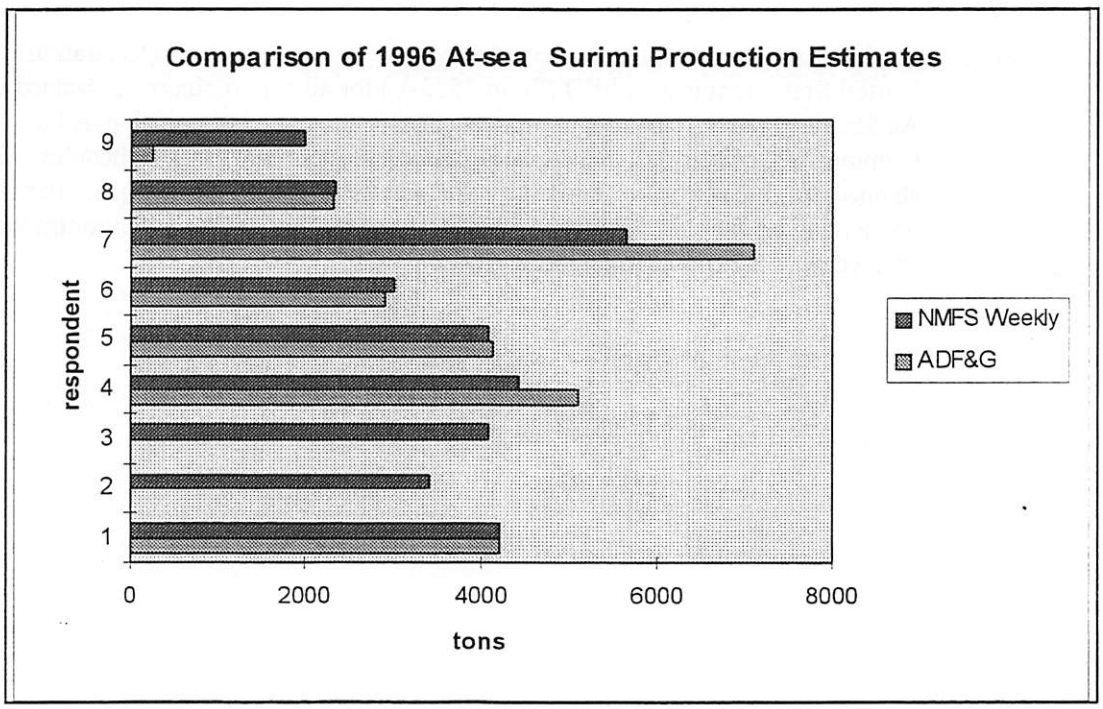
Legend

(COD) *Information copied from CG Certificate of Documentation
(F/V...) *Information copied from 4th Edition of Fishing Vessels of the United States
CG # CG official documentation number
ADF&G State number
Reg Len - Registered Length
LOA Length Overall
GRT - Gross Registered Tonnage
HP - Horsepower
75% - 75% U.S. Ownership
Yr. Built Year Built
Last Rebuild Location of last rebuild
* - Information unavailable

Baseline 1996 Wholesale Price Issues:

1) At-Sea Responses to the 1996 ADF&G Annual Operators Report

The 1996 at-sea wholesale prices collected under the Alaska Department's Fish and Game's Alaska Commercial Annual Operator's Report will need to be more rigorously reviewed for their representativeness of the industry. According to the NMFS Weekly Production Reports, 21 at-sea surimi processors operated in 1996 producing approximately 80,000 tons of surimi. Reports were received on 9 of these processors whose combined production was about 26,000 tons. These responses were compared to their corresponding NMFS Weekly Production Report data. In only four instances were the production estimates similar. In some instances, the ADF&G estimates were significantly higher; and, in other instances, significantly lower. Respondents 2 and 3 reported less than 40 tons each to ADF&G, while respondents 4 and 8 reported significantly higher amounts of production to ADF&G than to NMFS. Conversation with a representative of one at-sea company, indicates that some companies may not be reporting to ADF&G their total annual production, but only that amount of production associated with the state fish tax levied on vessels operating/off loading in state territorial waters . Reasons why companies would report higher production to ADF&G than to NMFS are unknown and research needs to done to verify that the data were properly coded or if the ADF&G, NMFS, and Council developed computer programs were properly done. Price estimates based on four useful observations are likely to be mis-representations of the actual 1996 at-sea surimi prices, particularly as these estimates are associated with only two parent companies.



2) AreThere Other Sources of Data?

The analysts are unaware of other sources of data that depict prices by sector in terms of price and quantity. U.S. export and foreign import data do not distinguish between offshore and onshore product. Japanese market data on offshore top-grade surimi prices are available but the onshore surimi prices are for land based operations in Japan which are not comparable to U.S. shoreplants.

3) Alternative Approaches to Developing 1996 Price Estimates

a) With the aid of a statistician, undertake a rigorous analysis of the 1990-1996 wholesale price data and develop tests on the representativeness of the 1996 at-sea price data. (See Statistical Appendix below.)

b) Assuming that the 1996 inshore, 1994 inshore, and 1994 offshore data are reliable, project 1996 at-sea prices by adjusting the 1996 inshore average prices according to the percentage differences between the sectors in 1994. (1995 ADF&G at-sea data appear to suffer from the same problems as the 1996 data.)

c) Undertake an independent-accountant audited collection of price data from the industry.

d) Undertake a NMFS/Council/ADF&G special cooperative survey.

e) Explore the obtaining of from the industry their "Shippers Export Declaration" reports. The United States requires an SED (Form 7525-V) for all export shipments valued over $2,500. An SED is to contain: the proper product classification number (which may be from either the Commerce Department's Schedule B or the Harmonized Tariff Schedules; the quantities shipped; the shipment's Free-on-Board value, and the shipment's destination. The U.S. Customs Service and the Bureau of Export Administration used the SEDs to monitor trade flows and to enforcement of export and import regulations.

Statistical Appendix.

The Annual Operators Data is undergoing the following analysis.

Annual price and production data by processing plant are being organized by product and sector. The average prices are then screened for outliers using StatPad by Skyline Technologies Inc.--a statistical program that adds statistical capabilities to Microsoft Excel. This software is used to compute summaries for each sector's average prices: count, average or mean, median, smallest, largest, quartiles, and standard deviation. Histograms are drawn to explore the data, showing the shape of the distribution, typical values, variability and outliers. Box Plot analysis is also used to explore the data. These plots show a 5-number summary (smallest, lower quartile, median, upper quartile, and largest) with outliers (noted by small black boxes) indicated. A annual weighted average price is computed where each company's price and production are multiplied to estimate total revenue. The total revenue and total production of each company is then aggregated into sector totals. Sector total revenue is divided by sector total production to produce the weighted average price. If outliers are indicated, then a second weighted average price is computed by eliminating the outlier companies from the computation.

The outliers are data points that lie outside of the following limits:

Upper quartile + 1.5(Upper quartile-Lower quartile)
Lower quartile - 1.5 (Upper quartile-Lower quartile)

"Outliers are extreme measurements that stand out from the rest of the sample and may be faulty--incorrectly recorded observations or members of a different population from the rest of the sample. At the least, they are very unusual measurements from the same population." (Statistics for Business and Economics (Sixth Edition), James T. McClave and P.George Benson, Prentice Hall, New Jersey, 1994, page 95).

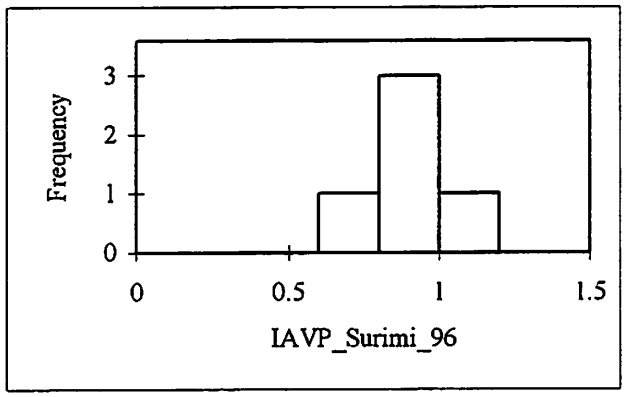
It is unknown if the outliers indicated are truely outliers therefore weighted averages are computed with and without the outliers.

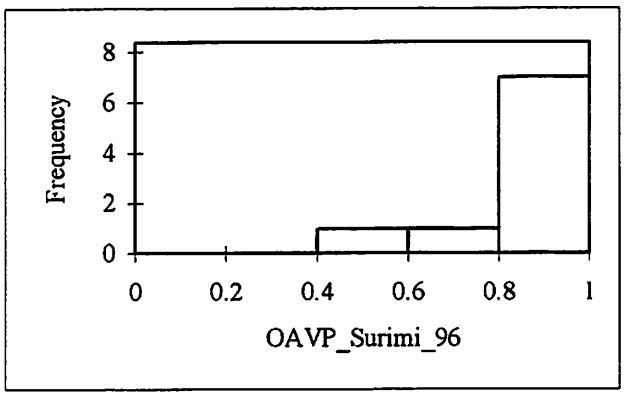
This table shows the amount of production for which price information was available from the ADF&G Annual Commercial Operator's Annual Report, and the amount of product reported in the NMFS Weekly Production Reports. The ratio columns show that after 1993 the At-sea reporting of production in the NMFS data is much lower than that reported in the Annual Operator's Report.

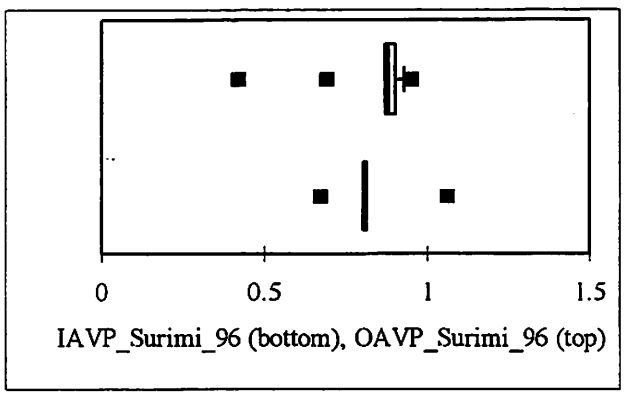
Reported Alaska Surimi Production in 1,000 Metric Tons

Year	ADF&G Annual Operator's Reports		NMFS Weekly Production Reports		ADF&G / NMFS %	
	At-sea	Shorebased	At-sea	Shorebased	At-sea	Shorebased
1990	94	38	133	40	71%	95%
1991	87	45	89	51	98%	88%
1992	94	65	92	72	102%	90%
1993	70	71	75	75	93%	94%
1994	66	79	93	89	71%	89%
1995	35	84	87	91	40%	92%
1996	26	74	80	76	33%	97%

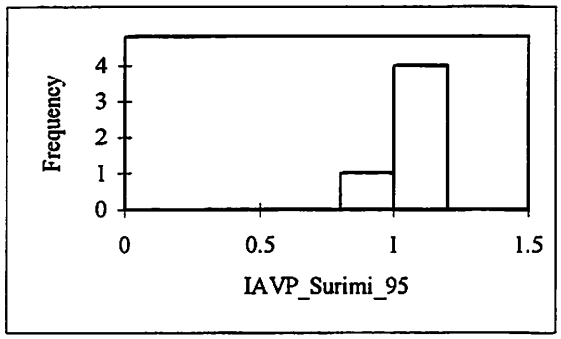
IAVP_Surimi_96	OAVP_Surimi_96	Summaries
5	9	Count n
0.828	0.822222222	Mean or average
0.142021	0.167912014	Standard deviation (variability of individuals)
0.67	0.42	Smallest
0.8	0.87	Lower quartile
0.8	0.88	Median
0.81	0.9	Upper quartile
1.06	0.95	Largest
$0.82	$0.86	Unadjusted Weighted Average
$0.80	$0.90	Weighted Average Adjusted for Outliers

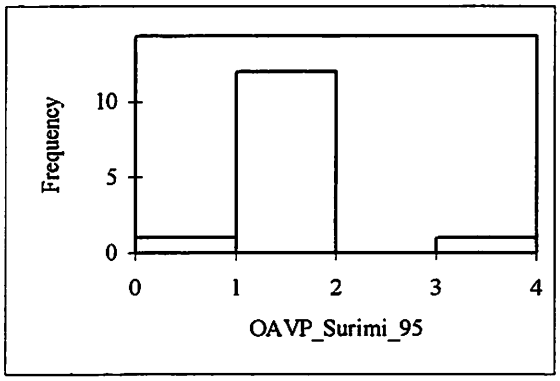


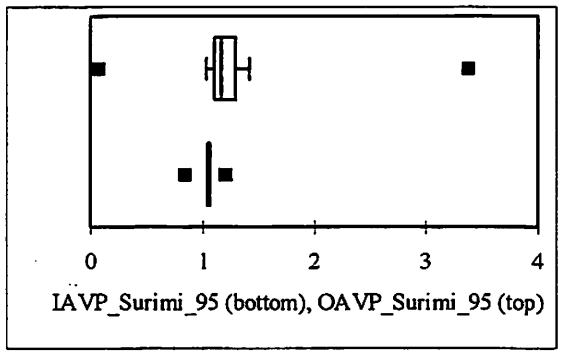




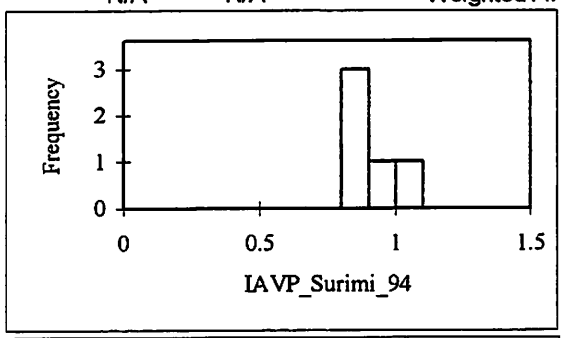
IAVP_Surimi_95	OAVP_Surimi_95	Summaries
5	14	Count n
1.034	1.273571429	Mean or average
0.132212	0.683347047	Standard deviation (variability of individuals)
0.83	0.07	Smallest
1.04	1.1	Lower quartile
1.04	1.165	Median
1.06	1.29	Upper quartile
1.2	3.37	Largest
$1.06	$1.17	Unadjusted Weighted Average
$1.05	$1.17	Weighted Average Adjusted for Outliers

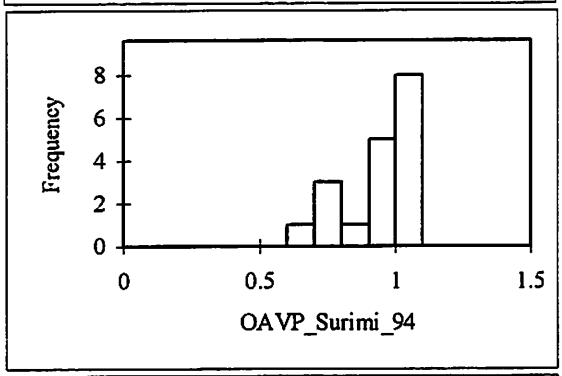


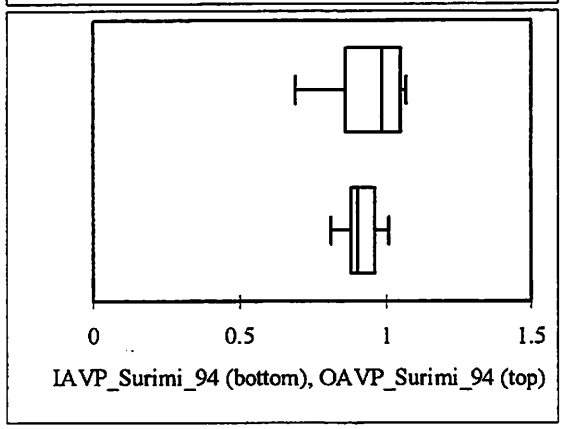




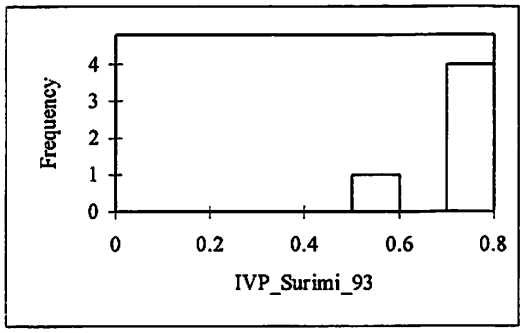
IAVP_Surimi_94	OAVP_Surimi_94	Summaries
5	18	Count n
0.912	0.942222222	Mean or average
0.076616	0.129458399	Standard deviation (variability of individuals)
0.81	0.69	Smallest
0.88	0.86	Lower quartile
0.9	0.985	Median
0.96	1.05	Upper quartile
1.01	1.07	Largest
$0.90	$0.94	Unadjusted Weighted Average
N/A	N/A	Weighted Average Adjusted for Outliers

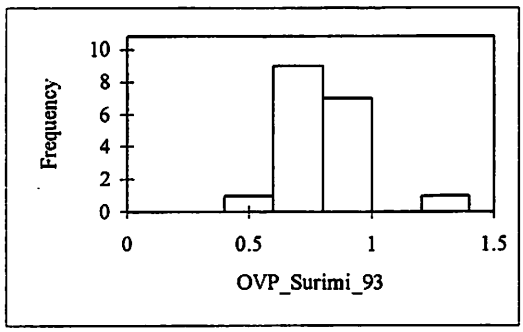


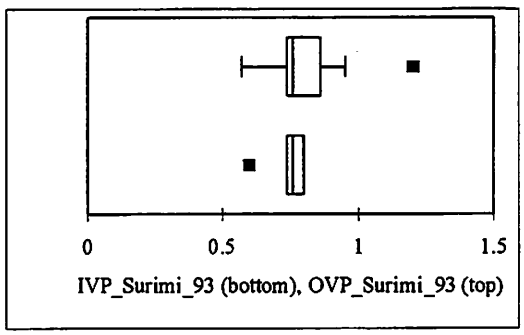




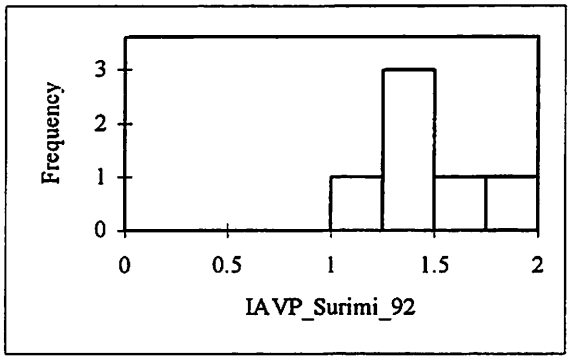
IVP_Surimi_93	OVP_Surimi_93	Summaries
5	18	Count n
0.74	0.788888889	Mean or average
0.082462	0.150054456	Standard deviation (variability of individuals)
0.6	0.57	Smallest
0.74	0.74	Lower quartile
0.76	0.76	Median
0.8	0.86	Upper quartile
0.8	1.2	Largest
$0.70	$0.80	Unadjusted Weighted Average
$0.77	$0.78	Weighted Average Adjusted for Outliers

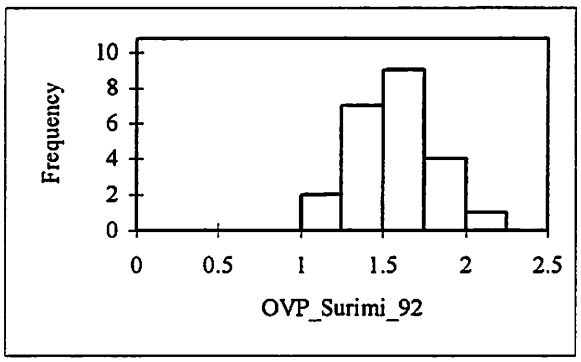


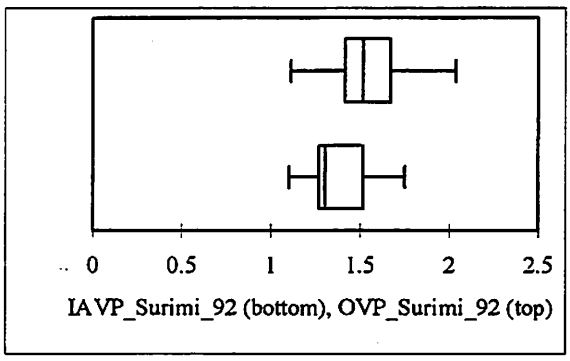




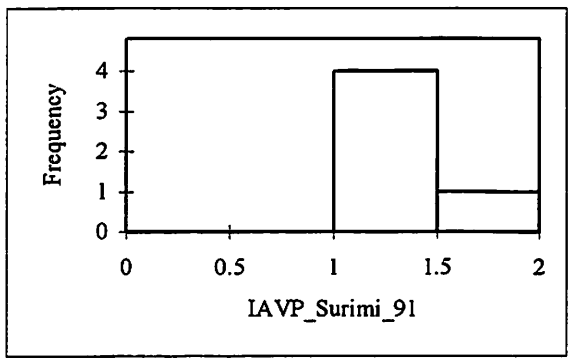
IAVP_Surimi_92	OVP_Surimi_92	Summaries
6	23	Count n
1.375	1.559130435	Mean or average
0.228276	0.234751572	Standard deviation (variability of individuals)
1.1	1.11	Smallest
1.27	1.42	Lower quartile
1.305	1.52	Median
1.52	1.675	Upper quartile
1.75	2.04	Largest
$1.43	$1.58	Unadjusted Weighted Average
N/A	N/A	Weighted Average Adjusted for Outliers

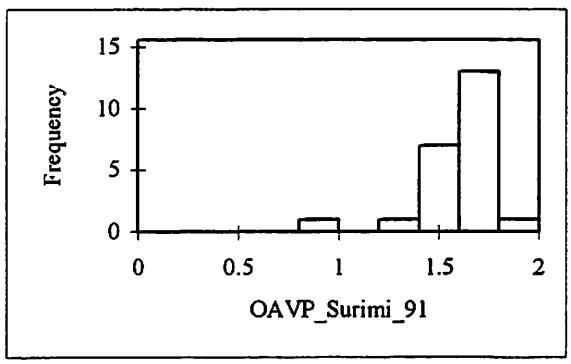


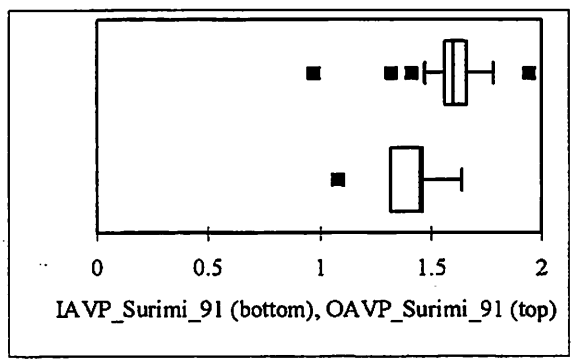




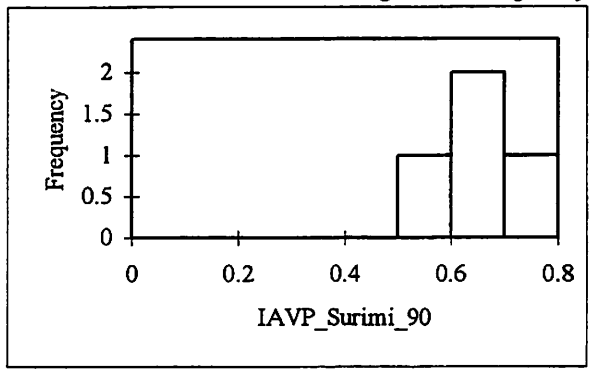
IAVP_Surimi_91	OAVP_Surimi_91	Summaries
5	23	Count n
1.39	1.579130435	Mean or average
0.207364	0.186008627	Standard deviation (variability of individuals)
1.08	0.97	Smallest
1.32	1.56	Lower quartile
1.45	1.6	Median
1.46	1.66	Upper quartile
1.64	1.94	Largest
$1.25	$1.57	Unadjusted Weighted Average
$1.45	$1.60	Weighted Average Adjusted for Outliers

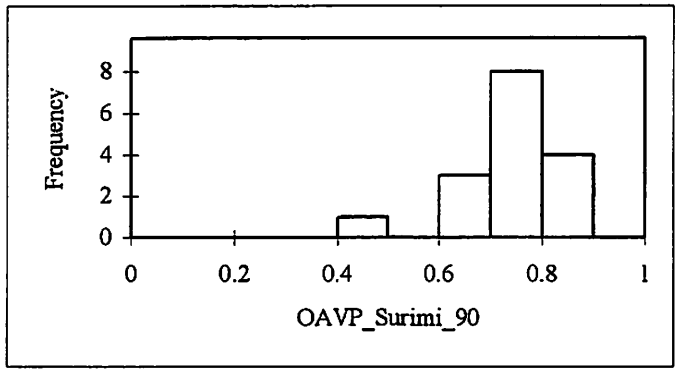


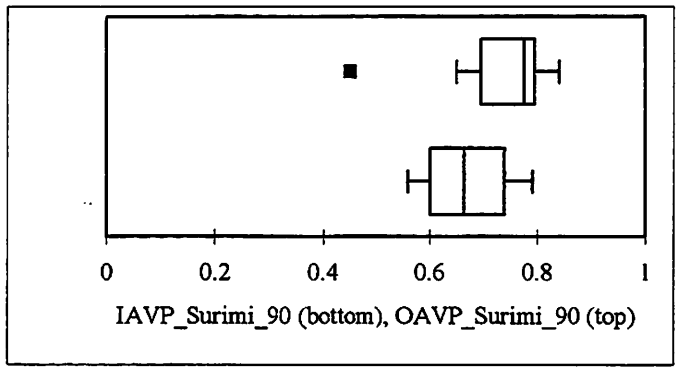




IAVP_Surimi_90	OAVP_Surimi_90	Summaries
4	16	Count n
$0.67	$0.74	Mean or average
0.10	0.10	Standard deviation (variability of individuals)
0.56	0.45	Smallest
0.60	0.70	Lower quartile
0.67	0.78	Median
0.74	0.80	Upper quartile
0.79	0.84	Largest
0.05	0.02	Standard error (variability of sample average, if random sample)
$0.64	$0.73	Unadjusted Weighted Average
N/A	$0.74	Weighted Average Adjusted for Outliers







Projections of Pollock Catches and Estimations of B-Season Harvest Rates Inside and Outside of the Catcher Vessel Operational Area (CVOA) Along with Trends in Pollock Catches in Steller Sea Lion Critical Habitat in the Bering Sea/Aleutian Islands Region

By
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NMFS, Alaska Fishery Science Center, Seattle

1. Projections of A- and B-season pollock catches in the CVOA under each sector allocation and CVOA alternative

Pollock catches inside and outside of the CVOA were estimated using the following criteria and conditions:

- Eastern Bering Sea pollock TAC=1.1 million mt;
- A:B season split is 45%:55%;
- fishery sectors (offshore, motherships, inshore) are allocated percentages of the pollock TAC according to the Sector Allocation Alternatives 1-4 and Status Quo:

	Sector Allocation Alternatives				
Sector	1	2	Status Quo	3	4
Offshore	70	60	55	50	40
Motherships	5	10	10	10	15
Inshore	25	30	35	40	45

- fishery sectors are excluded from fishing in the CVOA by season according to the CVOA Alternatives 1-3 and Status Quo (SQ) (Y=can fish in the CVOA; N=cannot fish in the CVOA). Note that in the A-season, the SQ and Alternative 3 are the same, and in the B-season, the SQ and Alternative 1 are the same.

	A-Season CVOA Alternatives				B-Season CVOA Alternatives			
Sector	SQ	1	2	3	SQ	1	2	3
Offshore	Y	N	N	Y	N	N	N	Y
Motherships	Y	Y	N	Y	Y	Y	N	Y
Inshore	Y	Y	Y	Y	Y	Y	Y	Y

- two types of A-season pollock fishery distribution patterns, one in which each sector caught the vast majority of its allocation within the CVOA (the 1994 pattern: cold year), and one in which each sector caught significant amounts of pollock outside of the CVOA (the 1996 pattern: warm year):

Percent of A-Season Pollock Caught Inside and Outside of the CVOA

	1994		1996	
Sector	Inside	Outside	Inside	Outside
Offshore	95.5%	4.5%	46.7%	53.3%
Motherships	99.5%	0.5%	65.5%	34.5%
Inshore	99.4%	0.6%	74.1%	25.9%

- pollock fishery distribution patterns observed in the B-season of 1996 were used to estimate B-season catch distributions under each CVOA alternative, except for the offshore sector under CVOA alternative 3 (no CVOA). In this single instance, data from the most recent year (1991) during which the offshore sector was not prohibited from fishing in the CVOA were used (NA=not applicable):

Percent of B-Season Pollock Caught Inside and Outside of the CVOA

	1991		1996	
Sector	Inside	Outside	Inside	Outside
Offshore	4.0%	96.0%	0%	100%
Motherships	NA	NA	99.6%	0.4%
Inshore	NA	NA	97.1%	2.9%

- if a sector was prohibited from fishing inside the CVOA, it was assumed that it could catch its entire allocation outside the CVOA. If a sector was allowed to fish in the CVOA, it was assumed that it could have the same catch distribution inside and outside of the CVOA as it had in the A-seasons of 1994 and 1996, and the B-seasons of 1996 and 1991 (offshore sector, CVOA alternative 3 only).

Results

Table 1 contains the projected A- and B-season pollock catches (in mt) inside and outside of the CVOA for each sector allocation and CVOA alternative combination. Figure 1 shows the percent change in A-season, B-season, and annual pollock catches within the CVOA under each sector allocation and CVOA alternative combination relative to the base years of 1994 and 1996. Examination of these data yields the following conclusions:

- Increased pollock allocations to the offshore sector leads to less pollock catch in the CVOA relative to the status quo;
- During the A-season, excluding the offshore sectors (CVOA alternative 1), and offshore and mothership sectors (CVOA alternative 2) from the CVOA yields *reductions* in A-season CVOA pollock catch ranging from 26-75%, depending on the sector allocation alternative and A-season distribution model;
- During the A-season, no combination of allocation alternative, CVOA alternative, or A-season fishery distribution model leads to *increases* in A-season CVOA pollock catch greater than 6%;
- *Reductions* in B-season CVOA pollock catch ranging from 6-45% are predicted for the two sector allocation alternatives that increase the pollock allocation to the offshore sector (alternatives 1 and 2), regardless of the CVOA alternative chosen;
- *Increases* in B-season CVOA pollock catch ranging from 11-37% are predicted for the two sector allocation alternatives that increase the pollock allocation to the inshore sector (alternatives 3 and 4), but only for the following CVOA alternatives: status quo, no CVOA, and offshore excluded (SQ, alternatives 1 and 3). If offshore and mothership sectors are excluded from the CVOA during the B-

season (CVOA alternative 2), B-season pollock catches are expected to decline slightly (-12% and -1%) under sector allocation alternatives 3 and 4, respectively. If the status quo allocation alternative is chosen, only CVOA alternative 2 (-23%) leads to any change in CVOA B-season pollock catches;

- *Reductions* in annual CVOA pollock catches ranging from 13-64% are predicted for every combination (except one) of each sector allocation alternative and A-season distribution model with CVOA alternatives 1 and 2. If the status quo CVOA alternative or the no CVOA alternative are chosen, then predicted changes in annual pollock catches in the CVOA are directly related to the changes in the allocation to the offshore sector: if more pollock is allocated to the offshore sector (allocation alternatives 1 and 2), then annual pollock catches in the CVOA are predicted to decline; if more pollock is allocated to the inshore sector (allocation alternatives 3 and 4), then annual pollock catches in the CVOA are predicted to increase.

2. Estimations of B-season Pollock Harvest Rates by Area, 1991-97

A spatial analysis of B-season pollock harvest rates was conducted by estimating pollock abundances and catches in three areas and four years. The three areas chosen were: (1) the CVOA, (2) east of 170°W outside of the CVOA, and (3) west of 170°W (Figure 2). The years 1991, 1994, 1996, and 1997 were chosen because combined bottom trawl-hydroacoustic surveys of the pollock population were conducted in the summers of each of these years. The following method was used to calculate areal harvest rates (shown in Figure 3):

- The distribution of survey estimates of age 3+ pollock biomass (30+ cm in length) in each area and year was used to apportion the stock assessment model (Wespestad et al. 1997) estimate of total eastern Bering Sea age 3+ biomass by area and year. This yielded estimates of age 3+ pollock biomass by area for each of the 4 years.
- Observer estimates of B-season pollock catch distribution by sector (offshore, mothership, and inshore), area, and year were used to apportion the blend estimates of B-season pollock catch by sector and year to each area. This yielded estimates of B-season pollock catch (almost entirely composed of pollock age 3 years and older) by area for each of the 4 years.
- Harvest rates were calculating using the ratio of catch to biomass by area.

Harvest rates of age 3+ pollock have been higher in the CVOA than in either of the other two areas analyzed in the eastern Bering Sea (Figure 3). For each of the four years, harvest rates in the CVOA ranged from a low of 15% in 1994 to 47% in 1997, while in the other two areas, only one of the eight annual harvest rate estimates was greater than 10% and three were less than 5%. Furthermore, data suggest that harvest rates within the CVOA increased in 1996 and 1997 (when they were 31% and 46%, respectively) relative to 1991 and 1994 (when they were 26% and 15%, respectively). Total eastern Bering Sea survey/model age 3+ pollock biomass declined 38% from 1994 to 1997, but this decline was not evenly dispersed among each of the three areas. The decline was most acute in the CVOA, where pollock biomass declined 81% from 1994 to 1997, while in the other areas east and west of 170°, the decline was only 30% and 26%, respectively.

3. Trends in Pollock Catches in Critical Habitat for the Steller sea lion

The western stock of Steller sea lions, located west of Cape Suckling (147°W) including the Bering Sea and Aleutian Islands, was recently (1997) reclassified as endangered under the Endangered Species Act. Much of the CVOA is designated as Steller sea lion critical habitat or is closed to trawlers in an effort to spatially segregate trawl fisheries from sea lions (Figure 4). Trawl exclusion zones that overlap with the CVOA surround sea lion rookeries on the following islands (from east to west in Figure 4):

Trawl Exclusion Zones Around Steller sea lion rookeries that overlap with the CVOA

Rookery Island	*10 nm Annual Trawl Exclusion Zone*	*20 nm A-Season Trawl Exclusion Zone*
Sea Lion Rock	X	X
Ugamak Island	X	X
Akun Island	X	X
Akutan Island	X	X
Bogoslof Island	X	

The cause of the decline in the population of the western stock of Steller sea lions is not known. While there are a large number of possible causes including disease and predation, reduced food availability resulting from climate change and/or fisheries appears to be the most likely. Despite efforts to reduce interactions between groundfish fisheries and Steller sea lions, the population continues to decline and pollock removals from designated critical habitat in the Bering Sea/Aleutian Islands (BSAI) increased 45% between 1991 and 1995 (Figure 5; Fritz et al.1995; Fritz and Ferrero, in press). Pollock harvests from critical habitat in the BSAI come chiefly from the southeast Bering Sea foraging area which extends from 164°-170°W north of the Aleutian Islands and overlaps considerably with the CVOA (Figure 4). In 1996, pollock harvests from critical habitat declined to 1991 levels primarily because of the increased use of areas outside of the CVOA during the A-season.

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Wespestad, V. G., J. N. Ianelli, L. Fritz, T. Honkalehto, N. Williamson, and G. Walters. 1997. Bering Sea-Aleutian Islands walleye pollock assessment for 1998. *In* Stock Assessment and Fishery Evaluation Report for the Groundfish Resources of the Bering Sea/Aleutian Islands Regions as Projected for 1998. North Pacific Fisheries Management Council, P.O. Box 103136, Anchorage, AK.

Table 1. Estimated pollock catches inside and outside of the Catcher Vessel Operational Area (CVOA) under each sector allocation and CVOA alternative. Pollock TAC is assumed to be 1.1 million mt and split 45%:55% between A:B seasons.

	CVOA Alternative							
	Status Quo		No Offshore		No Offshore, No MS		No CVOA	
	Inside CVOA	Outside CVOA	Inside CVOA	Outside CVOA	Inside CVOA	Outside CVOA	Inside CVOA	Outside CVOA
Sector Allocation Alternative 1: 70% Onshore, 5% Motherships, 25% Onshore								
1. A-season - 1994 Distribution by Sector								
Offshore	334,368	15,632	-	350,000	-	350,000	334,368	15,632
Motherships	24,881	119	24,881	119	-	25,000	24,881	119
Onshore	124,215	785	124,215	785	124,215	785	124,215	785
Total	483,464	16,536	149,097	350,903	124,215	375,785	483,464	16,536
2. A-season - 1996 Distribution by Sector								
Offshore	163,567	186,433	-	350,000	-	350,000	163,567	186,433
Motherships	16,385	8,615	16,385	8,615	-	25,000	16,385	8,615
Onshore	92,618	32,382	92,618	32,382	92,618	32,382	92,618	32,382
Total	272,571	227,429	109,004	390,996	92,618	407,382	272,571	227,429
3. B-Season - 1996 Distribution by Sector (1991 used for No CVOA, Offshore)								
Offshore	-	420,000	-	420,000	-	420,000	16,999	403,001
Motherships	29,891	109	29,891	109	-	30,000	29,891	109
Onshore	145,637	4,363	145,637	4,363	145,637	4,363	145,637	4,363
Total	175,529	424,471	175,529	424,471	145,637	454,363	192,527	407,473
4. Annual								
with 1994 A	658,993	441,007	324,625	775,375	269,853	830,147	675,992	424,008
with 1996 A	448,099	651,901	284,532	815,468	238,256	861,744	465,098	634,902

Table 1. Estimated pollock catches inside and outside of the Catcher Vessel Operational Area (CVOA) under each sector allocation and CVOA alternative. Pollock TAC is assumed to be 1.1 million mt and split 45%:55% between A:B seasons.

	CVOA Alternative							
	Status Quo		No Offshore		No Offshore, No MS		No CVOA	
	Inside CVOA	Outside CVOA	Inside CVOA	Outside CVOA	Inside CVOA	Outside CVOA	Inside CVOA	Outside CVOA
Sector Allocation Alternative 2: 60% Onshore, 10% Motherships, 30% Onshore								
1. A-season - 1994 Distribution by Sector								
Offshore	286,601	13,399	-	300,000	-	300,000	286,601	13,399
Motherships	49,763	237	49,763	237	-	50,000	49,763	237
Onshore	149,058	942	149,058	942	149,058	942	149,058	942
Total	485,422	14,578	198,821	301,179	149,058	350,942	485,422	14,578
2. A-season - 1996 Distribution by Sector								
Offshore	140,200	159,800	-	300,000	-	300,000	140,200	159,800
Motherships	32,771	17,229	32,771	17,229	-	50,000	32,771	17,229
Onshore	111,142	38,858	111,142	38,858	111,142	38,858	111,142	38,858
Total	284,113	215,887	143,913	356,087	111,142	388,858	284,113	215,887
3. B-Season - 1996 Distribution by Sector (1991 used for No CVOA, Offshore)								
Offshore	-	360,000	-	360,000	-	360,000	14,570	345,430
Motherships	59,783	217	59,783	217	-	60,000	59,783	217
Onshore	174,765	5,235	174,765	5,235	174,765	5,235	174,765	5,235
Total	234,548	365,452	234,548	365,452	174,765	425,235	249,118	350,882
4. Annual								
with 1994 A	719,969	380,031	433,368	666,632	323,823	776,177	734,540	365,460
with 1996 A	518,660	581,340	378,460	721,540	285,907	814,093	533,231	566,769

Table 1. Estimated pollock catches inside and outside of the Catcher Vessel Operational Area (CVOA) under each sector allocation and CVOA alternative. Pollock TAC is assumed to be 1.1 million mt and split 45%:55% between A:B seasons.

	CVOA Alternative							
	Status Quo		No Offshore		No Offshore, No MS		No CVOA	
	Inside CVOA	Outside CVOA	Inside CVOA	Outside CVOA	Inside CVOA	Outside CVOA	Inside CVOA	Outside CVOA
Status Quo Sector Allocation Alternative: 55% Onshore, 10% Motherships, 35% Onshore								
1. A-season - 1994 Distribution by Sector								
Offshore	262,717	12,283	-	275,000	-	275,000	262,717	12,283
Motherships	49,763	237	49,763	237	-	50,000	49,763	237
Onshore	173,901	1,099	173,901	1,099	173,901	1,099	173,901	1,099
Total	486,381	13,619	223,664	276,336	173,901	326,099	486,381	13,619
2. A-season - 1996 Distribution by Sector								
Offshore	128,517	146,483	-	275,000	-	275,000	128,517	146,483
Motherships	32,771	17,229	32,771	17,229	-	50,000	32,771	17,229
Onshore	129,665	45,335	129,665	45,335	129,665	45,335	129,665	45,335
Total	290,953	209,047	162,436	337,564	129,665	370,335	290,953	209,047
3. B-Season - 1996 Distribution by Sector (1991 used for No CVOA, Offshore)								
Offshore	-	330,000	-	330,000	-	330,000	13,356	316,644
Motherships	59,783	217	59,783	217	-	60,000	59,783	217
Onshore	203,892	6,108	203,892	6,108	203,892	6,108	203,892	6,108
Total	263,675	336,325	263,675	336,325	203,892	396,108	277,031	322,969
4. Annual								
with 1994 A	750,056	349,944	487,339	612,661	377,794	722,206	763,412	336,588
with 1996 A	554,628	545,372	426,111	673,889	333,558	766,442	567,984	532,016

Table 1. Estimated pollock catches inside and outside of the Catcher Vessel Operational Area (CVOA) under each sector allocation and CVOA alternative. Pollock TAC is assumed to be 1.1 million mt and split 45%:55% between A:B seasons.

	CVOA Alternative							
	Status Quo		No Offshore		No Offshore, No MS		No CVOA	
	Inside CVOA	Outside CVOA	Inside CVOA	Outside CVOA	Inside CVOA	Outside CVOA	Inside CVOA	Outside CVOA
Sector Allocation Alternative 3: 50% Onshore, 10% Motherships, 40% Onshore								
1. A-season - 1994 Distribution by Sector								
Offshore	238,834	11,166	-	250,000	-	250,000	238,834	11,166
Motherships	49,763	237	49,763	237	-	50,000	49,763	237
Onshore	198,744	1,256	198,744	1,256	198,744	1,256	198,744	1,256
Total	487,341	12,659	248,507	251,493	198,744	301,256	487,341	12,659
2. A-season - 1996 Distribution by Sector								
Offshore	116,834	133,166	-	250,000	-	250,000	116,834	133,166
Motherships	32,771	17,229	32,771	17,229	-	50,000	32,771	17,229
Onshore	148,189	51,811	148,189	51,811	148,189	51,811	148,189	51,811
Total	297,793	202,207	180,960	319,040	148,189	351,811	297,793	202,207
3. B-Season - 1996 Distribution by Sector (1991 used for No CVOA, Offshore)								
Offshore	-	300,000	-	300,000	-	300,000	12,142	287,858
Motherships	59,783	217	59,783	217	-	60,000	59,783	217
Onshore	233,020	6,980	233,020	6,980	233,020	6,980	233,020	6,980
Total	292,802	307,198	292,802	307,198	233,020	366,980	304,944	295,056
4. Annual								
with 1994 A	780,144	319,856	541,309	558,691	431,764	668,236	792,285	307,715
with 1996 A	590,596	509,404	473,762	626,238	381,209	718,791	602,738	497,262

Table 1. Estimated pollock catches inside and outside of the Catcher Vessel Operational Area (CVOA) under each sector allocation and CVOA alternative. Pollock TAC is assumed to be 1.1 million mt and split 45%:55% between A:B seasons.

	CVOA Alternative							
	Status Quo		No Offshore		No Offshore, No MS		No CVOA	
	Inside CVOA	Outside CVOA	Inside CVOA	Outside CVOA	Inside CVOA	Outside CVOA	Inside CVOA	Outside CVOA
Sector Allocation Alternative 4: 40% Onshore, 15% Motherships, 45% Onshore								
1. A-season - 1994 Distribution by Sector								
Offshore	191,067	8,933	-	200,000	-	200,000	191,067	8,933
Motherships	74,644	356	74,644	356	-	75,000	74,644	356
Onshore	223,588	1,412	223,588	1,412	223,588	1,412	223,588	1,412
Total	489,299	10,701	298,231	201,769	223,588	276,412	489,299	10,701
2. A-season - 1996 Distribution by Sector								
Offshore	93,467	106,533	-	200,000	-	200,000	93,467	106,533
Motherships	49,156	25,844	49,156	25,844	-	75,000	49,156	25,844
Onshore	166,713	58,287	166,713	58,287	166,713	58,287	166,713	58,287
Total	309,336	190,664	215,869	284,131	166,713	333,287	309,336	190,664
3. B-Season - 1996 Distribution by Sector (1991 used for No CVOA, Offshore)								
Offshore	-	240,000	-	240,000	-	240,000	9,713	230,287
Motherships	89,674	326	89,674	326	-	90,000	89,674	326
Onshore	262,147	7,853	262,147	7,853	262,147	7,853	262,147	7,853
Total	351,821	248,179	351,821	248,179	262,147	337,853	361,535	238,465
4. Annual								
with 1994 A	841,120	258,880	650,053	449,947	485,735	614,265	850,833	249,167
with 1996 A	661,157	438,843	567,690	532,310	428,860	671,140	670,870	429,130

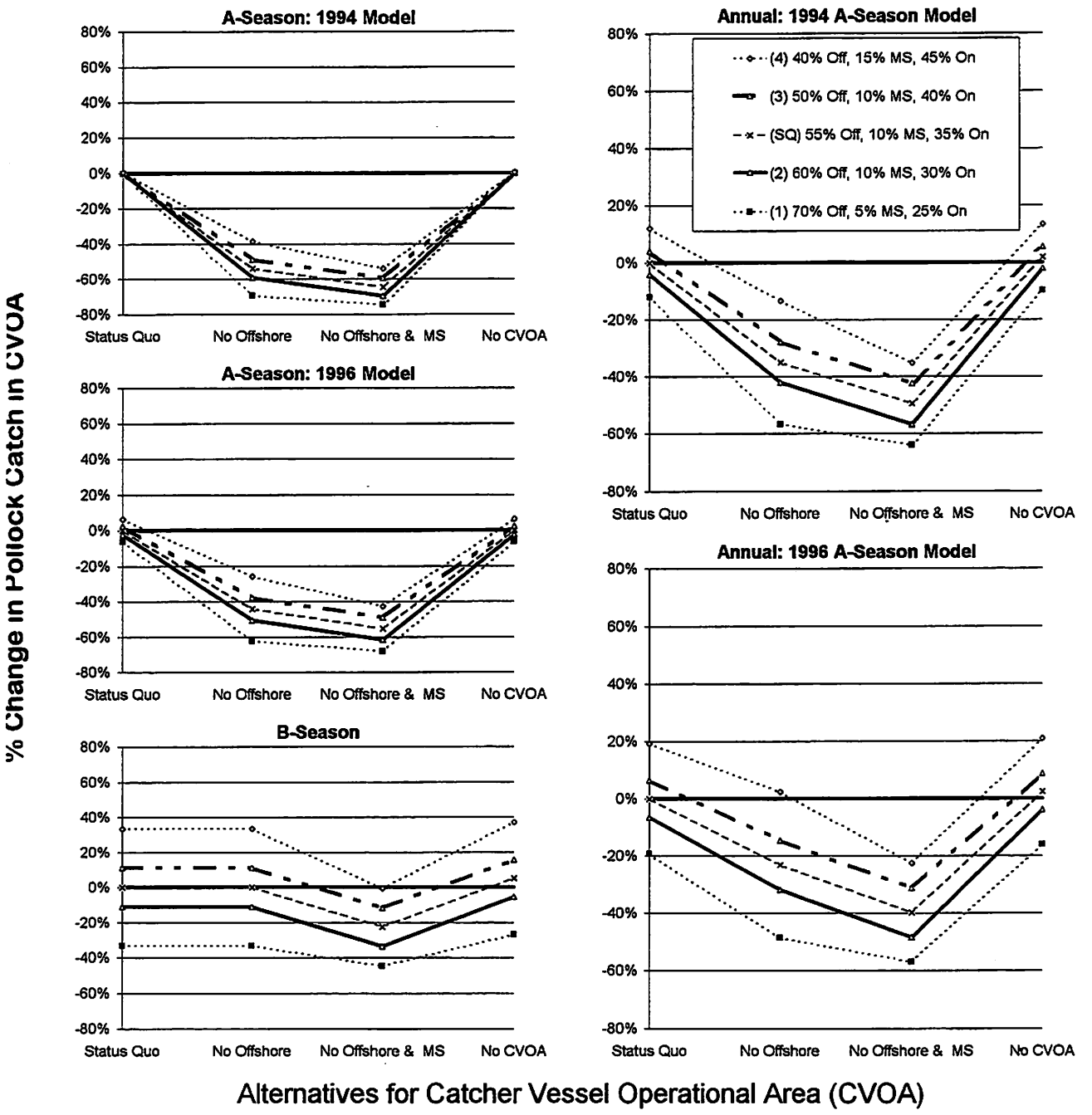

Figure 1. Percent change in pollock catch in the Catcher Vessel Operational Area (CVOA) under each of the Alternative Allocation Schemes (1-4 and Status Quo) and CVOA alternatives. Assumes a pollock TAC of 1.1 million mt, and a 45%:55% A:B season split. A-season projections are based on both 1994 and 1996 distributions by sector. B-season projections are based on 1996 distributions for all sectors and CVOA alternatives except for the offshore sector under the No CVOA alternative, when the 1991 distribution was used. MS=motherships

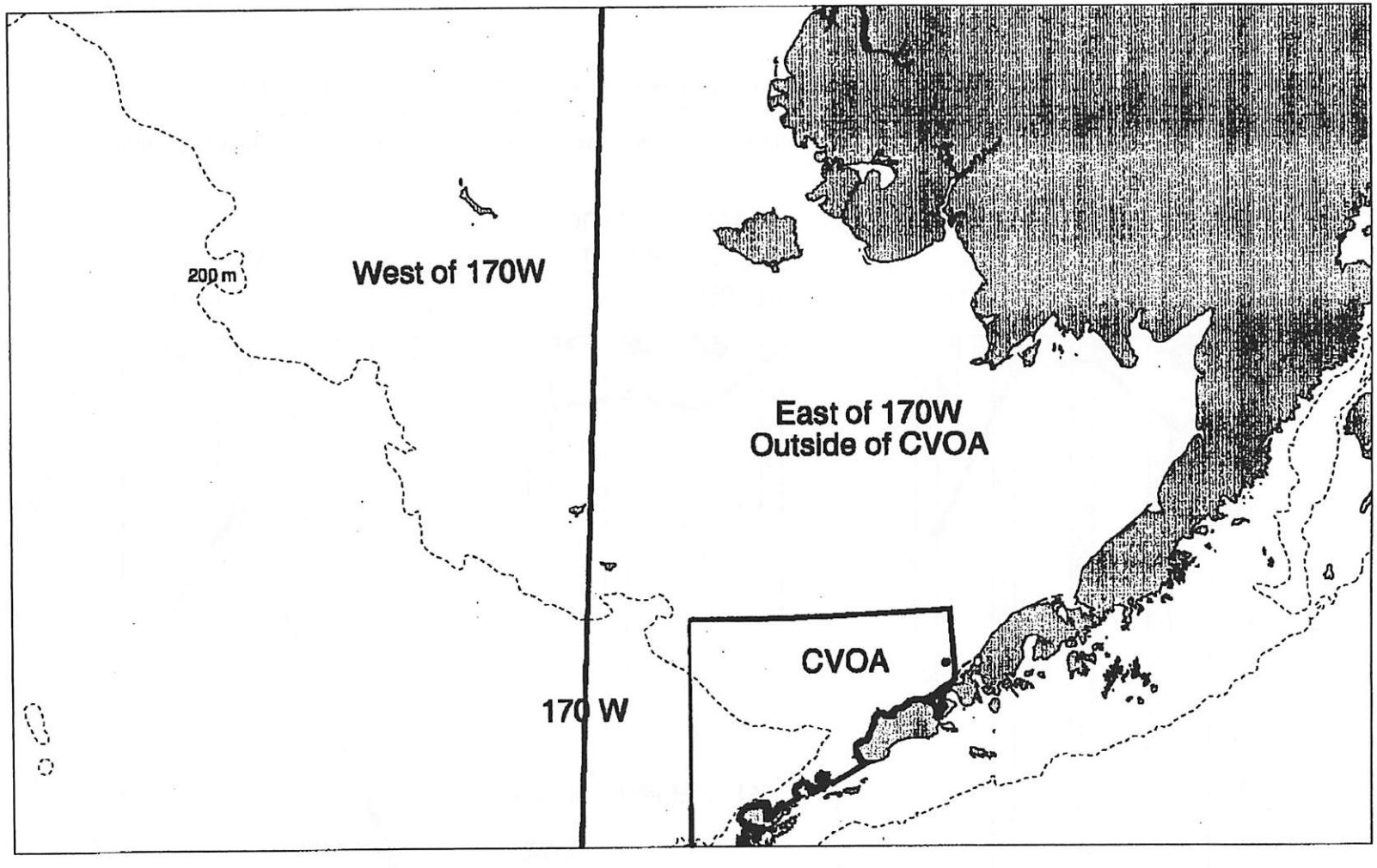

Figure 2. Areas of the eastern Bering Sea shelf used in the spatial analysis of pollock harvest rates.

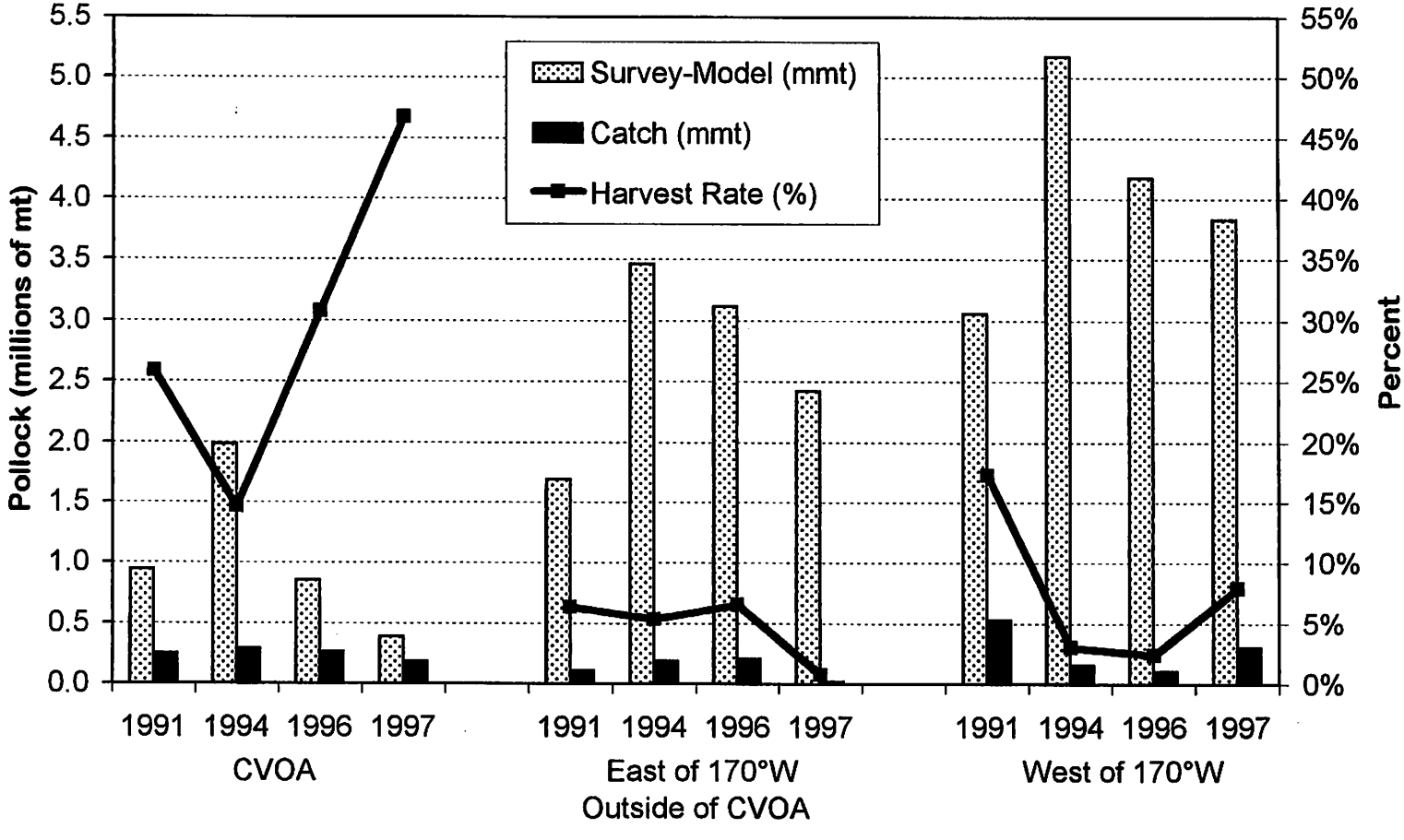

Figure 3. Distributions of age 3+ pollock biomass (millions of mt) from the combined bottom trawl and hydroacoustic surveys and the 1997 stock assessment, commercial catches of pollock (millions of mt) from observer and blend data, and pollock harvest rates (% caught) by area in the B-seasons of 1991, 1994, 1996, and 1997.

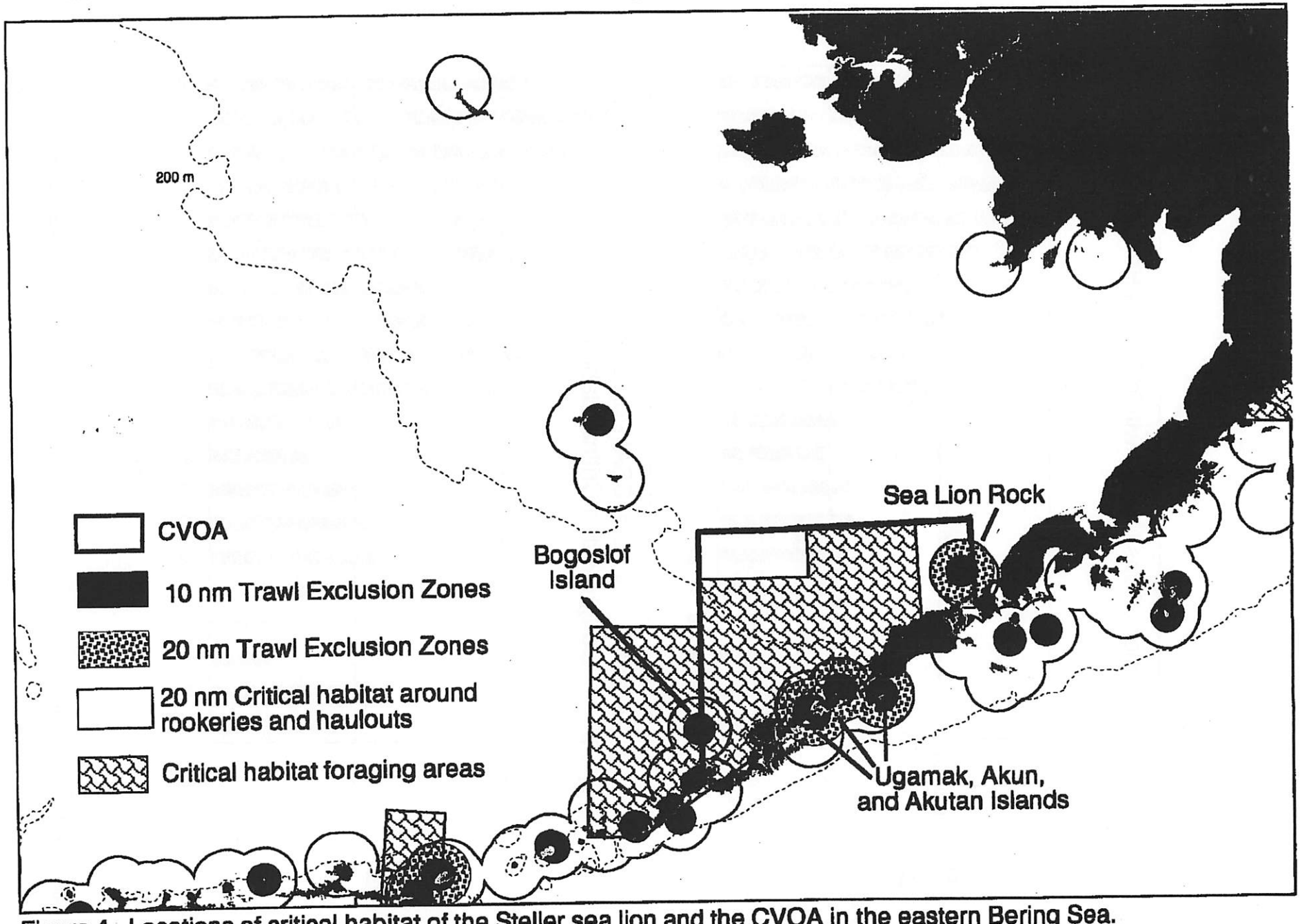

Figure 4. Locations of critical habitat of the Steller sea lion and the CVOA in the eastern Bering Sea.

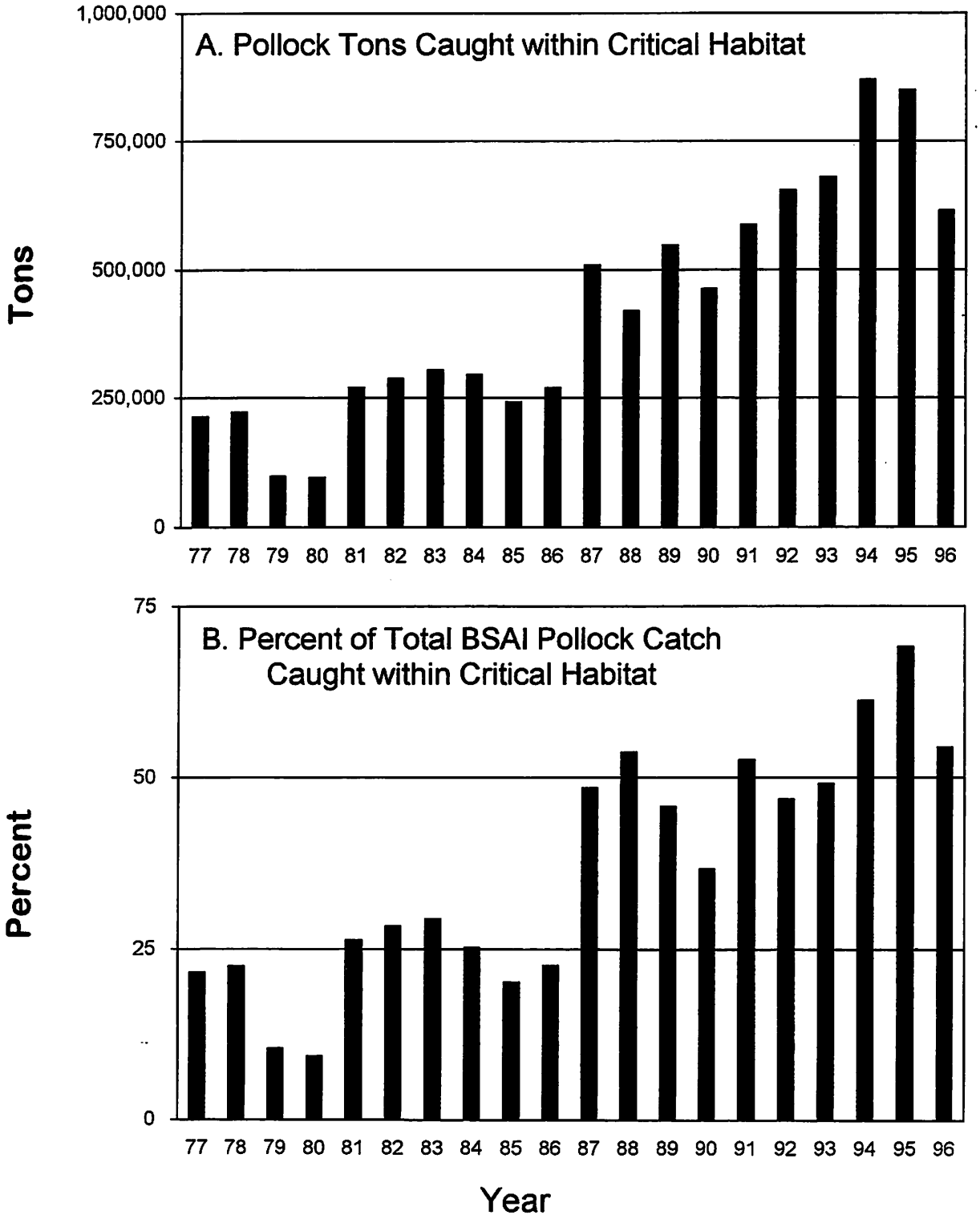

Figure 5. Pollock fishery effort within Steller sea lion critical habitat in the Bering Sea/Aleutian Islands region.

BSFA **Bering Sea Fishermen's Association**

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Serving western Alaska small boat fisheries since 1980

February 5, 1998

North Pacific Fishery Management Council
605 West 4th Avenue, Suite 306
Anchorage, Alaska 99501-2252

Re: Inshore-Offshore 3

Gentlewomen & Gentlemen:

Following is a record of my oral testimony regarding the above-referenced issue, given before the North Pacific Fishery Management Council (NPFMC) Advisory Panel:

Essentially, a community consists of the residents of the community, the people who live there.

And so it is for fishery-dependent communities as well. Fishery-dependent communities consist of the individuals who reside in them.

In reference to fishery-dependent Bering Sea communities, the vast majority of residents of the Bering Sea live in communities that do not have pollock processing plants.

You may, reference the tabulation of Alaska Permanent Fund Dividend data BSFA has prepared.

The data hold no surprises.

The CDQ communities and other small communities nearby on the Gulf of Alaska almost perfectly mirror the number of Alaska Permanent Fund Dividend recipients and the estimated population for each village, but in those communities which have pollock processing plants, the ratio of residents who receive Alaska Permanent Fund dividends to estimated population is less than 50%.

In the event that, and to the extent that the NPFMC members move to increase the inshore allocation of Bering Sea pollock, the most comprehensive manner in which to do that would be to convey it inshore to Bering Sea fishery-dependent communities based on the number of residents who receive permanent Fund dividends in each of those communities. And for those communities which are members of CDQ corporations, their portion should go to the appropriate CDQ corporation, if that corporation is willing to receive it.

Thank you for your attention to this matter, and, if you have questions, please call.

Sincerely,

Jude Henzler
Executive Director

Rebecca Baldwin
NPS Coalition

"Inshore-Offshore 3" umbrella

Four decision items:

1. GOA ALLOCATION PERCENTAGES
   - 1.1. No Action/sunset
   - 1.2. Reauthorize existing FMP language
2. BERING SEA/ALEUTIAN ISLANDS ALLOCATION PERCENTAGES
   - 2.1. No Action/sunset
   - 2.2. Reauthorize existing FMP language
   - 2.3. Adjust the explicit allocation percentages
3. COMMUNITY DEVELOPMENT QUOTAS
   - 3.1. No Action/sunset
   - 3.2. Reauthorize existing FMP language
4. BERING SEA CATCHER VESSEL OPERATIONAL AREA
   - 4.1. No Action/sunset
   - 4.2. Reauthorize existing FMP language
   - 4.3. Adjust the boundaries or timing of this zone

So we have problems & proposed solutions how do we choose among the options?

Criteria

1. Efficiency
   - 1.1. Net national benefits
2. Biological Considerations
   - 2.1. Trends in TACs
   - 2.2. Differences in size, age, sex of fish by user groups
   - 2.3. Differences in location & time of catch by user groups
   - 2.4. Ecosystem Performance Measures??
3. Social Efficiency
   - 3.1. Differences in utilization rates (all products) by user group
   - 3.2. Differences in utilization rates (all product except meal) by user group
4. Placeholder for Comprehensive Rationalization
   - 4.1. Clarification of Sectors
   - 4.2. Option Value
5. Communities
   - 5.1. Proposed Rule
   - 5.2. Social Capital
   - 5.3. Relative Dependence
     - 5.3.1. State level
     - 5.3.2. Community level
   - 5.4. Unemployment Levels
   - 5.5. Jobs
6. Excessive Shares
   - 6.1. Trend in Concentration

Some criteria may be more relevant for one issue than another

Evaluation will provide direction within range of proposed solutions

Comfort level will provide direction on duration

No "bottom line"; rest is policy call

Do we have the information on the performance measures that will matter?

Please note the intent behind presenting these performance measures *individually* is to improve the transparency and understanding of the relative merits of the proposed actions for any given element of Inshore-Offshore 3. The author realizes that there is overlap. For instance, changes in the TACs or harvest levels have not only biological implications but could influence price, revenue, and profitability as assessed in a net national benefits' model (see *Estimated Economic Impacts of Potential Policy Changes Affecting the Total Allowable Catch for Walleye Pollock* in **North American Journal of Fisheries Management** 16:770-782, 1996, by Mark Herrmann, Keith Criddle, Erika Feller and Joshua Greenberg).

Efficiency

A market-based economy is a marvel, having the supreme engine of innovation, production, distribution, and profit-potential. It also has the advantage in that allocation is done implicitly through the 'invisible hand' and this allocation mechanism of individual responses to price signals is deemed to be very efficient. However, society has come to realize that the market doesn't address all the allocation concerns it may have and thus most of us live in mixed economies where we look to the government to address areas of market failures, such as social costs.

For issues like this, the measure most commonly employed by the government is net national benefits. However, it is important to realize that it can't be considered a 'pure' cost-benefit measure as it involves a policy decision on the appropriate accounting stance. Benefits and costs only as they accrue to this nation are counted with no regards to foreign net benefits. When ranking alternative solutions, the one with the highest net national benefits is considered the preferred choice.

The Council just recently completed an analysis aimed at improving use of pollock resources and impacting many of the same companies as the "inshore-offshore" actions. In an August 13, 1997 memo to Kent Lind from Lew Queirolo (the Alaska Regional Economist for NMFS and the scientist responsible for that analysis) stated: "over the almost FIVE years of preparation of IR/IU...the cost data with which to conduct a 'rigorous', 'quantitative' net benefit analysis ARE NOT AVAILABLE..." and "The IR/IU EA/RIR/RFA meets (and in most regards, exceeds) the rigor with which 'benefits and costs' of Council FMP amendments have been analyzed, historically."

This pragmatic approach is entirely appropriate within the context of applied analysis and is recognized in the guide to "best practices" for preparing the economic analysis of a significant regulatory action (see Economic Analysis of Federal Regulation Under Executive Order 12866, 1/1/96 for further details and guidance). In its introduction, the author note "Agency decisions are based on the *best reasonably obtainable* scientific, technical, economic, and other information" (emphasis added). In CBA, as in most other types of analysis, judgment calls are required as to what approach to employ and what data sets to include. That is why these studies are conducted by technical people and in this arena are subject to review by the SSC.

As noted in the September , 1997 SSC's meeting notes on "inshore/offshore 3":

> "There are many potential bases for a Council's decisions. Due to data limitations and the inability to predict responses to regulatory changes, the SSC does not believe that estimation of net economic benefits will provide a defensible justification for choosing amongst alternative inshore/offshore measures." This, of course, raises the question of what will?

Again quoting the authors of *Direct allocation of resources and cost-benefit analysis in fisheries*, "In practice, in the USA economic efficiency frequently plays a smaller role than the socio-economic issues of income and employment, *particularly since many fisheries may serve as the employer of last resort for residents of small local communities.* (P 211, emphasis added). In addition, because the total economic value of most fisheries is usually small in comparison to the total economy, losses in economic efficiency for distributional gains are felt to be

Transcription
NPFMC Discussion on Inshore-Offshore 3
February 6, 1998

[NOTE: To save time and space, the formalities of seeking recognition of the Chair and being recognized by the Chair have been omitted.]

Tape #43

Chairman Rick Lauber: O.K., that concludes the public comments on item C-3.

Bob Mace, Council Member: I'm not going to move the AP recommendation, but I've got a suggestion. The AP has proposed 22 individual items and the SSC has . . .

Lauber: No, that was the vote; there's 17.

Mace: Well, actually one of them has four. . .so, but in any event, the SSC has outlined four areas that need some discussion and I'm wondering, and I'm sure the Council members have some very concrete opinions. . .I'm wondering if it wouldn't be well to have Chris and Darrell go through these items, review them with respect to their validity from the standpoint of analysis and use that as a basis for us to start on.

Lauber: Chris, are you prepared to do that?

Chris Oliver, NPFMC Staff: Are you referring to the items in the AP report?

Mace: And also the SSC's comments. Give us some background, that's all we're looking for, I think, is direction to you folks at this meeting.

Oliver: Well, the items that are contained in the AP's reports, we discussed those, of course, with the Advisory Panel when they were coming up with that list and some of those things on the list are things that are consistent with our game plan for this analysis. None of the items on their list. . .let me start that again, some of the items on the list we'll be able to address to varying degrees. I don't think any of the items on their list are things that we can't do. Our advice to them when we were making this list is, yeah, that's reasonable, we can do that and so, in total, I think there's no problem with us dealing with the Advisory Panel's list. There are some things that we talked about, like trying to identify market or product mix changes that we're going to be very limited in our ability to do, but we do intend to have some treatment, some discussion of that, primarily through Dr. Freese's efforts, but in summary, I don't think the AP's recommendation poses any big problems for us. In terms of the SSC report, I think that's consistent as well. They gave us some advice cautioning us against comparing utilization rates, for example, and asking us to provide appropriate discussions in the document around that issue. They note that we have gaps in the price data and the employment data. And I guess those are the two issues raised with regard to their fourth point, which was the use of industry-submitted data. So, I guess that's still a question for us -- how do you want us to treat the employment data issue, how do you want us to treat the price data issue in terms of filling that gap, and how we would use industry data to do it.

Clarence Pautzke, NPFMC Staff: Chris, on the AP report, item 14 regarding industry information, employment and price data, "the AP recognizes the analysts may be utilizing this information using the guidelines cited in the discussion paper." Are they saying then that they agree with the approach where we incorporate industry-provided information into our document as long as it's cited as being from that source and readily acknowledged so that a Council member or someone reviewing that would know where it came from, is that what they're saying?

Oliver: Well, I think that's what they were saying, Clarence. I don't want to speak for Stephanie, she made the report, but that was our take.

Council member Linda Behnken: Chris, there's some concerns raised in public testimony about being able to compare apples to apples if we're using industry data, and I'm just curious about your comfort level with using that data and how you would go about setting up a procedure to ensure that the information you got did compare apples to apples, or, decide at what level we're collecting, what is baseline data, and. . .

Oliver: I should let Darrell speak to the price data issue. I guess on the employment data issue, what we were going to do, through the Alaska Department of Labor, is cross-check whatever they gave us in terms of social security number information with the permanent fund files. And that's simply going to provide a profile picture of the employment pattern in that sector. It won't be used in any projections of analysis beyond that. It'll probably end up being a one-page table in the document, though it may be of very much importance to folks. I don't know that we have the ability to. . .we're not CPAs, we don't have the ability to, I guess, make an intensive effort to ourselves verify that information. Our assumption was that they were going to go through some audit process, if you want to call it that, themselves to have that information sampled by an accounting firm and we were going to wait and see what we got and people at the Department of Labor would be involved in helping us look at that information and see if it makes sense. . .

Behnken: I think Darrell was going to address the price side of collecting data, if he could.

Darrell Brannan, NPFMC staff: Basically I'd just like to echo what Chris said. Certainly neither Chris nor I are CPAs and we couldn't design a better auditing system than people who do that for a living could. If the Council directed us to use that data and go ahead and go forward and collect that information, there would be some discussion by the Council in directing us to select a firm, or which firm to use, and we would take that information after it went through the auditing process and look at that information and Dr. Steve Freese at the Center would look at the information, and just see if it makes sense intuitively. Given our limited timeline I think that's all we could do as staff and if it looks reasonable, then we would probably go ahead and use it to calculate the gross revenue portion of our analysis for the offshore sector.

Wally Pereyra, Council Member: It seems to me that throughout this process we have what I consider industry-supplied data. We have, as the SSC pointed out, weekly product reports from the shoreside sector that are unaudited. Sure, they go through a State system, but they essentially are unaudited. The staff has to look at that information and decide a yea, or nay, it's acceptable or it's not acceptable. I think the same thing exists here. I think we have to give the final decision to our professional staff. They are under Dr. Pautzke's direction and I have full confidence that they will in an impartial and objective way evaluate the data and decide what is useful and what is not. With regards to the auditing, I think that because of some of the questions that have come up here and some of the discussions I've heard, I think it would be probably useful to have the staff somehow involved in at least looking at what kind of an audit process they're comfortable with. If the staff of Dr. Pautzke, or Dr. Pautzke himself, want to be the ones that would select the auditor firm to do the auditing, to sort of put a little less perceived concern out there, I think that would be a potentially useful process also, but again I think it's one of these issues where we have certain holes in our database and we want to try to provide as good a database as we can to provide this report and the staff is going to need some help in getting that information because as I think it was Mr. Forsyth pointed out, the federal system just has not been set up to collect those kinds of information, so I think this is a process to try to fill in the gaps in an expeditious manner with as much oversight as we possible can give to our staff; that's the way I look at it.

David Benton, Council Member: I've got a couple of questions, if I can. And, Dr. Pereyra spoke to one thing that is of importance to me, and that is, who selects the auditor or CPA firm. But, either Darrell or Chris, have you been party to any discussions so far about the procedures that are going to be used to conduct the audit?

Oliver: We've had discussions on that issue, yes, Mr. Chairman, and we have in fact been provided a draft copy of a agreed-upon procedures report from an accounting firm, between an accounting firm and the At-Sea Processors Association, regarding their statistical sampling procedure they would use to look at the information that was compiled.

Benton: So this is not going to be. . .it's my understanding that this is not going to be an audit conducted according to general accounting practices for audits, that this is instead going to be a CPA firm reviewing data and providing a report, but it's not going to be conducted in accordance with generally-accepted accounting procedures, is that correct?

Oliver: Well, I'm not certain I know what the exact procedures for a formal audit are, but my take on it is that your interpretation is correct.

Benton: And, do you know whether each and every record is going to be reviewed, or is it going to be a sample, a statistical sample taken to check through the records.

Oliver: A statistical sample is my understanding.

Benton: And, do you. . .what kind of control over the receipt of the raw data will the Council staff or the auditor have? In other words, what measures or practices would be in place to ensure that full records, as opposed to some subset of the records, would be provided by industry? In other words, one of the things that we heard through public testimony and that I've had concerns with in other instances is that the raw data, which is of course the basis that you would use, or that you would make your audit of, . . [someone coughed and couldn't hear words]. . .complete or selectively provided? What controls and procedures would you put in place to ensure that it was a complete set of the records as opposed to one that was selectively chosen by the company?

Oliver: I don't know that we have any controls to do that. I don't think that we do.

Pautzke: The word audit, to me, it's almost interchangeable I think in most people's mind that someone is verifying what's in a report or something, the truthfulness of it, and if a company, regardless of what sector they're with, has a big pile of information or raw data and then they've made some kind of a report to the Council and they bring in an auditor who signs a letter saying, well, yes, it looks to me like from statistically sampling this information provided by the company in their database and in their records, it looks like this probably reflects what's in there. There still hasn't been an independent database by which we can verify that what's in this big stack of information here is really true. And so you're always going to have that lingering doubt that what is in the original database supplied, even though they didn't fall off a turnip truck and did make a summary match what's in here, you're going to have a lingering doubt that we don't know if what's in here is actually true. We do not have the talent on the staff, there's no CPAs, we don't have the talent to know or to be able to go out outside this bunch of data to some other database like a state or a federal database where maybe there's a big penalty if they didn't turn it in right, or the IRS, to verify whether their original database is true. We suspect that if a guy didn't fall off a turnip truck, whatever he hands in is going to match what's in here statistically. So, we're not going to be in a position, I hope you're not going to place us in a position, to set up some kind of an audit trail or figure out whether we're getting snookered or not, because we're not going to know. And all we can do is maybe help select an independent auditor and write them a real serious letter, maybe Steve and I would sign it, or the chairman would sign it, and say, do you realize what this information is going to be used for, so don't try and snooker us, but other than that I don't think we're going to know when we getting snookered.

Benton: Clarence, that's all well and good, but the issue is not whether or not the CPA is doing their job. They are under the rules, the professional rules of their profession and they are going to do their job in accordance with that. An audit is a technical term and it has specific parameters around it. It's my understanding that this is not

going to meet those parameters. Nonetheless, auditors very often prepare reports using their techniques that don't conform as an audit, but there are very specific and technical issues there. The real issue is the one I asked Chris about now, which is the raw data and ensuring that it's verifiable. What we're doing is making an extraordinary exception here. If we're going to go down this road, this is a very important issue; I think the data is very important. I would like to figure out a way that we could get it and use it, but it is an extraordinary exception and so we need to be very careful in how we use it, **[Change to Tape #44]** and I think we need to think through this a little bit so we can figure out how we do it, so we have confidence in the information, that's really where I'm heading.

Council Member O'Leary: I don't know whether it would be helpful, and maybe confuse people. . .I don't know enough about accounting practices and professional practices to make a judgement. But there is one of the most knowledgeable accountants related to both. . .I think their company has represented both shoreside and offshore processing, in the room, and for just a moment I wouldn't mind hearing from him what level he thinks, explain the levels of audit, and the degree that he can as a professional feel comfortable that he's providing us accurate. . .or that a accounting firm that this body would choose could provide data. If you wouldn't mind, Mr. Chairman, I wouldn't mind hearing from him for a moment, Bryce Morgan's in the room.

Chairman Rick Lauber: Fine.

O'Leary: It might clear a few things up here.

Lauber (to Morgan): You must have enjoyed watching us being tangled up in our underwear here.

Morgan: Mr. Chairman, my name is Bryce Morgan. I'm a partner in the CPA firm of Kueckelhan, Crutcher and Company, and I'd be more than happy to answer any questions. I think every question you've asked so far, I could give you an answer to.

O'Leary: I have a couple. . . .we all financial statements from time to time and you see disclaimers on them, the information wasn't verified, so we're just using information. . .are you talking about,. . .could you explain levels of audit, and what you can do and where you perceive what level of audit would be done here, Bryce?

Morgan: First of all, Donna Parker probably is the only one that's used the right term. It will not be an audit. It will be an agreed-upon procedures report. The term audit really comes from a review of financial statements and there are three levels of review of financial statements. An audit is the highest level, then you have a review, and then you have what's called a compilation. And there are certain procedures you'll go through depending on what level is requested. A agreed-upon procedures report is something that is customized specifically to the task at hand and what you do with a client there is you find out what your goal is and what you're trying to get at, and then you come up with procedures that you agree to that will make sure that you have properly tested and sampled the information to come up with some type of conclusion, or some type of result that you want.

O'Leary: O.K., so if you're talking then about this agreed-upon procedure, you've heard the tone of the questioning here as to what level of veracity we can be comfortable with. From your perspective. . .explain your sampling methodology if you're going to have this database and what level of comfort are you going to be able to provide us that the information that's in that database is going to be verifiable.

Morgan: What you would do is, it would be random sampling. If you had a database that was compiled for you, you simply would determine if it's high risk, low risk, medium risk, would depend on how many you're going to sample then. The higher the risk the more you're going to sample to get a good survey, but you would simply come up with a random way of testing the information to come up with a statistical analysis of how accurate it is. So, for example, you might, if you have 200 items that you're going to be looking at that are in the whole

population, you might pick 50 of those, and you do it randomly so that it's not tainted in any way, and simply verify the information.

Council Member Steve Pennoyer: I guess a lot of the discussion here is centered on the fact that. . .whether you're seeing the whole loaf or part of the loaf. Now, obviously if you get a piece of it and you go through and randomize samples out of that you can say that piece is accurate, but that may only be this part of the distribution that goes clear over to here, and some of the discussion is centered around whether we're going to ever determine that. And I would guess that what you've said is that you can't do that.

Morgan: I don't think I said that. I hear Mr. Pautzke in his discussion . . . let me give you an example. Let's say, they get payroll information. Well, did they give me all the employees or was it tainted towards, in this case maybe Alaska employees. Well, it's very simple. You've got information you can independently verify, like W2s. W2s have to agree in aggregate to a form called a W3, so if you have all the W2s you can add them up and make sure it agrees with W3 and you know that they haven't left anything out of your population, you've got everything there.

Pennoyer: You might look at that and I guess if you were asked to, you might conduct that analysis, but on other things such as the amount of price information you've got, I'm not sure what you would compare it to. There's no W2 out there, are you really going to know you got all the price information from somebody, so maybe for some aspects, like employment data. . .maybe the answer is, it's going to vary with the type of information and some is more auditable than others and some has things you can check, like employment; other things may not. I don't know. I don't see a simple, single answer to this whole thing because I'm not really sure that it's not different for every piece of information you're given.

Morgan: Again, I think that for almost every problem I could probably come up with a procedure to test it. When you say price information, you're saying price they're selling the product for, is that. . .? Again, I would say that in a fishing company there aren't that many invoices. Again, if you took all the invoices, added them up, compared to your general ledger and assuming they're keeping their books properly, then you can. . .[couldn't understand. . .] that makes sure you have every transaction.

Pennoyer: But that, then, is the type of audit is going to be quite variable then. The type of audit you're talking about is a real audit of the whole package and determining whether it is verifiably representative of the whole picture and you'd have to have instructions to do that. I mean, you're not going. . .those would need to be instructions to your firm to do, or, conversely, you could tell the Council which pieces of information had been subjected to that and which ones hadn't. The Council could draw up their conclusion as to what they wanted to do with it.

Morgan: I think you hit on the key. That's why we call it an agreed-upon procedures report, it's not an audit, because you are going to figure out what procedures one would to test to make sure that you have gotten the result that you want, O.K.? And so you sit down, and I heard that maybe that, I think it was NMFS, would sit down and come up with the procedures. Well, you will negotiate that and say here's what we think should be done to absolutely ensure the accuracy of the information, and that's the agreed-upon procedures, then.

Pereyra: Bryce, I know that the field that you're in has got certain standards and so forth that you deal with. Maybe in a biological sense, this is analogous to the way in which we might sample a catch, for example, or a universe of catches, to get an estimate of some attribute within that universe of catches that meets some agreed-upon standard of accuracy that you're willing to live with. For example, if we were interested in the average size of pollock we might only take two samples out of every tenth tow because there's not that much variability, but if we were looking for the total amount of salmon that's taken, we might have to sample half the tows and look

at the entire catch in order to be satisfied. Is that sort of what you're talking about here? In certain types of data sets you might have to be much more extensive in your inspection; others you may not.

Morgan: That's correct.

Lauber: The procedure, the agreed-upon procedures, do you have an idea how we'd best go about that? While the Council is not going to hire the auditor, we don't have the money to do that, but we might have the money to hire an accounting, a CPA firm, to work with our people to design the agreed-upon procedures and, would that be the first step that should be done?

Morgan: Yeah, I think that'd be very wise because you're only as good as what you put into it and if you don't have the right procedures you might not get the end result that you can rely on, so I think, yes, you need to agree with an accounting firm as to what steps would be taken to ensure the accuracy of the data.

Lauber: And then, we'd set up some procedures for hiring, for some offer, you know, that they would take any firm that is given to them and pay for it, and then we would assign an accounting firm to do the procedure according to the agreed-upon procedures, is that the way we would work this?

Morgan: Yeah--I'm very biased in that I don't believe the accounting firm would matter. I truly believe that if you have the offshore sector hiring their accounting firm and the onshore sector hiring their accounting firm and if you selected the exact same data and eliminating human error, I will guarantee you that they're going to come up with the same answers. That's the whole. . . the majority of revenue of the largest CPA firms is the independent attest function, so I will guarantee you, I believe in my heart, that you will get the exact same results no matter who you hire, and no matter who's paying you. If you think about it, the banks don't come up to a company who's given their financial audit, they lend a lot of money, and they don't come up to the company and say, we're going to pick your accounting firm. You never hear that happening. The, in this case a fishing company, chooses an accounting firm and the bank says yes we'll accept their financial and we'll assume that they are doing their job as required by their standards.

Lauber: So, usually when we hear of a embezzler that has been embezzling from a firm for many years, and is finally for some reason caught, that they have just probably been lucky that the random sample hasn't picked up the phony company that they've been paying checks to and phony invoices and so forth. It wasn't the fault of that particular auditing company, CPA firm, it's just a . . .

Morgan: I completely agree with you. It would be unlucky for the embezzler if you happened to pick a random sample and got the one or few items that they were forging or doing wrong. No doubt about it, the audit is never intended to try to detect fraud, and we actually say that in our report. We will not assure you that we will detect fraud, but if something comes to our attention we will let you know. However, when you have a client that suspects that maybe somebody's doing something wrong, you do a agreed-upon procedures and you agree to what procedures would it be to try to detect fraud and that's completely separate from an audit, and so you go through those items that you think would be best to be tested to figure out if somebody is doing something wrong.

Lauber: And that takes on a character more of an investigation, an investigative audit, than just a financial audit.

Council Member Mace: You've helped me. I'm concerned about how big a load this is going to be and you point out that we could employ a firm to monitor this and give us some direction. CPA firms are very professional and they're also, in my experience, quite expensive, and so I think that we ought to spell out what we want ahead of time and proceed from that point.

O'Leary: A follow-up question to that. Could you give us an idea of what you think, timeframe, in terms of. . .because we are operating under a fairly serious time constraint and staff is going to need the information sooner than later to be able to compile it. To put together an agreed-upon procedure, I mean what are we talking about, timewise.

Morgan: Well, I don't want to mislead anybody. First of all, I think we've talked about a letter that's been out there, and that is from our firm. We have been contacted to do the work. I also want to be clear that you can't be 20 years in a CPA firm without knowing about the audit function but I am a. . .[couldn't understand word]. . . person. It was one of my partners that was agreeing to take on this task and she felt that she could meet any timeframe that was needed and so, we were set and ready to go on this project once the Council gave approval to it.

O'Leary: O.K., so to sit down with Council staff and design an adequate set of procedures, you may have in your mind what it is right now, but it's going to have to flow from us to you and back and forth on your advice. I'm just wondering how long that interaction would take place.

Morgan: Agreeing to the procedures, I think you knock that out in one meeting.

Pennoyer: One more question. Mr. Benton pointed out that going outside of the normal, enforceable, penalty-driven databases is somewhat extraordinary and I think that's true if it's built into. . .somehow gets lost in the analysis, just becomes part of the total set, although we obviously always take public testimony and often we'll think something very important comes to our attention that we want to use in our decision process, it isn't necessarily built in the formulation. I guess what I'm trying to pick out here is, while you do the audits, and maybe you have procedures, there are some things you are probably never going to come completely to grips with. There may be items that, because they're outside of our normal process or are not going to be quote totally verifiable in their contribution to this analysis, and I guess this is to staff, too, because I'm not. . .when we get some of this information as it becomes so inextricably lost in the blend that you can't come out and say, and we based this analysis on this particular information, so people can draw their own conclusions as to whether, or if it can be pointed out that this is extraordinary and this is a problem, does it get lost in the process, or is it still fairly identifiable? I'm not. . .for now you may not be doing some pricing stuff because you don't have comparable data, so that whole thing could be a separate section that says that this part is verifiable, it's normal process, we did have some of this information come through the door, as far as we know it's verifiable in terms of what we can look at, but maybe it isn't every company, and so the representativeness may be in question and the staff or professional people on our staffs could point that out. I'm a lot more comfortable with this if I know that this stuff doesn't just disappear into the decision matrix and the final decision is made not understanding whether parts of it are more verifiable than others, and since even in the normal process I think you do that, you say whether the information in the state or federal database is considered good, I'd think you'd do that, and for things like price or even some of the employment that you haven't been able to include in the blend analysis because of missing pieces, those sections seem. . .[can't understand]. . .jump right out and are identified separately and the pieces that are on one side or the other that are verifiable could be identified and people could draw their own conclusions. Then, if you've also audited pieces of it, that contributes to this discussion. So, I'm not too uncomfortable with doing this as long as the pieces are identifiable, as long as it doesn't disappear into the mass of final discussion and analysis, and I assume you can do that, am I correct?

Brannan: Based on the way this would probably proceed, we'd have separate price data that came in through the processor's annual operator's report for the inshore sector; we'd have this price data that we'd use for the offshore sector. And those would be kept separate, much like we plan on doing for utilization rates. We had the discussion earlier where utilization rates are calculated based on different ways of coming up with total catch estimates. We plan on trying to point those out and keep them separate as much as possible.

Pennoyer: One clear example, I guess, that even if the data is quote, good, and representative and everything else, you may not be able to come up with the exact equivalent of years, things like that. And that may not make a difference in the way we look at things and then again it may, but I think you could point that out and point out whether in fact that was somehow biasing to the way we look at this situation, so I presume you'll be able to identify, footnote, whatever, all that type of thing, and put it in italics or whatever else you needed to do and in that case I'm more comfortable in proceeding that way.

Morgan: I agree with everything you've said there and I think that if you work properly with the staff you could identify in advance where you're going to have some difficulty and there may be one or two steps that you disagree, that there's not sufficient to do and don't even bother with it. If we get done with the process, and as we go through with the process we find out that there were complications or things that we couldn't independently verify, that would come out in your report. As you write your agreed-upon procedures report at the end of it all you will summarize what you felt comfortable with, what you could do, and also areas that were a little weaker that you couldn't give as exact information.

Benton: I think Mr. Pennoyer hit on most of my questions. I just have one other one. For the employment data, were you looking at the same set of years that the staff has been looking at for the rest of the analysis, do you know? You said your firm was involved. . .

Morgan: What I understood was to look at the years '96 and '97.

Benton: Do you have any view on how difficult it would actually be to go back and look at the set of years the Council staff is using for the rest of the analysis?

Morgan: I don't think it's any more difficult going further back.

Lauber: O.K., thank you very much; you've been very helpful and appreciate your taking the time.

Morgan: For eight years I've avoided sitting in this hot seat, so. . .

------Break------

Lauber: O.K., the Council will come back to order. We'll come back in session, Mr. Benton, you're recognized.

Benton: I think we've had some discussion around the room and I think that maybe there's a way to proceed that would allow us to utilize the information that we're discussing, so I would make a motion, Mr. Chairman, and if I have a second I will speak to it. I would move that the Council take the following actions to try and use the industry-generated data of this debate, and those actions would be, in order:

1. That the North Pacific Fishery Management Council would choose the CPA firm which would be involved in the review, and that that CPA firm would not have any business relationship with the seafood industry.

2. That the Council would appoint a small committee composed of representatives of the National Marine Fisheries Service, the Washington Department of Fisheries, or Washington state if they choose someone else, the State of Alaska, and the Council; that this committee would be charged with developing the agreed procedures for the review, agreed-upon procedures report, and the conditions of that report.

3. That for the employment data, that we insist that the review be extremely rigorous and would at least utilize the W2 forms and W3 forms, and

4. For the price data, that it would be equally as rigorous, that there would be a very large sample of industry's books reviewed, and that that review include records that are verifiable, and

5. That it be for a consistent set of years with what is presently in the analysis and that the time series would be the same as what the staff is currently using for the rest of the analysis.

Behnken: Second.

Benton: I have to confess I am very uncomfortable with this. I think we, the Council, is going around the normal process and taking an extraordinary step to accommodate the acquisition of this information. I think because this is such an extraordinary step that we have to be very careful that the information that we're collecting is verifiable, both for the purposes of ensuring its accuracy and its utility, but also to ensure that we do not create the perception of special favors or the use of information that is inappropriate. I think that the steps that I've just outlined would help go a long way to address those problems and also provide the Council the ability to get at that information. I think we all agree that that information is important. Normally, we would use records and information that are generated through the regular process of acquiring that information from state or federal agencies through the use of reports prepared by professional consultants and that kind of thing and allow industry-generated data such as this to be provided through public comment. In this instance I think that the information is important; I think we all recognize that. I think we can devise a way to get at that information. I'm hopeful that we can do it in the time allotted, but I think this is a wise way that we can proceed. And, I guess my intent from this motion is that consistent with what Mr. Pennoyer was saying earlier, that the information that's generated in this regard would be provided in a manner that is clearly separable from the rest of the analysis, clearly identified as to its source and its limitations and that in April when we had a chance to review this we could make a decision about whether or not we include it in the final analysis, or how we include it in the final analysis to ensure we minimize the problems I've identified. Thank you.

Pennoyer: Partially a question, and then a follow-up comment. You mentioned both price and employment data and I'm not sure these two things are exactly the same. I think the employment data exists in the very records that are audited that are subject to federal and state reviews, they just aren't aggregated in a way that we can do much with them. Nobody's gone and dug out all the W2s and aggregated them by known sectors, but I think the data's there, whereas I'm not sure the price data actually exists anywhere that anybody has demanded that we can get at, so these are kind of two different level things. The employment data. . .you can respond to that, and then the second piece to the same question, I think, is your last comment on years. I'm not sure exactly what that means. We've used years in the analysis on some items relative to information that's available to us. I'm not clear in something like employment, for example, logic tells me I wouldn't be interested in just one year because anybody could have done anything in that one year, like it was '96 or '97. At the same time, if you had a subsample of the period of time involved that was adequate in my view to seem what was, quote, representative, or what was changing in the fleet out there, then I wouldn't mind seeing that and having that in as part of the discussion and analysis, so I didn't exactly understand what you meant about years.

Benton: To the extent that it is possible, I think that the analysis, because we've heard a lot of comments about symmetry, needs to be symmetrical, and I believe in order to get a good picture of the relative changes that have occurred within the various sectors as compared to each other as well as within themselves, over time, we need to have the same time sequence. Clearly, if the information is not available, then staff need to identify that for us and try and present the information to us in a manner that is useful. Maybe something isn't there in 1991 or 1992, but it's available for '94 and '95 and '96; fine enough, let's just denote that and get on with it. I think this is much more important in terms of utilizing the price data than the employment data. The employment data, as you pointed out, should be fairly well documented and easily verifiable because that is done through government forms that are filed every year and can be accessed and there should be little problem there in my mind. I may be wrong and I'd look to. . .you know, the staff would have to sort through that. Price data I think, because prices

change so widely on an annual basis, it's much more important in many ways to have that time sequence and series similar, understanding that of course, like I said, if the information is not there for say '91 or '92 but might be for '95 or '96, we're just going to have to recognize that. It needs to be very clearly denoted. But because of the variability in price data and also because of the, what I would term, the softer nature of the raw database, it doesn't go through government reporting procedures that are standardized in any manner and it's going to be a little bit more of an art as opposed to hard data, in my mind. So, staff's going to have sort through that. But, because of its variability I think the rigor there is going to have to be very, very high.

Pennoyer: Based on that explanation, or discussion, I agree. I don't know about the procedures set forth in terms of the timetable and I think that employment stuff is reachable and I would hate to have our process mean that I couldn't see that comparable employment data when it comes time to make a decision in June. So, I concur with Mr. Benton; I think things like prices and things that have extreme variability between years and between companies are going to be a lot harder **[Change to Tape #45]** to verify that these are actually representative of the situation. I mean, I might be proven wrong, and that's fine, but I would not want our process to get in the way of the employment data, so I hope the four of us can sit down and, whoever the four of us is, and make these decisions and get firms and do all the rest of this stuff rather than come back in April and say well we just couldn't get to any of that stuff 'cause there was no time.

Pereyra: I certainly have no problem with us getting the best data set possible; I think we're going to wind up with this data set probably being the best data set we're going to have in the entire report. I will note that things like vessel price information that they're getting and so forth, some of that was just based upon interviews with fishermen or associations and it's accepted and put in the report here. I am also in the same situation as Mr. Pennoyer. I'm concerned about the time frame here. I don't want to see us come up with a system that is so cumbersome that it would result in us not achieving our objective here and I think we have to keep that in mind and this is why I certainly look to the staff to be providing the bulk of the analytical type of work and the bulk of the work in trying to put something together that meets the standards that they're looking for. I think it's fine to have Council overview, but I have a little concern about getting the Council involved in sitting down with a CPA firm and trying to make sure that the 'i's are dotted and the 't's are crossed and so forth because I think that is going to slow the whole process down. The other thing that I have concern about is. . .I'm concerned about how the information will be used once we have it. For example, I think it should be noted that because of the financial problems that have existed in the offshore sector in the last several years, some of the firms, in fact a number of the firms which were here in '91 are no longer around. So, if you look at firms that are here in '96 or '97 and you try to trace back, there's not many of us left. So, getting that kind of comparable information from '91 to the present is going to be, I think, fairly thin and we may find that we're going to be looking at more of a snapshot of the current situation, so I just offer that as a note here, as a footnote, because I think we have to be aware of what we're going to be getting back.

Pautzke: I'm wondering about the expectations of the Council and the kind of response they're going to get to this. For example, we could get together the committee this coming week; we need to if we're going to do something with it; have to assign the committee. Then, by the end of the following week we need to have gotten together with this independent audit firm and figure out these principles that we're going to use. Then, would we just kind of be putting a notice out on the street that companies that want to go through that audit procedure and meet those tests would provide some type of information, or are we expecting some kind of sectoral aggregation, or is it just whoever has the money to get an audit or, for instance some shorebased plant or some particular offshore company could say, well I'm willing to go through those steps and provide you employment or price information, or is the expectation of the Council when they get to April or June is that they would have some kind of an aggregated sector-wide representation of this type of thing. What are you thinking here?

Benton: It's my understanding that we're trying to fill a hole in the data set that we don't think we can fill in any other manner. So, it'd be my assumption that at least for the offshore sector they've thought about this and that

they're relatively organized and are probably ready to help out. And so, I would assume that all the companies would be willing to open their books and be willing to participate. I guess that if other members of the industry, from other sectors, want to participate in a similar exercise, or through this exercise, I for one would not want to see them limited from that opportunity, but in my view the main reason that we're doing this is to fill this hole in our data set. So, I guess the way that I would look at it is that you or your staff would let industry know what's going on, but I would expect that the offshore industry sector would be ready to go real quick. And I don't know if the other folks want to or not.

Council Member Austin: I'm not sure if this is procedurally proper, but we have as motion on the floor that involves a party that's not part of that and I wonder if it's appropriate to ask Mr. MacGregor to come back forward and comment on whether what we are proposing is still within the scope of what they were originally offering.

Lauber: Any objection? [Paul MacGregor comes forward] Do you understand the question?

Paul MacGregor, At-Sea Processors Assn: Well, I think I do. It's, given the way this thing is going are we still enthusiastic about this approach. I think this data that is missing from the assessment is essential. I don't think you can actually have an analysis to base a decision on unless you have price information associated with the offshore products and employment information. We are very much interested in trying to provide you credible sources of that information. I must say that Mr. Pereyra's comment is particularly germane here. Our industry and the players in this industry today are quite different than the ones that were there in '91 and Mr. Benton in particularly has focused on having parallel data for '91, '94, and '96. Dave, I can't promise you that we can satisfy your needs on '91, and '94 will be a little more possible, but you know, we've got seven companies now; in 1991 we had 21 companies. And, when a vessel or company goes bankrupt it's their assets that are assumed, but they don't take their business records and everything else, so I think what we'll be able to do is take the existing companies today and try and go as far back as we can, but that's all I can promise you. With regard to the procedures that you've set forth here, I don't know how much this is all going to cost; this is a little more complicated than what we had originally had in mind and we had talked to Mr. Morgan before we came up here and had them actually prepare a draft protocol, what did you call that? [to Morgan]

Morgan: Agreed-upon procedures report.

MacGregor: An agreed-upon procedures report. I think I referred to it in my testimony as an audit and it's clearly not an audit; it's this procedure as he described it. But, the discussion that you've had included having other companies that aren't members of our association participate, other sectors of the industry; I'm not quite sure my membership is willing to be paying for the cost associated with that kind of exercise. We are willing to proceed here to look at the data associated with our membership. We represent probably 75% of the offshore catcher-processor sector. We have had some willingness on the non-membership to provide the data that we have asked for so far, but I can't guarantee you that they will continue to participate here. We have had a lot of reticence, if you would, from individual companies to have anybody look at their individual books other than the auditors, or other than the CPA firms, so, whatever the process here is, I'm not sure that individual companies are going to want their books looked at by all these people you're talking about participating here.

Lauber: Wait, wait, wait. Let me clarify something. Are you talking about the committee that we would set up, would be looking at these books? That's a misunderstanding. If that's the case, that's not what I understand. The committee is only to set up the agreed-upon procedures, not to have ADF&G and Washington Dept. of Fish and National Marine Fisheries Service actually look at the books themselves. It would set up the procedures, then the accounting firms would look at the books.

MacGregor: O.K., that's a little different than what I understood. This is a very sensitive issue. . .

Lauber: Is that your motion, Mr. Benton?

Benton: Mr. Chairman, you stated it quite clearly, yes, that is.

MacGregor: This is very sensitive information as I'm sure you can appreciate and the idea of an auditor coming in and looking at the books, or professional reviewer if you would, is, I think, would be acceptable to the various players. But, once you get beyond that, the enthusiasm for participating is going to go away real quick. Ed is the one at the association that has really been looking into how we might do this and I think he can really be a little more specific about how we'd respond.

Ed Richardson, At-Sea Processors Assn: Just with regard to the timeframe, our members are organized and ready to roll, but not from 1991 to the present. We had been working with staff to compile this data with the idea that what was important to this analysis here was to get the best view of the baseline year that was possible, and that's 1996. So, we have been focused on 1996, both to meet Darrell's needs in his revenue snapshot analysis and in the utilization rates. And, also, we assumed that most people were interested in employment impacts for the most recent year, the baseline year, 1996, so that was really the focus of our effort.

Lauber: Well, this committee would establish the procedures and it seems logical to me that if something is not available they would establish a procedure that you can't audit or review something that isn't available; you'd have to work with what you have. I'm quite frankly more concerned about non-participation and someone that feels that their records might not be in their best interest would decide not to participate, not as much because it might cost a little bit of money, but because they might not. . .say, well I'll go for employment, I've got real good employment records, but my price data might not be all that good.

Richardson: Well, we have commitments from our members, complete willingness to participate and I was assuming that by using the totals for our members the staff could just judge the representativeness of the data with regard to the total universe that's out there. And if other firms want to supply additional data through the same process, it could be combined and the staff could then determine how much of the universe they had data for.

Lauber: I understand, and certainly you're not. . .neither have the authority or do you care to make a representation for others that aren't your members. But as far as the Council is concerned, if this motion is approved, I think you would understand that the invitation to participate would go not to just your members but to all of the affected portion of the industry. Obviously, it's a voluntary program and if they do not choose to participate, that would be duly noted and for whatever purposes taken into account, but we would hopefully expand this to as broad as possible.

MacGregor: Mr. Chairman, I just reiterate my earlier comment that our willingness to pay for this exercise sort of falls off the table once you get . . .

Lauber: Again, I think that's something for the committee to establish the procedures. I suspect that however you work it out would be up to you and your members, but that it probably would be up to the individual companies to pay for the audit as far as we are concerned. If you wish to pay for all of your members, that's satisfactory I'm sure.

Behnken: Can you tell me what percentage of the at-sea fleet that your membership represents?

Richardson: I think in the catcher-processor category we probably represent 75-80% of the fleet. That's a rough estimate, but I think that's pretty accurate.

Benton: Paul, I recognize the problems that you were saying about companies coming and companies going, but I do believe that you have a number of companies in your association that have been around since 1991, 1992, is that not correct?

MacGregor: Actually, just off the top of my head, I think all the companies that are members have been around for a number of years. Maybe there are one or two exceptions weren't around in '91, but in '91 the vessels that are here today, or the companies that are here today, had a total vessel ownership of probably 10 boats among them; today we have 23, 24, 25 boats among those member companies.

Benton: Well, that's fine. But still some records I think will be available that will go back that far and I think we can get some price data out of that if we work at it, don't you?

MacGregor: I believe that you could. There have been some analyses done of data, price data, my memory's failing me here, but in inshore-offshore number one you had some price data and in inshore-offshore number two I believe there was some price data, and I think that information is already part of the record. I can't swear to that, but my view of this, Mr. Benton, is that the more recent data is more relevant to your current exercise and I'm not sure that it's as. . .you get as much bang for your buck as going way back to '91 and trying to re-create price data from that year as it would be to look at '96 or '97 as more representative of the current state of affairs.

Richardson: And I've talked to our firms. . .for those earlier days it's moved off-site, if you're getting ready to go quickly, there could be some real logistical problems.

MacGregor: Off site, you mean in storage?

Richardson: In storage, other places, it's not in their current system.

Benton: And I would assume you'd work that out with the group that's going to be looking at this, that. . .one follow-up question, Mr. Chairman. I really do appreciate the effort that you are trying to put forward to try and provide this kind of information and I think we all recognize that this is somewhat of an extraordinary situation. You've seen the recommendation from the SSC with regards to data collection, and I was just wondering if the at-sea processors have a position about that recommendation for the Council to move forward to require reporting that kind of information?

MacGregor: We did actually testify at the SSC about that point. The association, at least the leaders of the association, in particular the executive director, would very much support that kind of exercise. It seems to me, if I may, Mr. Chairman, that. . .

Lauber: Ah, no. We're off the subject. That's very interesting, but let's stay to the thing; you range far beyond what the question itself was and I knew that was going to happen, but. . .

[MacGregor apologized and made a comment I could not hear as others were talking at the same time]

Lauber: In fact, if we go on much further I'm going to have to open up public comment again for everybody. . .so unless you have something important to say Mr. MacGregor, thank you.

MacGregor: Thank you, sir.

Oliver: Mr. Chairman, there's been talk about timing. I just wanted to maybe make a point that when we're talking about the employment data which we're going to end up basically providing you as a 'here's a snapshot' for whatever years we have of the employment, sort of a profile. That's not information we need tomorrow;

that'll end up being in the document, that's not something we need right immediately. The price information is on a different timeline and I suspect there may be two different sets of agreed-upon procedures for each of those two pieces of information. But the price information is something that's on a much shorter timeline for us to incorporate it in the analysis.

Lauber: Now, is there any further discussion? We have before us a motion, any more debate? Are you ready for the question? Is there any objection to the motion? Hearing none, it passes.

Lauber: O.K., now we have incorporated that in our overall scheme of things.

Mace: I move that the Council direct the staff to review and consider the items proposed by the AP and those items, other than the two issues that demand auditing, proposed by the SSC for review and come back to us in April with an appropriate analysis.

Benton: Second.

Lauber: And, that's the other appropriate AP motion incorporated?

Mace: Yes.

Lauber: All right, is there any further discussion of the motion?

Robin Samuelsen: Under the community dependence, you have a study going on by Impact Assessment, Inc., for Akutan, Dutch Harbor, Seattle, and then you have the CDQs separated out and a study being conducted by the McDowell Group. Is the information that you're going to derive from both studies going to be basically the same? And if not, what's the difference between the two?

Oliver: There are, as you point out, two separate studies and they're being conducted by two separate entities, neither one of which is Council staffed though we've had some oversight in both our contract and working out the statement of work, but I don't know that they're going to be exactly the same. I don't know that they're looking at comparable issues. We specifically asked on the CDQ-related issue for a report and analysis that says, define what the linkages are of the CDQ program and the different pollock sectors and then what might be the impacts to the CDQ organizations, their business development plans and the communities, of a change in the allocation. So, I think it was a much more specific focus than what we're doing with the Impact Assessment work. I think that the Impact Assessment work likely will also treat on a general level, not on a specific community basis, but on a general level will also speak to impacts to Western Alaska coastal communities, probably on a more general, qualitative basis. So, I'm not sure I'm answering your question fully and I don't know that I can. I can't predict exactly what we're going to see in those two different reports.

Benton: Chris, the information that's being collected by the Council staff and with the State agencies on employment and revenues, those are considering all the communities in Alaska, for both of those issues. So, those communities in Western Alaska that receive, for example, revenues from the offshore fisheries will be considered and that information will be incorporated in the analysis as will be employment data, will it not?

Oliver: Do you mean will we assign revenues to specific communities? I. . .

Benton: I think you will get information from the Department of Revenue that shows where the revenue streams go, say from the State raw fish tax and the taxes. And I also think that you'll get information that shows employment by Alaska and probably that information, I'm assuming that that information at least, can be broken

out more or less by community or region of the state; I think that's been done in the past and I think that's what's being done now, is it not?

Brannan: I think that could be accomplished. The way the Alaska Department of Labor has determined residence for the onshore sector and we'll use to determine for the offshore, is going back to the Permanent Fund database. I would assume that that has a city of residence in it.

Benton: O.K., if I could just follow up for just one second. And then, so we'll get those kinds of impacts, if you would, documented in the analysis. The McDowell Group reports are of course much more focused and if my recollection is correct, there are two of those, one of which is impacts to the CDQ program, which is a fairly rigorous and thorough analysis that looks at those communities and those programs and tries to document and assess the impacts of changes in inshore-offshore to those communities. That level of analysis I think is going to provide us with considerable insight into what will happen in the region of Western Alaska, will it not?

Brannan: That analysis is being conducted by the State of Alaska; it's being farmed out to the McDowell Group through some money we've supplied the State and based on a very brief look I've had at the survey that I think is planning on being sent out today, perhaps, to these communities, it appears that it would.

Benton: One final one. So, in terms of us being able to discern the effects of changes in allocation with regard to communities in Western Alaska, the information that we have probably will come from a number of sources and probably would allow us to discern those impacts, in your view.

Oliver: I certainly hope so. And, again, as you note, and Mr. Samuelsen, we'll have two or three different sources of information on these issues and my fervent hope is that together those will all provide you with useful information. The fact that they may not be done exactly the same should not, I don't think, be a problem, but rather give you additional perspectives.

Benton: Thank you.

Pereyra: While we're on this subject, will the Department of Labor be using the same criteria for determining residency in the offshore sector and then the inshore sector?

Brannan: Our plan is currently is to use the same procedure. The Alaska Department of Labor has indicated that they would feel more comfortable using the social security numbers and comparing them to their Permanent Fund database. Based on their experience in determining Alaska residency in the oil industry and other industry that they do similar studies on, they feel that's the best way to determine actual Alaska residence, assuming that anyone who would qualify as an Alaskan is likely to want the money from the Permanent Fund.

Pereyra: So, the answer is yes, they will be using the same criteria.

Brannan: Yes, it is.

Pereyra: One other question. The Impact Assessment study that's going to be going on; they will be focusing certainly on Dutch Harbor. Will they be able to separate out the contributions and impacts, 'cause it'll be on both sides of this, both the inshore and the offshore sector in Dutch Harbor community?

Oliver: We certainly expect them to do that, as well as for the Seattle community, too.

Lauber: O.K., does that exhaust that one? Mr. Benton, I had a question on the committee that you mentioned. I have no problem, obviously, with ADF&G, National Marine Fisheries Service, and Washington Department

of Fish, but in your motion you indicated 'and the Council.' Did you mean by that another Council member, or did you mean by that Council staff?

Benton: I meant Council staff, Mr. Chairman, executive director or somebody the executive director appoints.

Lauber: O.K., . . .the appointments will be Steve Pennoyer or his designee, Mr. Austin or his designee, Mr. Benton or his designee, and Dr. Pautzke or his designee. And I would ask that that committee possibly at the lunch hour get off and pick a time, early time, staff has asked us for that, possibly sometime next week, to have their meeting. O.K.?

Pereyra: While we're on the subject of community impacts, on Table 1, page 5 of your document, you've got a very interesting table there, 'the relative parameter controversy significance and uncertainty.' Could you add community impact in there? It seems to be missing; maybe that might be an interesting category to put in that table.

Oliver: Certainly we can add it; that table was put together as sort of an internal tool for staff as we were laying out the different parameters and actually Lew and Darrell tried to talk me out of including it in the document and I wish I had taken their advice because there's been a lot of discussion about it.

Pereyra: I find it very interesting.

Lauber: O.K., does that exhaust agenda item C-3?

Pereyra: No, no, no, no.

Mace: We have not voted on my motion . . .we got off on to another track.

[Several people talking at once]

Lauber: . . .All right, but we do have the motion the floor, all right.

Pereyra: I had some questions that I had developed over the course of our discussion and I'd like to have them aired if I may?

Lauber: You have the floor.

Pereyra: Regards to the CVOA, we don't have a survey during the 'A' season that allows us to look at this whole issue of relative removals and I'm wondering if it might be possible and here again this is probably a stretch, but if it might be possible to look at the CPUE data to see whether that might be useful in ascertaining the relative abundance of pollock in that area [change to Tape 46] and to ascertain whether or not there are patterns that may suggest localized depletion issues or something of that nature. I don't know if the data lends itself to that or not, but I just kinda thought that that might be something you could look at.

Brannan: I certainly don't have an answer, but we could certainly ask the Center if they could look into that.

Pereyra: One issue that still I'm not totally clear on, and that is, how the Gulf of Alaska fish is handled in this particular exercise. Now, we know that there is Gulf of Alaska fish which is being processed in quote, unquote, Bering Sea plants and vice versa, there's Bering Sea fish which is being processed in Gulf of Alaska plants as they're designated. Are you able to remove not only the catch but the product and the tax contribution that those fish are adding or subtracting from our analysis here so that we have a real clear picture?

Brannan: We are able to do that for the catch portion of the analysis. In the blend data there's a field that designates the three-digit National Marine Fisheries Service zone where the fish was harvested. It also indicates the processor that the fish was delivered to. So, we can separate out differences in where the fish was caught and whether they were delivered to the Bering Sea or Gulf. The tax issue is a little bit different. Taxes are based on where the fish was landed so in cases where some fish may have been harvested in the Bering Sea but offloaded in a Gulf port, that would be miscounted essentially. It would go to the wrong area in terms of where it was caught. We can't do any better job than what we've already done in separating that issue out in the tax tables that are currently provided.

Pereyra: Can you determine from the catch data whether it's a positive or negative bias? Whether it's a negative error or positive error, by looking at the relative. . .is there more Gulf fish coming into the quote, unquote, Bering Sea plants than there is Bering Sea fish going to Gulf plants?

Brannan: We have not looked at that issue in terms of taxes. The table that we've provided was based just on Bering Sea/Aleutian Island taxes, it didn't include Gulf fix taxes, and so we have not asked the Department of Revenue to provide that breakout. I could ask them and see if they could.

Pereyra: Maybe my question was phrased wrong. You do have the catch data and you're able to determine how much Gulf of Alaska fish wound up in the Bering Sea plants and you also can determine how much Bering Sea fish wound up in Gulf plants. Using that as an index, can you just indicate whether, what sort of an error might be present there, because there's obviously an error. The tax contribution may be underestimated for all I know.

Brannan: We could look at that. And that would be for the raw fish tax, you're not talking about using that for catcher processors offloading product?

Pereyra: Well if you can provide information on that, too, that's useful, but maybe you can't. What about the issue of products, how do you handle those products which are produced in Bering Sea plants from Gulf of Alaska fish, because that's been an increasing contribution, particularly as the Gulf of Alaska quotas increase?

Brannan: In the document that you have before you, only Bering Sea-caught fish are included in the product report. That's where there's plants such as King Cove, Sand Point, included in our analysis, because we're just looking at, in the profiles you have, the Bering Sea catch and where it's processed. And, we have not included Gulf fish that was processed in the Bering Sea plants.

Pereyra: O.K., you haven't included the fish, but how do you, . . .for example, let's take Akutan. They obviously are processing some Western Gulf pollock. How do you take that product out of the equation so that you are in fact measuring. . .if you're measuring utilization rates, for example, so that you have some measure which is reflective of the fish which is actually from Bering Sea which is processed in the plant?

Brannan: It's the same answer, the weekly production reports are separated out in the same way we're doing catch so only products coming from Bering Sea fish are included in our analysis currently. If I'm missing. . .I may still be missing your point, I'm not sure.

Pereyra: Well, maybe I don't understand the system. If a plant is processing and they have fish from the Gulf and the Bering Sea being processed in the plant, how is the relative contribution of product from those two areas separated out? Is that done on the weekly production report?

Brannan: Yes.

Pereyra: So that's reported by the plant?

Brannan: Yes. In theory, there may be some errors associated with tracking that fish all the way through the plant and I'm certainly not an expert on how that's done, but I would assume that the plants are supposed to report the products that came from Bering Sea fish and those that come from Gulf fish and there's a designation on the weekly production report reporting the source.

Pereyra: I see. You rely on the weekly production reports from the plant.

Brannan: Yes.

Pereyra: One of the areas that we're going to be looking at is potentially separating out the sectors by themselves. Are you planning then to track the individual sectors, to the extent that you can, through the report? In other words, breaking out true motherships from CPs, from shoreside, as you go through?

Brannan: That was one of the requests of the AP, that whenever possible we provide a separate breakout of the true motherships and their catch from catcher processors and try and include a breakout when possible of catcher processors when they were catching their own fish and have a separate subheading under there for when they were acting as motherships.

Pereyra: So you'll probably have a table in there that will show the relative percentage of the total, for example the total Bering Sea catch which went to each sector by year?

Brannan: Yes.

Pereyra: And will you also be able to show the contribution by catcher boats to each sector? For example, in the CP sector there's been an increasing trend to take fish from catcher vessels, because one of the issues we're looking at is whether or not separate quotas for catcher boats, or some percentage for catcher boats is reasonable.

Brannan: Yes, if we do that breakout, breaking out the catch delivered to catcher processors, that should be reflected in those tables.

Pereyra: I recall back when we were doing the IR/IU analysis there was some very interesting information there about the numbers of catcher vessels which were 100% onshore, 100% to motherships, and 100% to CPs. And there also were those that made partial deliveries. You may recall, I don't know if either of you worked on that document. . .could that information be included in the report?

Brannan: Yes, I remember seeing a similar table that I believe it was Dr. Lew Queirolo or Joe Terry had put together, and we can break out information from where the catcher vessels are delivering. As you know, most of the shoreside deliveries show up on fish tickets and at-sea deliveries show up the National Marine Fisheries Service observer program data. And, given time, and we'll rely on the Center to do that, it can be done, and we probably will have time to do that.

Pereyra: It makes it helpful, rather than having to bring the IR/IU report along with this one.

[Miscellaneous comments while waiting for Dr. Pereyra to check notes]

Lauber: O.K., is there any other debate on this issue before we take a vote? O.K., we have before us the amended Mace motion which is the AP report as amended by the Council. Are you ready for the question? Was there any objection to the motion? Hearing none, it passes.

Behnken: I have another motion to make. It's maybe a little bit tangential, but it's something I don't want to see slip through the cracks, and that is following the AP's recommendation that we initiate a plan amendment, and I know it's nothing that's going to happen really quickly, but to institute a mandatory reporting of prices along with catch data and the collection of economic data on costs from the industry. And, if I have a second I'll speak to that.

O'Leary: Second.

Behnken: I'm pretty frustrated by the fact that we're once again in this position of having limits on our data because we haven't started this process and having to rely on the industry and then questioning how accurate the data's going to be and I think that we need to get this into motion. It's a strong recommendation from our SSC and my expectation is that the SSC will work with NMFS to put together the kind of program they feel we need to have the kind of data that we need in these kind of decisions.

Lauber: As I mentioned earlier, Mr. Austin had requested a committee, and it's the Chair's intent to give that some attention here soon knowing that they probably wouldn't be addressing it, at least spending an awful lot of time on it until after we get done with this. But that would dovetail with. . .I don't see that as inconsistent, do you Mr. Austin, with what you've requested for that purpose?

[No verbal response from Austin]

Pennoyer: Just quickly, in a discussion with Dr. Marasco when he made the report, he volunteered as a non-SSC member, but as a NMFS member, to come up with something and work with the staff in the Regional Office in terms of regulations that would be required. I don't anticipate an amendment's going to happen real fast, but I know there's a lot of interest there and I think people will do it.

Mace: I'm sort of ouchy on approving plan amendments from the standpoint of workload and I think that before we get done with this session that we ought to have Steve tell us what he has on the plate and whether this is appropriate or not.

Pennoyer: Just as a follow-up comment. I think I was very clear in not promising a timetable on this, and if you need to know where we are, it's sort of like this for nearly everything, and so until we clear a few things off our plate nothing much is going to happen. What I said was, there was very high interest in this particular amendment. I don't know how much is involved in doing it and I think Rich and NMFS said that we would report back to you on how to do it. I know people want to get something like that on the dock.

Behnken: That's certainly consistent with my reason for making this motion. I know that it's nothing that's going to happen very quickly; it's something that needs to happen and will happen when the staff is available to start working on it. I just want to make sure it's set into motion; it's on our list, so that we are not in the same position two or three years from now.

Austin: I think probably the best argument in favor of the motion and would like to speak to that, and that is having the Council play back the record of the last two hours where we had to go through a lot of stress trying to deal with the fact that we didn't have the information that at least some of us judge as necessary to make a fully informed decision, so I think there's a little deja vu, even though I wasn't here in 1991, but we need not to get in this same trap in the future and we will be making additional socioeconomic judgements to allocate the resource.

Lauber: Is there any further discussion? Ready for the question? Is there any objection to the motion? Hearing none, it passes. I think, Mr. Austin, that you. . .sure you knowing the Council system that your desire, hope, is

commendable, but reality indicates that whatever Council does that, maybe we won't be around, we'll still find something to fuss about when all that data is in. The NOAA General Counsel has asked for some time to comment on something that came up earlier.

Lisa Lindeman: Just one brief comment. The legal opinion I gave on National Standard 4 and excessive shares and its relationship to inshore-offshore that I gave yesterday, I just wanted to let the Council know that I want to go back and re-look at that opinion and I can come back with a reassessment and a definite opinion in April. I'm not saying that the opinion will change, but I'm not wholly comfortable with it at this time, so I just wanted to let the Council know that that's what I'm going to do.

Lauber: O.K., thank you very much. All right, anything else under this agenda item? Now, we'll move on.