


MEMORANDUM

TO: Council, AP and SSC Members

FROM: Clarence G. Pautzke
Executive Director 

DATE: January 8, 1992

SUBJECT: North Pacific Fisheries Research Plan

ACTION REQUIRED

Receive progress report on further development of Research Plan and provide guidance as necessary. Consider releasing analysis for public review.

BACKGROUND

At the September 1991 meeting the Council voted to remand the draft North Pacific Fisheries Research Plan back to committee for further development. The additions requested by the Council included: (1) spelling out levels of and justifications for observer coverage, (2) methods of data input and transfer, (3) a plan for coordination and compatibility between the groundfish and shellfish portions of the Plan, (4) detailed budgets for the state and federal portions of the Plan, (5) estimates of the funds available under the 1% fee cap, (6) identification of shortfalls and potential methods to cover these shortfalls, and (7) potential methods to cover the up-front funding needed to kick off the program. The Council did not address the Research Plan agenda item in December, but scheduled it for discussion now.

The Research Plan Working Group, an agency technical team, met on October 28-29 in Juneau to coordinate revisions to the Plan. The primary work product available for Council review is the revised Framework for the Research Plan, dated January 3, 1992, which was mailed to you last week. It is included here as item C-3(a) and incorporates the provisions reviewed by the Council in September, provisions of a draft industry document circulated in September, and Council motions from the September meeting before the vote to remand the Plan back to NMFS for further development. These motions are shown in **bold print** in the Framework document.

The original March 1991 analysis of the Research Plan contained several options for specific provisions: identification of the fisheries from which fees would be collected; determination of the fee percentage; timing of fee collection; inclusions of discards and Donut Hole fisheries; start-up funding alternatives; and, methods to cover funding shortfalls. Since April, the Council has resolved many of these issues such that the current Framework document represents, in effect, the Council's Preferred Alternative for the Research Plan. There are some specific issues, listed below, which still require Council consideration. The Council needs to address these issues, review the Framework, and determine if it accurately reflects their intent for the Research Plan. Item C-3(b) is a letter from Tyson Vogeler containing suggestions for the Research Plan.

The analysis of the Research Plan needs to be revised to incorporate the specific provisions of this Framework. For example, the appropriate levels of observer coverage (to accomplish the stated goals of the Research Plan) are being analyzed using observer data gathered from the 1990 and 1991 Domestic Observer Program. In addition, budgets for the shellfish program are being developed. The revised analysis will replace the March 1991 version and will be available by mid-February.

By early March the analysis must be sent to public review if the Council wants to take final action in April. The Council can either authorize staff now to complete the analysis and release it to public review, or circulate the analysis to the SSC, AP, and Council and then approve it, perhaps using a special Council teleconference in late February. Actual implementation of the plan will depend on the mechanism approved by the Council to provide the necessary start-up funding for the program.

The Research Plan Working Group wishes to bring the following items to the Council's attention (please refer to Framework document):

- (1) Page 2: Regarding the role of the Oversight Committee, how extensive should it be?
- (2) Page 7, Section D.2: Agreement by the State of Alaska to obtain crab observers through the federal contracting process. This means that NMFS will be more directly involved in the operation of the shellfish portion of the program.
- (3) Page 8, Section E.4: This section deals with the timing of the annual determination of coverage levels and establishment of the fee percentage. Council needs to determine the appropriate schedule and the timing of Oversight Committee review.
- (4) Pages 10-11, Section F: Under 'Fee Collection', the Council needs to address the issue of a fisherman's liability in the event of processor default when the fisherman has already paid his fee.
- (5) Pages 11-13, Section G.1.a: This section discusses the probable shortfall associated with the 1% fee cap and the potential methods to cover this shortfall. Barring a considerable increase in the value of the harvest or an increase in the 1% cap, a supplemental observer program will be required to maintain current levels of observer coverage. Staff will provide further discussion of how this supplemental program could be merged with the Research Plan. Please note that the Advisory Panel in December passed a motion that no more than 1% fee on exvessel value should be collected and that NMFS should pay for any higher costs or the program should be scaled down.
- (6) Pages 13-14, Section G.1.b: This section discusses the issue of start-up funding and the balance required in the Observer Fund to keep the program afloat. In particular, the Council needs to be aware of the issues of the transition period and the timing associated with collection of fees versus use of those fees. Barring up-front, one-time funding by Congress, the program will require either (1)'double-taxing' of some segments of the industry for approximately six months, or (2) approximately two years of collection from those not currently required to carry observers, while maintaining the current Observer Program.
- (7) Page 14, Section G.3: Discusses issue of differential shortfalls between shellfish and groundfish program. Council needs to provide direction as to how to handle this issue.

January 3, 1992

OUTLINE FOR NORTH PACIFIC FISHERIES RESEARCH PLAN

INTRODUCTION

Section 313 of the Magnuson Fishery Conservation and Management Act authorizes the North Pacific Fishery Management Council (Council) to prepare, in consultation with the Secretary of Commerce (Secretary), a North Pacific Fisheries Research Plan (plan) for all fisheries under the Council's jurisdiction except salmon. The plan requires observers to be stationed on fishing vessels and on fish processors as appropriate to collect data necessary for the conservation, management, and scientific understanding of any fisheries under the Council's jurisdiction, including halibut, but excluding salmon. The plan also establishes a system of fees to pay for the costs of implementing the plan.

The plan is designed to gather reliable data, be fair and equitable to all vessels and processors, be consistent with applicable provisions of the law, and consider the operating requirements of the fisheries and the safety of observers and fishermen. Fees collected under the plan are limited in amount and their use and must be deposited in the North Pacific Fishery Observer Fund.

The plan also may establish a risk sharing pool to provide coverage for vessels and owners against liability from civil suits by observers. This pool, if proven feasible, must be established unless the Secretary determines that alternative comprehensive commercial insurance is available that will provide greater coverage at a lower cost to each participant.

This plan was developed in 1991 by the Council working closely with industry and the National Marine Fisheries Service (NMFS). It incorporates provisions of the Observer Plan developed for the groundfish fisheries in 1989 and implemented in 1990 and 1991, and revised to comply with Section 313. Provisions of the State of Alaska's observer program for crab are also incorporated into this plan. An observer program for halibut has been deemed unnecessary for safety reasons and because of adequate dockside monitoring.

OBSERVER PROGRAM

On November 1, 1989 the Secretary approved Amendments 13 and 18 to the groundfish fishery management plans for the Bering Sea/Aleutian Islands and the Gulf of Alaska. The implementing regulations were published as a final rule on December 6, 1989 (54 FR 50386). One measure authorized a comprehensive domestic fishery observer program. An Observer Plan to implement the program was prepared by the Secretary in consultation with the Council and implemented by NOAA, effective February 7, 1990 (55 FR 4839, February 12, 1990). In December 1990 the Council recommended changes to the Observer Plan which were approved by the Secretary and published as a final rule on July 8, 1991 (56 FR 30874).

The 1990 and 1991 Observer Plans required specific levels of observer coverage which varied with size of fishing vessel and quantity of fish processed by floating and shoreside processors. These requirements were established because it was recognized that living marine resources could not be effectively managed without the types of information that were either available only or most efficiently through an observer program.

The Observer Plans required that owners and operators of vessels and shoreside processing facilities participating in the groundfish fishery arrange for and pay for the cost of placing observers aboard their vessels and at their shoreside processing facilities beginning in January, 1990. The Observer Plans imposed responsibilities on NMFS, vessel operators, managers of shoreside processing facilities, and NMFS certified contractors who provide observers to groundfish fishing vessels and shoreside processors. The Observer Plans also prescribed observer conduct, conflict of interest standards for observers and contractors, and reasons for revoking contractor or observer certification. The 1991 Observer Plan changed observer requirements for shoreside processing facilities and for mothership processor vessels, authorized the release of observer-estimated bycatch rates as public information, and extended the certification time for observer contractors.

In April 1988, the Alaska Board of Fisheries adopted regulations requiring onboard observers for all vessels that process king crab and C. bairdi Tanner crab in the waters off Alaska. In 1990, this was expanded to include C. opilio Snow crab. The Mandatory Observer Program was adopted after the Board received ADF&G staff reports that indicated there was a large discrepancy between the harvests of catcher only vessels and catcher/processors. The Board concluded that the only way that the catches could differ so greatly was due to the processing of sub-legal crabs.

The North Pacific Fisheries Research Plan will supersede or integrate provisions from the 1991 Observer Plan as well as incorporate the State of Alaska shellfish observer program. The Research Plan will replace the Observer Plan and the Fishery Management Plans (FMPs) will be amended to reference the provisions of the Research Plan concerning observer requirements in the groundfish and crab fisheries. All specific details concerning observer requirements will be incorporated into the final draft of the Environmental Assessment/Regulatory Impact Review being prepared for the Research Plan.

Observer Plan Oversight Committee: A committee to provide advice to the Council and the Regional Director of NMFS on general provisions of the observer and fee portions of the North Pacific Fisheries Research Plan. This committee shall review reports required under the provisions of the Research Plan (Sections D, E, and G of the draft framework below) which are prepared by NMFS and ADF&G staff. This committee will not have oversight of the daily operations of the Research Plan. The chairman of the Council will appoint ten members to the committee. The Oversight Committee will include a Council member from each of the three states represented on the Council and seven industry representatives from the following groups: factory/trawler, catcher/trawler, shoreside processor, crabber, freezer/longliner, non-freezer/longliner, and crab catcher/processor.

<Council action from September 1991 meeting was to add a representative of crab catcher/processor operations>

DRAFT FRAMEWORK OF THE NORTH PACIFIC FISHERIES RESEARCH PLAN

A. Objectives:

1. To provide a framework for developing an observer program for the Alaska groundfish fishery which has the capability to perform inseason management, to accommodate status of stocks assessment and to provide accurate, real-time data of sufficient quality to implement an individual vessel incentive program.
2. To provide a framework for developing an observer program for Bering Sea/Aleutian Islands king and Tanner crab fisheries which accommodates inseason management needs, ensures management

compliance, and provides for the collection of biological and management data necessary to achieve the sustained yield of the crab resource without overfishing.

3. To ensure that the groundfish and crab observer programs are efficient and cost effective, that any increased costs are commensurate with the quality and usefulness of the data to be derived from any revisions to the programs, and that such changes are necessary to meet fishery management needs.
4. To provide for cooperation and coordination between the groundfish observer program administered by the NMFS and the crab observer program administered by the Alaska Department of Fish and Game (ADF&G).

B. Elements of the NMFS Groundfish Observer Program:

1. Level of coverage:

- a. Initial level of coverage shall be that of the current industry funded groundfish observer program.

Under the present industry funded program, all vessels 60 feet length overall (LOA) or greater must carry observers. All shore side plants, floating processors, and motherships must provide observers for any month in which they process 500 metric tons of groundfish or more. Though all vessels or processors who meet the minimum length or processing requirements must carry observers, the percent of time that an observer needs to be present varies by size of vessel or monthly processing activity. Present levels of coverage are: 100% for vessels 125 feet length overall (LOA) and larger and shore plants, floating processors and motherships which process 1,000 mt or more in a month; 30% for vessels 60 to 125 feet LOA and shore plants, floating processors and motherships which process 500 mt to 1,000 mt in a month.

The Research Plan calls for evaluation of current levels of observer coverage in relation to the goals and objectives of the program stated in Section A. An analysis of the observer data collected from the 1990 and 1991 observer programs is necessary to ascertain appropriate levels of coverage. Initial analysis of these data in relation to requirements for vessel incentive programs and other objectives requiring data on or management of individual vessels has shown that coverage of all vessels is required. Work to determine what a statistically reliable sample of vessels would be for other objectives of the program is in progress.

- b. **Changes** to the existing groundfish observer program to improve the accuracy and availability of observer data may be implemented by the Alaska Regional Director (NMFS) upon recommendation by the Council based on one or more of the following:

- (i) a finding that there has been, or is likely to be, a significant change in fishing methods, times, or areas for a specific fishery or fleet component;
- (ii) a finding that there has been, or is likely to be, a significant change in catch or bycatch composition for a specific fishery or fleet component;

- (iii) a finding that modifications to the observer program are warranted to improve data quality and availability necessary to implement an individual vessel incentive program for a specific fishery or fleet component.
- (iv) a finding that such modifications are necessary to improve data availability or quality in order to meet specific fishery management objectives.
- (v) a determination that any increased costs are commensurate with the quality and usefulness of the data to be derived from any revised program, and are necessary to meet fishery management needs.

2. Observer employment and contracts:

- a. Observers will be either employees of NMFS, or be under contract to NMFS.
- b. Observer contracts will be subject to a competitive bid process and will comply with federal and/or agency procurement regulations. If in accordance with procurement regulations, and if cost effective, multiple contractors will be used.

[Council action on this point from the September 1991 meeting: to put contracts out in 'lots'; i.e., a competitive bid process ...intent was to make sure that at least 3 observer companies would be involved in supplying observers.]

- c. Observer deployment shall be determined by NMFS.
- d. Observers must possess the education and specific training necessary to meet the requirements of the groundfish observer program.

3. Duties of observers:

- a. collect data on catch, effort, bycatch, and discards of finfish and shellfish, including PSCs, and transmit required data to facilitate in-season management.
- b. collect biological samples which may be used to determine species, length, weight, age and sex composition of catch and predator prey interactions;
- c. collect data on incidental take of marine mammals, seabirds, and other species as appropriate;
- d. other duties as described in the NMFS observer manual.

4. Data collection, transmission, and input programs shall be implemented according to the following:

- a. initial implementation shall be as specified under existing regulations and guidelines;
- b. the Regional Director, NMFS Alaska Region, shall review fishery monitoring programs and report to the Council on methods to improve data collection and sampling techniques, provide for real time data transmission from the fleet including daily reporting, and other measures as appropriate to improve the accuracy and efficiency of fishery monitoring programs.

5. NMFS's detailed budget for implementing the groundfish observer program including:
- (i) costs for observer training and certification;
 - (ii) costs for stationing observers on board fishing vessels and United States fish processors, including travel, salaries, benefits, insurance;
 - (iii) costs for data collection, transmission, and input;
 - (iv) contract services and general administrative costs.

C. Elements of the ADF&G Crab Observer Program:

1. Level of Coverage:
- a. Initial levels of observer coverage under the North Pacific Fisheries Research Plan shall be that of the existing industry funded crab observer program.
 - i. Presently 100% of all catcher/processors and floating processors are required to have an onboard observer to engage in the BS/AI crab fisheries.
 - ii. ADF&G traditionally collected essential biological and management data at the point of shoreside landing immediately before processing. The rapid evolution to processing by catcher/processor and floating processor vessels in particular shellfish fisheries seriously eroded the department's ability to adequately monitor harvests to ensure sustained yield without overfishing. Onboard observers supply two critical functions, without which offshore processing would not be allowed.
 - They are the only practical data gathering mechanism which would not disrupt processing.
 - They provide the only effective means to ensure management compliance.
 - b. Pursuant to the Bering Sea and Aleutian Islands king and Tanner Crab FMP, the State of Alaska crab observer program has been designed by the Alaska Board of Fish and administered by the Alaska Department of Fish and Game. Future modifications to the crab observer program will be made through the board process, under general oversight of the Council, in accordance with the king and Tanner crab FMP.
2. Observer employment and contracts:
- a. Observers will be either employees of ADF&G, or be under contract to NMFS.
 - b. Observers for the Shellfish Observer Program obtained from contractors will be obtained through the NMFS observer contracts. Observer contracts will be subject to a competitive bid process and will comply with federal and/or agency procurement regulations. If in accordance with procurement regulations, and if cost effective, multiple contractors will be used.

[Council action on this point from September 1991 meeting: to put contracts out in 'lots'; i.e., a competitive bid process... intent was to make sure that at least 3 observer companies would be involved in supplying observers.]

- c. Observer deployment shall be determined by ADF&G.
 - d. Observers will possess the education and specific training necessary to meet the requirements of the crab observer program.
3. Duties of observers:
- a. collect data on catch, effort, bycatch and discards of finfish and shellfish, and transmit required data to facilitate inseason management;
 - b. collect biological samples which may be used to determine species, length, weight, age and sex composition of catch;
 - c. collect data on marine mammals, seabirds, and other species as appropriate;
 - d. other duties as described in the ADF&G observer manual.
4. Data collection, transmission, and input programs shall be implemented according to the following:
- a. initial implementation shall be as specified under existing regulations and guidelines to facilitate inseason management at the Dutch Harbor and Kodiak offices;
 - b. ADF&G shall review their fishery monitoring and data transmission programs in conjunction with the NMFS, to help develop coordinated methods to improve data collection and sampling techniques, provide for real time data transmission from the fleet including daily reporting, and other measures as appropriate to improve the accuracy and efficiency of fishery monitoring programs and improve coordination between agencies.
5. ADF&G's detailed budget for implementing the crab observer program including:
- (i) costs for observer training and certification;
 - (ii) costs for stationing observers on board crab catcher/processors, United States crab floating processors, and shoreside observers/debriefers, including travel, salaries, benefits, insurance;
 - (iii) costs for data collection, transmission, and input;
 - (iv) contract services and general administrative costs.

D. Coordination Between the NMFS Groundfish Program and the ADF&G Crab Observer Program:

1. Recognizing the differences in the missions between the ADF&G crab observer program and the NMFS groundfish observer program, but wishing to provide for the maximum efficiency in administration and implementation of the groundfish and crab observer programs, NMFS and

ADF&G will form a work group to address the following:

- a. to the extent possible and practicable, development of consistent, cost effective, and compatible observer training and debriefing procedures.
 - b. development of a consistent data collection, transmission and processing system including a single data base available to both agencies on a real-time basis.
 - c. identification of costs which are appropriate for reimbursement to the State pursuant to the MFCMA.
2. On an annual basis, NMFS and ADF&G will provide to the Council a report detailing steps taken to improve overall coordination between the two observer programs and to improve administrative efficiency.

Staff from the NMFS, ADF&G, and the NPFMC met in Juneau, Alaska on October 28-29, 1991, to discuss NPFMC's request for the development of a revised Research Plan. As part of those discussions, the staff from both agencies discussed the coordination between the NMFS Groundfish Observer Program and the ADF&G Crab Observer Program. A result of those discussions was agreement to look at the feasibility of obtaining the crab observers through the same federal contracts that will be used to obtain groundfish observers for NMFS. The benefits of this action include a reduction in the amount of time and money spent to go through a procurement process since this will only be done one time for both programs; use of the same contractors should result in observers for both programs being hired from the same general pool of observers and thus, more observers with dual certification; and, a more effective use of available observers by the contractors since they will be able to provide observers for both programs.

Agreement to cooperate on this issue means that NMFS will become more directly involved in the operation of the crab program since the contractors and observers will be under contract to NMFS. It also means that there will be some limitations placed on ADF&G in their management of the program since they will not have direct control of the contractors providing observers for their program. As a result, there will have to be an increased level of cooperation and communication between NMFS and ADF&G to make the program work.

Coordination of observer training, debriefing, and data management for both programs was also discussed. Though immediate changes in either program did not seem practical (except for consolidation of the contracting for observers), it was decided that the respective staff from both programs should meet in the future to explore what other cooperative measures might be able to be accomplished.

E. Fee Assessment:

The North Pacific Fisheries Research Plan fee assessment program will be based on the following:

1. Fisheries subject to fee assessment;
 - a. Gulf of Alaska groundfish.
 - b. Bering Sea and Aleutian Islands groundfish
 - c. North Pacific halibut
 - d. Bering Sea and Aleutian Island king and Tanner crab

2. Fees will be assessed at up to 1% of ex-vessel value of fish and crab harvested in the fisheries identified above, before any processing occurs. Though the potential maximum fee is prescribed by the Magnuson Act, the actual maximum for any given year may be less after determining the cost of the Plan and after deducting funds from other sources, if required (discussed below).
3. Fees from the program may only be used to pay for: (1) stationing observers including the direct costs of training, placing, maintaining, and debriefing observers; (2) collecting, verifying, and entering collected data (not manipulating data); (3) supporting an insurance risk-sharing pool; and (4) paying the salaries of personnel to perform these tasks. The fees cannot be used to pay administrative overhead or other costs not directly incurred in carrying out the Plan, or to offset amounts authorized under other provisions of law.
4. Annually the Regional Director, in consultation with the Council, will establish a fee percentage taking into account the ex-vessel value of the plan fisheries, the costs of implementing the Plan, other sources of funds, and limitations on the total amount that can be collected. This will be done concurrent with Council review of observer needs of the fisheries. This annual process will be completed by the time the fisheries commence. The fee will be expressed as a percentage of the exvessel value of the fisheries.

[Council had adopted a motion in September to title this section "Annual determination of observer needs and setting of the fee percentage" and would read "Establish an annual process whereby the Council would receive recommendations on modification of observer coverage level at September meeting each year and concurrently determine the anticipated fees for the next year, send out for public review, and take action at the December meeting"]

- a. The Chairman of the Council shall establish the Observer Plan Oversight Committee, identified earlier in this outline, to provide the Council with an independent review of the budget and implementing measures for the observer program and fee assessment system.
 - b. The reports and budget documents outlined above shall be provided annually to the Council a month prior to its June meeting. The Oversight Committee shall review the documents under Sections E and G and provide a recommendation to the Council at the June meeting. The Council will review the Committee's recommendation and take final action in September.
5. All plan fisheries will contribute to the total exvessel value of the fisheries; NMFS, in consultation with the Council, will use the best information available to project the exvessel value of fisheries. The factors that will be taken into account include but are not limited to: average prices for species or species groups, product forms, discards, and other factors during the year preceding the year for which the fee is being established, anticipated changes in the coming year, and projected catch based on expected harvest in plan fisheries. These projected values will be subjected to public review. Initial estimates are shown below:

<u>FISHERY</u>	<u>1991 EX-VESSEL VALUE (\$ millions)</u>	<u>1% FEE VALUE (\$ millions)</u>
GOA/BSA Groundfish	\$518.2	\$5.18
GOA/BSA Halibut	67.7	0.68
BSAI king and Tanner Crab	<u>292.1</u>	<u>2.92</u>
Totals	\$878.0	\$8.78

EX-VESSEL VALUE FOR 1991 BY FISHERY (\$ millions)

	metric tons	\$/lb	Value (\$ millions)
<u>BSAI & GOA Groundfish</u>			
Pollock	1,284,601	\$0.090	\$255
Pacific cod	251,809	0.228	127
Rockfish	23,247	0.246	13
Flatfish	152,298	0.151	51
Sablefish	28,263	1.000	62
Atka mackerel	25,740	0.133	8
Other	<u>6,347</u>	<u>0.220</u>	<u>3</u>
Subtotal	1,772,304	0.133	\$518

	Pounds (millions)	\$/lb	Value (\$ millions)
<u>BSAI King & Tanner Crab</u>			
Red king crab	17.5	\$3.00	\$52.5
Blue king crab	3.4	2.80	9.5
Golden king crab	6.8	2.80	19.0
Tanner crab (bairdi)	36.0	1.30	46.8
Tanner crab (opilio)	<u>328.6</u>	<u>0.50</u>	<u>164.3</u>
Subtotal	392.3	-	\$292.1

BSAI & GOA Halibut 40.08 \$1.69 \$68.0

BSAI & GOA Other Shellfish \$13.0

BSAI & GOA Herring 113.7 \$0.24 \$27.2

Total Value \$918.3

The estimated groundfish prices and weights are preliminary PacFIN values as of 12/31/91.

The BSAI crab and BSAI & GOA herring projections are preliminary 1991 values as of 12/30/91.

The halibut catch figures are preliminary values as of 12/30/91. The halibut price is found by multiplying the landed dressed product price by the product recovery rate (\$2.15 x 0.75) to give a value of \$1.69 per pound.

6. NMFS, with the assistance of ADF&G, will provide an estimate of the costs of providing required observer coverage for the groundfish and shellfish programs for the coming year based on anticipated observer coverage and the anticipated costs of the activities listed under Item E.3 above, including any additional costs of utilizing observers.
7. NMFS will provide an estimate of surplus funds in the North Pacific Observer Fund and estimate the amounts of funds that may be available from other sources.
8. The fees shall be set such that the total amount of fees collected are not expected to exceed the limitation prescribed by the Magnuson Act.
9. The user fee percentage for the coming year will be the total amount to be collected divided by the exvessel value of the plan fisheries, multiplied by 100. This fee will be established before the fishing year to which it will apply. It will be subject to Council and public review before being finalized.
10. The Research Plan would initially be implemented without the inclusion of the fee against discards. At such time as a methodology for accurately assessing appropriate discards, amounts of discards, and associated values of discards is devised, the NMFS Regional Director, with the recommendation of the Council will include those discards not required by specific state or federal fishery management regulations, under the fee assessment program.

[This is consistent with Council action from the September 1991 Council meeting.]

11. The State of Alaska will be reimbursed for all of the costs of the crab observer program which are allowable under the MFCMA from fees collected under the North Pacific Fisheries Research Plan, consistent with C.1 above.

F. Fee Collection

Although fees are assessed against all fishing vessels and fish processors, they are collected from fish processors participating in plan fisheries. Fish processors are defined in the Magnuson Act; however, their operating characteristics fall into one of two categories. Processors are in Category A when they purchase unprocessed fish, that is when there is a documented commercial transaction between independent parties. Processors are in Category B when they obtain fish without such a transaction. For purposes of collecting fees, harvesting vessels are considered Category A processors when they sell directly to any entity other than a federally permitted processor under this plan.

1. **Estimation of exvessel prices and fee liability**
 - a. **Category A Processors:** It is assumed that these processors weigh or otherwise directly determine the amount of all fish delivered. Their fee liability is the product of the fee percentage established by NMFS for the fishing year, actual exvessel price paid to the fisherman, and the amount of fish received. In addition, fees will be required on discards as described above. Fee liability will be divided equally between the processor and fisherman.
 - b. **Category B Processors:** If these processors weigh or otherwise directly determine the amount of their catch, then those documented amounts will be used to estimate fee

liability. Otherwise, product recovery rates published by NMFS will be used to estimate retained catch. Their fee liability is the product of the fee percentage established by NMFS for the fishing year, an exvessel price as estimated and published by NMFS, and the estimated retained catch. The price estimates provided by NMFS will be based on price data from Category A Processors, taking into consideration the species mix, quarter of the year, area, and other appropriate factors. In addition, fees will be required on discards as described above.

2. Fee payments will be made quarterly within 30 days of the end of the quarter to the NOAA Office of the Comptroller to be deposited in the North Pacific Observer Fund within the U.S. Treasury. The fee will be documented in a manner prescribed by NMFS. When new information becomes available to a processor concerning exvessel value of fish it received from plan fisheries during previous quarters, it will recalculate its fee liability for those quarters. It will claim any overpayment as a credit on its next quarterly payment and it will add any underpayment to its next quarterly payment.
3. All processors as defined under Item F(1) above must have a federal permit to receive fish from plan fisheries. Processors must apply for these permits annually by the deadline prescribed by the Regional Director. Permits will be issued annually on January 1 and renewed semi-annually on July 1 to those processors whose fee payments are current. The NOAA Office of the Comptroller shall assess late charges for underpayment or late payments of fees.

G. North Pacific Fisheries Research Plan Implementation Analysis:

1. NMFS and ADF&G will provide to the Council a report with the following information:
 - a. As required under Section E.4, the costs of the groundfish and crab observer programs and the funds expected to be available under the 1% fee assessment program will be provided. This will include an estimate of the costs of providing required observer coverage for the coming year based on anticipated observer coverage and the anticipated costs of the activities listed under Item E.3 above, including any additional costs of utilizing contractors. The report will assume full funding of the existing ADF&G crab observer program as well as full funding of the existing groundfish observer program, and will identify the total amount of any shortfall of funds.

The estimated cost to carry out the groundfish portion of the Research Plan, based on current levels of observer coverage and 1992 cost projections, is \$9.06 million as detailed in Table 1 attached. This cost figure consists of \$1.635 million in administrative and operational costs for the Alaska Fisheries Science Center (AFSC) and \$.132 million in administrative and operational costs for NMFS Alaska Regional Office. These costs are detailed in Table 2 attached. Another \$7.29 million is budgeted for direct costs of hiring and placing observers. A detailed breakdown of the direct costs of this observer coverage is provided in Table 3 attached, which includes the cost per observer month of both 100% and 30% coverage vessels. These figures are based on 1992 cost projections.

The shellfish portion of the program is currently estimated to total an additional \$2.5 million in costs, again based on 1992 cost projections, of which \$2.2 million is the direct cost of hiring and placing observers and \$.3 million is administrative and operational costs. The total cost of the combined groundfish and shellfish program is, therefore, \$11.56 million.

Estimated federal funding for the program is currently \$1.35 million, which is then subtracted from the total cost figure of \$11.56 million to arrive at a recoverable cost figure of \$10.21 million. This is the amount of cost which the Research Plan allows to be recovered through the 1% fee. The total amount of fees collectable under the 1% fee cap (based on most recent landings and value estimates from the 1991 fisheries and summarized on pages 9 and 10) is \$8.78 million. Subtracting this from the total recoverable cost estimate of \$10.21 million results in a funding shortfall of \$1.43 million. The procedure for arriving at this figure is summarized below:

Estimated Cost of Groundfish Program	\$ 9.06	million
Estimated Cost of Shellfish Program	+ 2.50	million
Total Cost	11.56	million
Less Federal Funding	- 1.35	million
Recoverable Cost	10.21	million
Estimated Revenue from 1% Fee	- 8.78	million
Estimated Shortfall	<u>\$ 1.43</u>	million

In the event that the recoverable cost estimate had been lower than the expected revenue from the 1% fee (lower than \$8.78 million), then the fee assessed would be adjusted downward from the 1% maximum prescribed under the Research Plan.

There is an important note to be made regarding the initial estimates described above. The \$8.78 million expected revenue is based primarily on two factors: (1) best available information on product value and (2) latest current information on catch from the 1991 fisheries. In practice, the Research Plan framework calls for estimation of the fee value based on anticipated catch in the upcoming fishing year. In this case, that would mean using 1992 projected harvest as opposed to 1991 harvest. At this point however, the harvest data from 1991 is considered the best information upon which to base the estimate; the final analysis (EA/RIR/IRFA) will contain a revised estimate of the expected revenue (and expected shortfall) based on anticipated 1992 harvests. At this time it is not expected to vary greatly from the estimate provided here.

- b. A report will be provided which outlines options for maintaining current levels of observer coverage in the event of a funding shortfall, including options for utilizing elements of the existing industry funded programs in a fair and equitable manner, and a discussion of time needed to capitalize fund or need for start-up funds to implement programs. Under the North Pacific Fisheries Research Plan a supplemental observer program will be required if the amount of money collected through the fees is insufficient to fund the required levels of observer coverage. This situation could occur and be identified through the annual process of determining the program cost and setting of the fee or it could occur during the fishing year if the actual ex-vessel prices paid for fish and shellfish were less than those projected. If it is important for the Council and agencies involved to maintain their designated levels of observer coverage, a supplemental program where the unfunded portions of the program are paid for by industry would be required.

The supplemental program would be similar to the program now in place for the groundfish and crab programs where industry pays for the cost of the observers directly to observer contractors. Unlike the present programs, though, a supplemental program could be structured in a way which would minimize the problems experienced under the current programs. This could be done by structuring the program so that only those contractors holding a federal government contract for observers for these fisheries could be used; requiring that placement and deployment of observers

be controlled by NMFS and ADF&G as done under the government contracted portion of the program; limiting the cost of observers to vessel and processor owners to the same as was set in the government contracts; and, requiring that a copy of all invoices and transactions between the contractors and owners be submitted to the government as part of their oversight of the program.

The most difficult part of a supplemental program under the proposed Research Plan is determining the segments of the industry that would pay and how the program would be integrated into the Research Plan's fee program during the year. As far as who pays, it appears that the only alternative would be for those required to carry the observers to pay for the unfunded portion of required observer time. Since payment of fees would occur on a quarterly basis, the supplemental program would have to be utilized on a quarterly basis to cover the unfunded portion of costs for that quarter. Essentially all vessels and plants carrying observers during the quarter would have to fund that portion of their observer costs not covered by the collection of fees.

The only alternative option to the inclusion of a requirement for a supplementary program in the event of insufficient funding, is to reduce the observer coverage provided in the groundfish program. ADF&G has indicated that change in the mandatory levels of coverage is not an option in the crab program. This would have to be done prior to the start of a fishing year if projections show that there will be insufficient funding or would have to be done in-season if collections fell short of projections. If this alternative is chosen, both the Council and NMFS will be required to continuously determine if observer coverage needs to be modified to remain within the levels of collected fees.

Start-up Funding and Required Balance in Observer Fund:

As the Council considers the issues of a supplementary program and start-up funding for the Research Plan, they need to consider the timing in availability of funds that will result from the alternatives they have chosen as compared to the timing in availability of funds required by the agencies to implement and carry out the observer programs covered under the Research Plan. To this point, the Council has chosen a preferred alternative that requires payment of fees on a quarterly basis 30 days after each quarter is completed.

The agencies responsible for providing the observer coverage cannot spend or obligate the expenditure of funds that they do not yet have. This means that the funding necessary to cover agency observer program staff and contract observer trips for a quarter must be on deposit in the Observer Fund in the U.S. Treasury well before the start of the quarter. With a program where fees are paid after the fishery has taken place, yet the observer coverage must be made available at the time of the fishery, funds to cover six months of program operation will have to be on deposit and available at all times or the agencies will not be able to provide the required services.

Unless Congress provides a start-up appropriation of at least one-half or six months of the first year's program cost, the Council must provide a mechanism to build up the money on deposit in the Observer Fund. Two options have been presented to accomplish this. The first is to maintain the existing groundfish and crab programs while collecting fees from those segments of the fisheries covered by the Research Plan but who are not currently required to carry and pay for observers. The second option is to require payment of fees from everyone covered by the plan, including those already paying for observers, until a balance of six months of funding is achieved. The advantage of the first option is that those now paying for observers would not be paying double at one time but the disadvantage is the length of time taken to accumulate the required balance in the Observer Fund. This was estimated to take over two years since most of the value

of the groundfish and crab fisheries are already covered by observers which the industry pays for. The advantage of the second option is that the needed capital in the Observer Fund could be achieved within seven months but those already paying for observers during this period would be required to pay double.

With whatever option is chosen by the Council, the difficulties associated with the flow and availability of funds must be kept in mind and understood. One option available to the Council which would resolve both the start-up funding problem and short-fall problem would be to approve a Research Plan but stipulate within the Plan that it would not be implemented until the needed Congressional action was taken to increase the 1% cap on fees and an appropriation for the needed start-up funds. In the interim, the current groundfish and crab programs would remain in effect.

2. For 1992, the NMFS and ADF&G will have the reports required under Sections D, E, and G available to the Council in time for review and action at the April 1992 meeting.
3. One of the issues raised in public comment on the proposed Research Plan at the Council's September 1991 meeting was the question of what percentage of the fees collected from the crab fishery, in excess of those needed for the shellfish program, should be used to support the groundfish program. It is possible that the reverse situation could also occur with the groundfish fishery supporting the shellfish program at some point in time due to the fluctuating nature of harvest levels, prices, and other factors. For example, options to reconcile this issue include: (1) guarantee funding from the fee program to support current levels of coverage in the shellfish program. This option would put the entire burden of shortfall funding on the groundfish portion of the observer program; supplemental observer program costs would be borne entirely by vessels participating in the groundfish fisheries. (2) all funds collected under the 1% fee cap would be pooled for the overall groundfish and shellfish program and then disbursed proportionally. Under this option, the funding shortfall would be spread proportionally across both the groundfish and shellfish programs; this would likely require a supplemental observer program for the shellfish portion of the program as well as the groundfish portion in order to maintain current levels of observer coverage in the shellfish program.
4. The NMFS and ADF&G will develop a report for the Council regarding implementing the North Pacific Fisheries Research Plan, including a schedule for fee collection and conversion from the present industry funded programs.
5. Schedule for completion of redraft of research plan, review and consideration by Council, and implementation of approved program.

January 1992 Council reviews (and releases for public review) new redraft of Research Plan which includes instructions from September 1991 meeting and December 1991 meeting.

April 1992 Council takes final action on Research Plan.

May 30, 1992 Submit Plan to Secretary; develop proposed regulations (has 60 days)

July 30, 1992 Proposed rule published for 60 day comment period and 3 public hearings.

September 30, 1992 Comment period ends; begin 45 day response period and consultation with Council.

November 15, 1992 Publish final rulemaking.

January 1, 1993 Implement program.

Note: Contracting process has started; Draft Statement of Work and Solicitation Notice will be available for Council and public review in January.

TABLE 1. Estimated Budget for Domestic Groundfish Observer Program (\$1,000's)
 (Based on 1992 Cost Projections)

A. NMFS Operational Budget for Training, Debriefing and Data Management (AFSC) (refer to Table 2 for details):	\$1,635.0
B. Direct Cost of Hiring and Placement of Observers Estimated Required Observer Effort (Based on 1990 Log Book Data):	
A. 100% Vessels, motherships, & processors:	775 months
B. 30% Vessels, motherships, & processors:	215 months
C. Total estimated effort needed:	990 months
Estimated Cost Per Observer Month (See Table 3 for details):	
A. 100% Coverage: 775 mo. X \$7,080/mo. =	\$5,487.0
B. 30% Coverage: 215 mo. X \$8,388/mo. =	\$1,803.4
C. Total Estimated Cost:	\$7,290.4
C. Other NMFS Observer Program Costs NMFS Alaska Region (see Table 2)	\$ 132.2
D. Total Estimated Cost of 1992 Program:	\$9,057.6

TABLE 2. Estimated agency costs (\$1,000's) for domestic groundfish observer program for Alaska Fisheries Science Center and Alaska Regional Office (Based on 1992 Cost Projections)

PROGRAM ELEMENTS

COST ELEMENTS	PROGRAM OPERATIONS				TOTAL	PROGRAM OPERATIONS (REGION)
	(AFSC)	TRAINING	DEBRIEFING	DATA MGMT.		
LABOR	\$ 191.6	\$ 140.6	\$ 216.6	\$ 333.7	\$882.5	\$68.5
BENEFITS	35.9	26.4	40.6	62.6	165.5	29.3
OTHER COMPENSATION	0.0	5.0	42.0	20.0	67.0	
TRAVEL	40.0	-	-	-	40.0	5.0
TRANSPORTATION	0.0	5.0	-	-	5.0	-
RENTS/COMMUN./UTILITIES	75.0	-	-	-	75.0	14.4
PRINTING	-	15.0	-	-	15.0	-
CONTRACTS	40.0	40.0	-	90.0	170.0	-
SUPPLIES/EQUIPMENT	-	215.0	-	-	215.0	15.0
OTHER	-	-	-	-	0.0	
TOTAL	\$ 382.5	\$ 447.0	\$ 299.1	\$ 506.3	<u>\$1,635.0</u>	<u>\$132.2</u>

**TABLE 3. Estimated average costs per observer month for domestic groundfish observers in Alaska.
(Based on 1992 Cost Projections)**

Average Observer Costs - 3 Month Deployment

<u>Cost Item</u>	<u>100% Vessels Cost/Month</u>	<u>30% Vessels Cost/Month</u>
Observer Salaries ¹	\$3,535	\$3,535
Benefits (12.6%)	445	445
Insurance (30%)	<u>1,060</u>	<u>1,060</u>
Sub-Total cost	\$5,040	\$5,040
Travel		
Air fare ²	\$ 400	\$ 400
Per diem ³	242	1,305
Excess bag	50	50
Physical exam	22	22
Contract + Overhead (%) ⁴	863	1,022
Serv.		
Fee	463	549
TOTAL	<u>\$7,080</u>	<u>\$8,388</u>

ESTIMATED NUMBER OF OBSERVER MONTHS REQUIRED: 990 MONTHS

ESTIMATED COST 100% OBSERVERS: 775 MONTHS x \$/MONTH = \$5,487,000
ESTIMATED COST 30% OBSERVERS: 215 MONTHS x \$/MONTH = \$1,803,420

¹Average observer salary per month is prorated to include training and debriefing time.

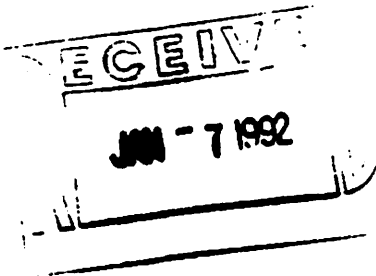
²Use of standard round trip air fare, for example Seattle to Dutch Harbor which is about \$1,200.

³Use of standard government per diem rates for same port of deployment as airfare was selected.

⁴Includes contractors direct staff costs, etc..

TABLE 4. Estimated NMFS Enforcement costs (\$1,000's) for implementation and annual operation of North Pacific Fisheries Research Plan. These costs would not be covered through collection of fees under the Research Plan. (Based on 1992 Cost Projections)

COST ELEMENTS	ESTIMATED COST (3 Agents)
LABOR, BENEFITS, COLA	\$300.0
TRAVEL	-
TRANSPORTATION	-
RENTS/COMMUN./ UTILITIES	-
PRINTING	-
CONTRACTS	-
SUPPLIES/ EQUIPMENT	-
OTHER	-
TOTAL	<u>\$300.0</u>



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5 January 1992

Chairman Richard B. Lauber
North Pacific Fishery Management Council
605 West 4th Avenue
Anchorage, Alaska 99501

Dear Chairman Lauber:

In addition to closely following the ongoing development of observer programs in Alaska, I have reviewed and discussed in detail, with others in the industry, both the Outline for the North Pacific Fisheries Research Plan and the draft solicitation of bids for provision of observers under the Plan. I personally have a wealth of experience with North Pacific observer programs including training of both shellfish and groundfish observers, coordination of observer programs, observer contracting, commercial fishing and at-sea sampling experience. Based on this spectrum of experience and my discussions with others, I suggest the Council address and consider the following points:

1. **Transient Professionals:** The design of the Observer Program and the nature of the fisheries observed encourages a transient workforce. Most observers stay with the Program less than a year. By testimony of the responsibilities placed on observers and the importance of their work, and further by the educational requirements set forth for observer trainees, a Fisheries Observer is a professional, equivalent to a GS-5 or GS-7 Fisheries Biologist. Term contracts for observers, of six to 12 months with scheduled time off, would encourage the development of a corps of professional, competent, and readily deployable observers. (The need would continue to exist for some short-term observer assignments in addition to the corps.) The benefits to the Program would be increased quality and reliability of the data, the ability to rapidly respond to changing observer needs, and the potential for increased cost effectiveness due to reduced turnover. Requirements for developing a corps of experienced observers, through long-term contracts, could easily be incorporated into the plan or the RFP issued by the NMFS.

2. **Standardized Observer Salaries and Contracts:** Under the current system, observer contractors each pay different salaries to their employees. Some contractors provide transportation to the site of training and living expenses during the training period; others do not. Salary levels and provision of all job-related travel and per diem should be stipulated in the

solicitation for bids for provision of observers. Considering the nature and importance of the work done by observers, a salary level equivalent to that of an entry-level Fisheries Biologist is justifiable and reasonable. In no case should salary levels be allowed to fall below their current level if the Program expects to attract and retain professional calibre observers. I encourage the Council to set minimum salary levels for observers based on the average number of hours worked per week and a wage corresponding to the duties and responsibilities of the position. Transportation from a person's home to the worksite is a usual expense paid by the employer for term positions such as those of the Observer Program, provided contract obligations are fulfilled. To serve the purpose of standardizing transportation for observers, I suggest that the point of hire be their home rather than Seattle.

3. **Provision of Insurance:** Observers work in a dangerous environment and are likely to be injured while on the job. Some contractors, however, carry only protection and indemnity insurance and fail to provide worker's compensation coverage while observer's are deployed at sea. All observer contractors should be required to provide full worker's compensation coverage during the observer's entire assignment. This should include Alaska worker's compensation which (unlike other states) covers observers while at sea, since these are professional positions which do not fall under the Jones Act. The requirements for insurance coverage could be stipulated in the solicitation for provision of observers.

4. **Observer Plan Oversight Committee:** The composition of the Oversight Committee overlooks two very important segments of the observer industry which could contribute valuable insight into the operations of the Program. Both the observer contracting companies and the observers themselves should be represented on this committee.

Thank you for the opportunity to present these comments on the Observer Plan.

Sincerely,



Tyson James Vogeler

Analysis of Levels of Observer Coverage

Prepared by

Russ Nelson and Russ Kappenman

Division of Resource Ecology and Fishery Management
Alaska Fisheries Science Center
National Marine Fisheries Service
7600 Sand Point Wy. NE
Seattle, WA

January, 1992

Analysis of Levels of Observer Coverage

The National Marine Fisheries Service and the North Pacific Fishery Management Council have identified three primary objectives for the domestic groundfish observer program. The three objectives are contained within the Draft Outline/Framework for the North Pacific Fisheries Research Plan submitted to the Council for its consideration at the January, 1992 meeting. The primary objectives of the program are to collect data from the groundfish fishery:

1. to perform in-season management of the fishery through estimation of catches of groundfish, prohibited species and marine mammals;
2. to estimate bycatch rates of individual vessels for the implementation of individual vessel incentive programs; and,
3. to accommodate assessments of the status of stocks.

To date, the focus of the analyses of domestic observer data to determine appropriate levels of observer sampling (or coverage) has been to address objectives 1 and 2; estimation of catches for in-season management and implementation of vessel incentive programs. All indications are that the levels of coverage required to carry out either one of these two objectives will provide the opportunity to collect the data needed to support the stock assessments objective of the program.

Under the current domestic observer program, vessels from 60 feet length overall (LOA) up to 125 feet LOA are required to carry an observer on 30% of their days during fishing trips in each calendar quarter of the year in which they fish more than 10 days. In an attempt to determine whether 30% is an acceptable level of coverage, some of the 1991 domestic observer data were analyzed. Halibut catches were estimated from these data using various sampling levels or levels of coverage. The methods used to conduct the analysis and estimate catches of halibut are provided in the attached description of the methods used by Dr. Russell Kappenman. This analysis concluded that greater than 90% observer coverage was needed to insure that 90% of the time subsampled based bycatch estimates differed from the full data based bycatch estimates by less than 10%. Though this analysis was not extended to other species, it is expected that the results would be similar.

In 1991, an individual vessel incentive program was implemented for three target fisheries in the Bering Sea/Aleutian Islands and two fisheries in the Gulf of Alaska. Analysis of data associated with potential violations of the vessel incentive program have been conducted throughout the last half on 1991 and are continuing in 1992. These analyses have shown that essentially 100% observer coverage is needed to obtain sufficient numbers of samples to

estimate a bycatch rate for a vessel and a valid confidence limit. A technical description of the procedures used is currently being written.

As a result of the above analyses, the recommended level of observer coverage to achieve two of the three primary objectives of the groundfish program is 100%. The sampling requirements of the third objective would be achieved if the needs for estimating catches and incentive programs are met.

However, there are other considerations which affect whether or not the desired level of 100% can be achieved. One consideration is the size of a vessel and its ability to accommodate an observer. Under the current program, vessels under 60 feet LOA are not required to meet mandatory levels of coverage because of their small size and the small proportion of the total groundfish catch taken by that segment of the fleet. The size of the vessel is also associated with safety of the crew and observer and operational aspects of the vessels and their fisheries which create practical problems in achieving observer coverage. Vessels from 60 feet LOA up to 125 feet LOA are required to have 30% coverage. This decision was made because of considerations for cost of observers to vessel owners, size of the vessels and ability to accommodate observers 100% of the time, and the proportion of catch accounted for by these vessels.

A second important consideration is whether there is sufficient funding to provide 100% coverage of all vessels able to accommodate observers. The 1% cap on the levels of fees collected by the Research Plan is insufficient to fund the present groundfish program. The present program and increased levels of coverage cannot be provided unless the Research Plan contains provisions for a supplemental program where those required to carry observers cover the unfunded portions of the program or Congress amends the Magnuson Act to increase the 1% cap on fees.

In light of these considerations, we will be evaluating the current coverage categories for vessels and processors to determine whether changes can be made to allow a larger portion of the fishery to be accounted for by 100% coverage and still afford the program. We will also be looking at alternative methods for estimating catches from those segments of the fishery which cannot maintain 100% coverage. We must recognize that segments of the fishery without observer coverage or coverage significantly less than 100% cannot be included in individual vessel incentive programs.

Observer Coverage for Small Fishing Vessels
by Russ Kappenman

In an attempt to find an appropriate observer coverage percentage for 60 to 125 ft. vessels, some 1991 observer data were analyzed. Ten vessels with 100% observer coverage were selected from among those vessels which delivered their retained catches to shoreside processing plants and were issued fish tickets by the plants.

Attention was focused on the estimation of total bycatch of halibut by each of the vessels, and the method used was that one described in "A Procedure for Estimating Discards." (Attached) This method uses the round weights, given by fish tickets, of the species delivered to a plant by a vessel and information obtained by an observer by sampling some of the hauls which led to issuance of the fish tickets. For each sample taken from a haul, whether it be a whole haul sample or a pooled basket sample, the observer determines the weights of all species present in the sample.

The fish ticket and observer data for each of the ten selected vessels were used to perform a series of simulation studies, one corresponding to each vessel. The first step in each of these studies was the estimation of total halibut bycatch by use of all of the data for a vessel. Once this estimate was obtained, a measure of the effectiveness of any specified (less than 100%) observer coverage was found by repeatedly selecting at random a fixed number of the original observer samples. This fixed number is the specified observer coverage multiplied by the total number of hauls sampled by the observer.

Each time a fixed number of the original observer samples was selected at random, the information in these samples and the fish ticket information was used to find an estimate of halibut bycatch. The same bycatch estimation procedure was applied to the full data set and to each sub-sample from it.

One can compare the bycatch estimates obtained by repeatedly subsampling observer data with the bycatch estimate based on all of the observer data. The percentage of the time the subsample based bycatch estimates differ from the full data based bycatch estimate by, say, less than 10% may be taken to be a measure of the effectiveness of a specified observer coverage.

Our simulation studies repeatedly indicated that greater than 90% observer coverage is needed to insure that 90% of the time subsample based bycatch estimates differ from the full data based bycatch estimates by less than 10%.

A PROCEDURE FOR ESTIMATING DISCARDS

The following is a description of a procedure for estimating the amounts of various species of fish caught and discarded by the fishing fleet.

The vessels in the fleet will be grouped into the following categories:

- I. vessels which deliver the retained portion of their catches to shoreside or to floating processing plants which issue fish tickets for the round weights of species delivered.
- II. catcher-processor vessels
- III. vessels which deliver their hauls of fish to a mothership.

We will first consider the group of vessels which belong to category I, and discards will be estimated on a vessel by vessel basis for this group. For each species of interest, the amount caught and discarded by any vessel in the time period between two consecutive deliveries of retained catch by the vessel to a processor will be estimated as follows.

Suppose that k different species are delivered by the vessel to a processor, and a fish ticket is issued by the processor to the vessel. The ticket gives the round weights of the k species delivered by the vessel. Denote these round weights by T_{x_1}, \dots, T_{x_k} .

Suppose further that n of the hauls made by the vessel in the relevant time period are sampled by an observer. For the j -th sample, $j=1, \dots, n$, let x_{ij} represent the weight of the i -th processed species in the sample, for $i=1, \dots, k$, and y_j represent the weight, in the sample, of any discarded species whose catch weight is to be estimated.

If T_y represents the total catch weight of the discarded species, for the period, an estimate of T_y is

$$\hat{T}_y = w_1 r_1 T_{x_1} + \dots + w_k r_k T_{x_k} . \quad (1)$$

Here,

$$r_s = (\sum_{j=1}^n y_j) / \sum_{j=1}^n x_{sj} , \quad (2)$$

for $s=1, \dots, k$, and the coefficients w_1, \dots, w_k are given by the solution to the matrix equation

$$(w_1 \dots w_k) = \frac{E A^{-1}}{E A^{-1} E'} , \quad (3)$$

where E is the $k \times 1$ vector whose elements are all one, and A is the $k \times k$ matrix whose (s,t) element, for $s,t=1, \dots, k$, is

$$a_{st} = \frac{1}{n-1} \sum_{h=1}^n (y_h - r_s x_{sh})(y_h - r_t x_{th}) .$$

If, for a given vessel and fishing time period between two retained catch deliveries, some of the hauls taken are whole haul sampled and some are basket sampled, the two sets of samples should be treated separately. Each set would be used, as described above, to estimate discarded species weights. For each discarded species, the final discarded weight estimate, in this case, would be the weighted average

$$\frac{n_1}{n} \hat{T}_y^{(1)} + \frac{n_2}{n} \hat{T}_y^{(2)} , \quad (4)$$

where n is the total number of hauls sampled, n_1 of these were whole haul sampled, n_2 were basket sampled hauls, $\hat{T}_y^{(1)}$ represents the discarded weight estimate based on fish ticket information and whole haul sample data, and $\hat{T}_y^{(2)}$ represents the discarded weight estimate based on fish ticket information and basket sample data.

Suppose that a vessel fishes for a period of time and delivers retained catch to a processor, but none of the hauls taken during the fishing time period were sampled. The question is, can weights of species discarded, by the vessel, be estimated? Note that the estimate (1) of T_y , discarded species weight, is of the form

$$\hat{T}_y = b_1 T_{x_1} + \dots + b_k T_{x_k}. \quad (5)$$

A possible method for estimating discards in this case would be to use the most recent data from sampled hauls from the vessel to estimate the coefficients b_1, \dots, b_k , and then apply (5) along with fish ticket information to get the estimates. Another possibility would be to use current data from other vessels which are physically and operationally similar to estimate the coefficients b_1, \dots, b_k .

The following are some procedural requirements needed to make this proposed technique for estimating discards viable:

1. Each fish ticket issued to the vessels in this category needs to be matched with each of the observer samples taken from the hauls which led to issuance of the ticket.
2. Observer practices such as whole haul sampling a haul for prohibited species but basket sampling it for other species or basket sampling a haul for prohibited species and whole haul sampling it for other species must be discontinued. In other words, each haul sampled must be either whole haul sampled for all species or basket sampled for all species.
3. It may well be that some fishing vessels deliver retained catches of different species to different processors. For this case, the fish tickets issued by two or more processors to the same vessel for a common fishing effort must be matched with one another, as well as with observer samples taken from the hauls which led to issuance of the tickets.
4. Sometimes a vessel retains, for delivery to a processor, a portion of a certain species caught, and it discards the remainder. For example, a vessel may retain all pollock caught whose lengths are at least a certain length, and it may discard any pollock that are too small. For this situation, it will be necessary for the observer to determine beforehand, from the vessel operators, the characteristics which dictate which caught members of a species will be retained and which caught members will be discarded. The members of the species eligible

for retainment and the members eligible for discarding will need to be treated just as if they are separate species, when the species compositions of the samples from the hauls are determined. The weights of retainable portions of a species in the samples and the weights of the discardable portions of the species in the samples will need to be reported separately.

Procedural requirement #4 will enable us to obtain estimates of the weights discarded for species for which part of the catch is delivered for processing. Further, this requirement is necessary for making estimation of other discards as accurate as possible.

We will next consider the group of vessels which belong to category II, i.e. catcher-processors. Once again, the catch weights of discarded species will be estimated on a vessel by vessel basis.

We will assume that each catcher-processor periodically reports processed weights for the species it has caught and processed during the time that has elapsed since the last report. The processed weights will have to be converted to round weights by the use of product recovery rates. These round weight estimates are denoted by $\hat{T}_{x_1}, \dots, \hat{T}_{x_k}$, if k of the species caught by a vessel are processed.

A procedural requirement will have to be imposed on catcher-processors. Processed weights reports will have to include the haul numbers for all of the hauls which have contributed to the product weights listed in the reports.

For any such processed weights report, some of the hauls whose numbers are listed will have samples taken from them by observers. As before, for the j -th sample, $j=1, \dots, n$, x_{ij} represents the weight of the i -th processed species in the sample, for $i=1, \dots, k$, and y_j represents the weight in the sample of any discarded species of interest. If T_y represents the discarded weight of this species by a catcher-processor, an estimate of T_y is

$$\hat{T}_y = w_1 r_1 \hat{T}_{x_1} + \dots + w_k r_k \hat{T}_{x_k}, \quad (6)$$

where the w_i 's and the r_i 's are given by (3) and (2), respectively.

Of the procedural requirements listed before for observers aboard category I vessels, those numbered 2 and 4 also apply to observers aboard the vessels which belong to category II. Further, if some of the hauls sampled by an observer are whole haul sampled, and others are basket sampled, the discarded weight estimate for any discarded species is given by (4).

For the category III group of fishing vessels, it is assumed that:

- i. Each vessel in the group delivers, unsorted, each haul that it makes to a mothership.
- ii. More than one catcher vessel may be delivering to a given mothership.
- iii. The retained portions of the catches delivered to a mothership by more than one catcher are combined for processing.
- iv. Hauls delivered to a mothership are numbered.
- v. Some of the hauls delivered to a mothership are sampled by observers aboard the mothership.
- vi. The catcher vessels which deliver to the same mothership are physically and operationally similar.

If these assumptions are true, catch weights of discarded species will be estimated for each group of catcher vessels which deliver to the same mothership.

We will assume here also that each mothership periodically reports processed weights for the species caught by its delivery vessels and processed by the mothership during the time that has elapsed since the last report. The processed weights will have to be converted to round weights estimates by use of product recovery rates. If for a given mothership report, k processed weights are listed, denote the associated round weight estimates by $\hat{T}_{x_1}, \dots, \hat{T}_{x_k}$.

The same processed weights report requirement imposed on catcher-processors will have to be imposed on motherships. That is, processed weights reports will have to include the haul numbers of all of the hauls which have contributed to the product weights listed in the reports.

For any processed weights report, some, say n , of the hauls listed will have samples taken from them by observers. For the j -th sample, $j=1, \dots, n$, x_{ij} represents the weight of the i -th processed species in the sample, for $i=1, \dots, k$,

and y_j represents the weight in the sample of any discarded species of interest. If T_y represents the weight of this species caught in the hauls listed on a mothership's processed weights report, an estimate of T_y is given by (6).

Of the procedural requirements listed before for observers aboard category I type vessels, those numbered 2 and 4 also apply to observers aboard vessels which belong to category III. Further, if some of the hauls sampled by an observer on a mothership are whole haul sampled, and others are basket sampled, the discarded weight estimate for any discarded species is given by (4).

Data Contractors Incorporated

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AGENDA C-3
Supplemental
January 1992

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JAN 10 1992

January 10, 1992

Chairman Richard B. Lauber
North Pacific Fisheries Management Council
605 West 4th Avenue
Anchorage, Alaska 99501

RE: OBSERVER PROGRAM --- USER FEE FUNDING

Dear Chairman Lauber:

Our company, as a private certified contractor, has provided observers to the ADF&G shellfish program since its inception in September 1988, and to the NMFS domestic groundfish program since January of 1990. We commend the following points to the Council for consideration:

1. STIPULATE INSURANCE COVERAGES.

After extensive investigation into the insurance requirements, we must conclude that Alaska State Act Worker's Compensation Insurance is legally required by state law for Observers working in waters off Alaska. This is true regardless of whether the contracting company is domiciled in Alaska or Washington State. Some of the contractors comply with this interpretation, but others apparently do not.

Those who do not provide this coverage may cause an implied liability to reflect back on the National Marine Fisheries Service. We believe they are remiss in their obligation as a certified contractor.

We think the coverage we provide, as itemized below, should be stipulated as the minimum standard coverage each contractor should carry for the protection of the observers. This insurance includes:

- Alaska State Act Worker's Compensation
- Other States Insurance
- \$1,000,000 Employer's Liability
- \$1,000,000 Maritime Employer's Liability
- U.S. Longshoremen' and Harbor Workers' Act

Therefore, we believe the NMFS Request for Proposals should stipulate the above, or other specific coverages, that contractors must obtain.

Also, NMFS should be directed to require this insurance coverage for the remainder of the current Domestic Observer Program.

2. TRAINING, BRIEF/DEBRIEF FACILITY IN ANCHORAGE

In continuing effort to minimize costs and maximize efficiency, we support decentralization of Observer training. For years Dr. Bill Aron has said publicly he wants to get out of the training business. Here is his golden opportunity! The University of Alaska now has the facility and staff in place to do the job. We suggest NMFS be required to separately budget funds to adequately operate the training facility in Anchorage. We believe this will help to insure the supply of properly trained observers.

Expense to the industry, NMFS, and the Observer Plan can be reduced if briefing and debriefing is done in Anchorage. This vital function can be finished immediately after the observer leaves the vessel, and without the delays encountered in the Seattle bureaucracy. Costs of board and lodging for observers in Dutch Harbor and Kodiak are exorbitant, while the market economy operates in Anchorage, resulting in lower costs.

Train, brief, and debrief in Anchorage, where it costs the least amount of money.

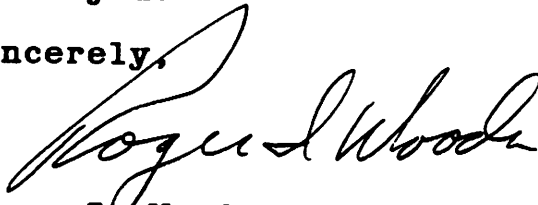
If you don't require fiscal responsibility from the agency now, you've lost your prime opportunity. Please give NMFS a firm message of your requirements.

3. OBSERVER PLAN OVERSIGHT COMMITTEE

A representative from the contractors, and one from the observer group, should be included in this committee. Viewpoints and information from these sources should contribute to the better operation of the program.

Thank you.

Sincerely,



Roger I. Woods
President

ALASKAN



15 January 1992

Don Wadhams
NOAA, WASC, Procurement Division
7600 Sand Point Way NE, BIN C15700
Seattle, WA 98115

Dear Don,

The purpose of this correspondence is to comment on certain facets of Draft Solicitation No. 52ABNF300001 ("User Fee Funded Domestic Fisheries Observer Program--North Pacific").

For the most part, I must say I found that the draft made clear what the Government will expect of those contractors who are involved in the User Fee Funded Domestic program, and at ALASKAN OBSERVERS, INC. (AOI) we look forward to writing our proposal and being involved in 1993. There were a number of aspects of the draft proposal, however, that concerned me.

The five items this letter will address are (in no particular order): a) the contractor's responsibility to provide liability coverage, b) the contractor's responsibility to insure that vessels and plants maintain safe working conditions, c) the fact that the field coordinator's position is optional and not required, d) the fact that observer housing in Seattle is not mentioned as an allowable cost, and e) the fact that salary levels are not fixed in the proposal.

a) Section C, number 3-c states that, "The contractor shall maintain an insurance program for its observers that adequately covers the contractor's liability for observers injured on the job, under applicable federal and state laws such as the Jones Act"

Contractors can obtain Marine Employer's Liability insurance, but at considerable expense, and it is unclear from the proposal if its authors understand that the fact that a contractor has liability coverage in no way protects a vessel from its own liability. In short, an observer who becomes ill or is injured on a vessel can recover from that vessel whether or not the observer's contractor carries liability insurance. There is no way (legally) that a contractor can contractually bind its observers to surrender their rights under the Jones Act.

Given the fact that fishing vessels will continue to pay for liability coverage to cover observers, the insurance

requirement published in the draft proposal provides for costly and unnecessary insurance coverage.

The picture is further clouded by the fact that the Observer Plan may call for the creation of a risk sharing pool to provide liability coverage for observers. The introduction of the outline for the Plan states, "The plan also may establish a risk sharing pool to provide coverage for vessels and owners against liability from civil suits by observers." If participating vessels pay for coverage (and they will, because they will not be foolish enough not to), then the coverage contractors pay for will be redundant; if there also turns out to be a risk sharing pool, then any coverage the contractors pay for will be that much less useful.

The added expense of the coverage called for in the draft proposal will be considerable, and it would seem that the NMFS can ill-afford to squander the resources of the user fee program in this way.

If, after considering the above, the NMFS decides to stand by the insurance requirements as published in the draft plan, it would make the most sense to require all contractors to carry exactly the same coverage. This will prevent any one contractor from underbidding the others by buying less expensive "look alike" MEL (Marine Employers' Liability) coverage that, when tested in an actual incident, may not in fact fulfill the objectives the NMFS has for this insurance requirement. By requiring all contractors to carry the same insurance, NMFS can assure that all observers will receive the protection it intends.

b) Section C, number 3-h states that contractors will be responsible for "Insuring the vessels and plants on which the Contractor stations observers maintain safe working conditions on the vessel or in the plant for the protection of the observer." Though it makes for good copy, in fact this statement amounts to little more than the NMFS abdicating one of its administrative responsibilities as delineated in the Federal Register/Vol. 55, No. 29/Monday, February 12, 1990. On page 4840, under "Responsibilities of NMFS," NMFS is charged with establishing a "policy with respect to observer safety."

Perhaps one way for the NMFS to establish such a policy is to tell the contractors to take care of it. The authors of the draft proposal should realize, however, that by so delegating

the job they are virtually assuring that in many situations it won't get done. Particularly troubling will be vessels which meet or exceed Coast Guard regulations as regards seaworthiness, but are dangerous for other reasons.

For instance, imagine a small, 30% vessel whose skipper and crew are abusing alcohol and other drugs while the vessel is in operation. The observer assigned to the boat feels at risk not because the vessel is unseaworthy, but because those running the vessel are. The observer refuses to ride the boat; his or her contractor backs this decision. The Coast Guard boards the vessel and finds no drugs. The contractor explains the situation to the NMFS; the NMFS puts the problem back in the lap of the contractor, saying, in effect, "It's not our job to worry about this." At this point, the contractor is in a bad spot, left either to put another observer on the boat (knowing it is unsafe to do so), or to refuse coverage and risk being put out of business by a lawsuit the vessel may well bring to recover for lost fishing time.

No contractor can seriously be expected to deny a given vessel coverage until some mechanism is established to protect that contractor from legal retaliation by the affected vessel. Contractors are not government agencies; having no authority other than the slender instructions contained in the draft proposal, contractors will be unable to insure safe working conditions for their observers. The only tenable way to insure safe working conditions for observers is to give the NMFS final say in any decision not to cover a suspect vessel or plant. Using information gathered from observers, contractors, fishermen, and (when obtainable) the Coast Guard, the NMFS would be in a position to make balanced decisions and then stand by them. With the NMFS both deciding when a given vessel is unsafe and then handling the static that will inevitably follow, observers would have some reason to hope that standards as regards their working conditions would be upheld.

c) Section C, number 3-f states, "Provision of field coordinators to facilitate deployment, logistics, briefing and debriefing of observers is at the discretion of the Contractor"

AOI has had a field coordinator stationed in Dutch Harbor since the inception of the Domestic Groundfish Observer Program. We have demonstrated that the presence of the field coordinator is invaluable when a large number of vessels need

to be covered. Logistical problems, illness, harassment-- these things are as likely to occur at 2:00 a.m. as 2:00 p.m., and by having a field coordinator in Dutch we are able to deal with such events in a timely fashion. Because we hear about problems early, we avoid situations that lead to the suspension of sampling. In addition, the field coordinator often faxes observer catch messages to Seattle at late hours or on weekends, when the Dutch Harbor NMFS office is closed, and notifies observers via single side-band when garbled or missing catch messages need to be re-sent to the NMFS, thereby improving the timeliness of observer reporting.

Because we have a field coordinator to act as overseer, we are also able to maintain bunkhouse facilities in Dutch Harbor as well. Having a place for observers to rendezvous when they are in port improves morale, and it would be a mistake to underestimate the importance of this in a job that is otherwise isolating.

By making the position of field coordinator optional, the authors of the draft proposal put the contractor who decides to include the position at a significant disadvantage when compared on a cost basis with contractors who do not include the position. More importantly, the authors of the draft proposal should realize that if the NMFS chooses to award all or part of the contract to contractors who do not employ field coordinators, it is the observers who will be cheated. I think a better course for the NMFS to follow in the final version of the proposal would be to make the field coordinator position a required position.

d) The draft proposal makes no mention of housing observers while they are in Seattle. Though observer apartments are not specifically excluded, it is at least possible that they would not be considered an allowable cost by the contracting officer. I suggest that the final version of the proposal should contain language that makes clear that housing in Seattle is an allowable cost.

AOI provides housing at several apartments in Seattle. Observers are able to stay in these apartments before training, while awaiting deployment, and during debriefing. The apartments benefit observers in two crucial ways. First, not every observer is financially able to support him or herself in Seattle while attending training. Though they are paid for this time, they do not receive any paychecks until training is completed. I am familiar with the heroics past observers have gone to in order to survive during such lean

times. While stories of observers sleeping in their cars and dining on canned tuna and pork and beans may be colorful in the telling, observers who actually live under such circumstances are hardly in a position to focus on the work at hand, which is, finally, their training. By providing observers a place to live during training, a contractor enables its observers to concentrate fully on their responsibilities as observers.

Apartments also serve a second function, one less basic but no less important than providing housing: apartments are significant in establishing and maintaining observer morale. Living and studying with fellow-trainees, our observers develop a certain esprit de corps. They realize that they are involved in a common undertaking, and they take with them into the field a sense of the importance of their work.

e) Salary levels are described only as "level 1," "level 2," and "level 3" in the draft proposal. Considering that the proposal's authors say, "The contractor is required to develop and implement a program which shall provide and maintain a corps of observers who shall make repeated observer trips," I find it noteworthy that "level 3" is the most an observer can earn--even if he or she makes half a dozen or a dozen trips. More important still is the fact that the draft proposal does not set precise or even minimum salary levels. This provides an avenue for contractors to take when trying to trim cost proposals--they can lower observer salaries.

By setting observer salary levels, the NMFS would accomplish at least two things. First, contractors would be forced to compete with one another more on the strengths of their technical proposals, since they would have less room to maneuver on their cost proposals. Second, and more important still, fixed salary levels would protect observers from pay cuts that might otherwise come with the user-fee system. Make no mistake--pay cuts would translate directly into fewer prior observers, and into less dedicated observers at all pay levels. Safeguarding observer salaries is crucial, particularly now, when observers are being told their duties in various incentive programs are expanding into areas removed from field biology and near to enforcement.

The implementation of the user fee funded program in 1993 gives the NMFS an opportunity to give the observer program direction for the coming years. Though the NMFS is certainly the center of the

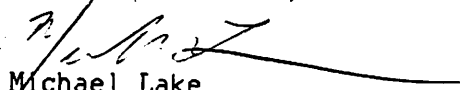
existing program, it currently lacks the oversight authority a user fee funded program would afford. My concern is that 1993 will be more noteworthy for the opportunities lost than those seized.

If observer salaries take a hit at the user fee program's inception, building them back up will be difficult if not impossible. If field coordinators are not in place at the start of the program, it's not likely we'll see field coordinators again in the future. If observers are not provided housing in Seattle in 1993, it's not likely they'll see housing in 1994. If no workable mechanism for ensuring the safety of observer working conditions is in place in 1993, this issue, too, will fall by the wayside. That the authors of the draft proposal made clear the need for retaining prior observers is admirable. Still, the NMFS must provide a framework for accomplishing this. I am concerned with our ability to attract and retain prior observers, and it is this concern that unites the content of this letter. Even the issue of insurance is pertinent, since the draft proposal makes clear that the NMFS is intent on spending resources on P&I insurance of questionable value while observer salaries go undefended and observer housing goes unmentioned.

Thank you for considering these comments. I look forward to your reply.

Sincerely,

ALASKAN OBSERVERS, INC.



Michael Lake
President

cc: North Pacific Fisheries Management Council

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