


MEMORANDUM

TO: Council, SSC and AP Members

FROM: Clarence G. Pautzke 
Executive Director

DATE: April 5, 1989

SUBJECT: Comprehensive Data Gathering Program

ACTION REQUIRED

Receive report from the Groundfish Data Committee and approve data amendment for public review.

BACKGROUND

In January the Council reviewed several groundfish amendment proposals which included requests for a logbook program and mandatory observer requirements. The Council chose to combine these proposals and directed its Groundfish Data Committee to develop a comprehensive data gathering program as an amendment to the groundfish plans.

The Committee met in Seattle on March 8 with its Data Technical Team to review progress on the amendment package. Their meeting is summarized as item C-6(a). The amendment encompasses a review of the existing reporting requirements and data gathering programs, and advances a single program designed to fulfill the Council's data needs in two major areas:

- (1) Recordkeeping and Reporting Requirements; and
- (2) Observer Program.

The draft amendment document was sent to you last week. Members of the Committee and Technical Team met again this week and will summarize the proposed amendment and any further refinements.

Designing a comprehensive data gathering program to meet the data needs of the Council and fishery managers is very complex considering the implementation, administration, enforcement, and cost elements. It is apparent that the Data Committee will need to continue to refine the proposed program and prepare the necessary background information during the spring to allow the Council to choose among the alternatives at its June meeting. One of the more important considerations is costs of the program and funding sources. Both of these issues will be thoroughly explored by the Committee. Voluntary contributions may be one approach for funding the program. Voluntary contributions made to date are summarized in items C-6(b and c).

On page 6 of their report, the Committee recommends that both parts of the amendment package be sent out to public review recognizing that the observer portion may need further work. The Council could then decide in June whether that part was satisfactory for submission to the Secretary.

DRAFT
Summary of the North Pacific
Fishery Management Council

Data Gathering Committee Meeting
March 8, 1989
Northwest & Alaska Fisheries Center
Seattle, Washington

The Data Gathering Committee of the North Pacific Fishery Management Council met at the Northwest and Alaska Fisheries Center (NWAFC) in Seattle during March 8, 1989. The primary purpose of the meeting was to receive a status report from the Committee's Data Technical Team and provide guidance and recommendations on the development of a comprehensive data gathering program. A secondary purpose of the meeting was to begin exploring funding sources for the program.

Committee members in attendance were: Oscar Dyson (Chairman), Larry Cotter, John Peterson, Henry Mitchell, Ron Hegge, Paul Clampitt, Phil Chitwood, and Dave Fraser. Technical Team members present were: Rich Marasco and Doug Eggers (Co-Chairmen), Dale Evans, Mike Watson, and Steve Davis. Supporting both groups were: Loh-lee Low, Joe Terry, David Flannagan, Dave Carlile, and Peter Craig. Two members of the public were in attendance.

I. INTRODUCTION

Chairman Dyson opened the meeting by introducing the committee members in attendance and presented a draft agenda (Attachment 1): Steve Davis provided a general review of the Technical Team's progress to date. The technical team's assignment consists of five parts: (1) to identify data needs for fishery management; (2) to review the current existing data gathering program and determine where the program can be improved; (3) to develop what constitutes a comprehensive data gathering program; (4) to develop a program that will provide data with a relatively high statistical reliability; and (5) to develop options and prepare an amendment package.

The Technical Team has been working on this assignment since mid-January. It has identified the following general data need categories which a comprehensive data gathering program must address to fulfill the requirements of the Council, the Magnuson Act and other federal law:

1. Inseason management data needs.
2. Biological data needs.
3. Economic data needs.

II. STATUS REPORT ON COMPREHENSIVE DATA GATHERING PROGRAM

Loh-lee Low presented a general introduction to the draft data gathering program. The program is comprised of two parts, which in combination provide the methods for fulfilling the identified data needs.

Part A. Recordkeeping and Reporting Requirements

Dale Evans summarized the development of this part of the program. He described the technical team's review of existing reporting requirements and noted several proposed modifications including changing the units used in the weekly catch report to product weight rather than round weight (Attachment 2). NOAA Fisheries intends to publish annually a conversion table that will be used in subsequent conversions of the reported product weights to round weight. NOAA believes that the burden of converting the figures should be on the agency rather than the industry. Mr. Evans also proposed deleting the current requirement for fishermen to report discards. The Technical Team believes that these data will be more reliable if obtained from observers.

Henry Mitchell commented that he did not like removing the current discard and prohibited species reporting requirements. Other Committee members agreed that having to record and report discard information keeps bycatch at a high level of awareness and that there may be some benefit in keeping that requirement.

Steve Davis and Doug Eggers described the Technical Team's objective of developing a comprehensive program. The cost of some parts of this program will be borne by the industry. The Technical Team is trying to remove existing data/gathering requirements that will not be used. The Technical Team at this point is working on the assumption that if observers are present and collecting discard data, then that reporting burden need not be placed on the fishing industry. Dr. Eggers mentioned that managers can compare landed catch figures to see if observed vessels are fishing in the same manner as unobserved vessels. Logbook entries on discards would not necessarily be used for this purpose. He cited the State's crab observer program as an example.

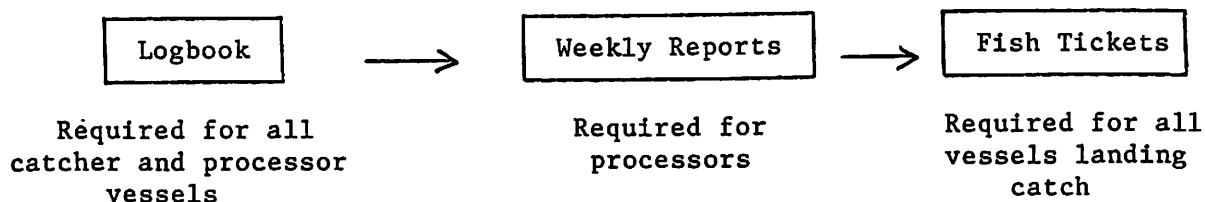
Oscar Dyson commented that the use of observers is the better way to collect discard and prohibited species data.

Larry Cotter added that vessel reporting of discards may be very valuable in determining what fisheries and vessel categories to place observers.

John Peterson mentioned that it is important to have discard information reported so it maintains a high profile. Even though it may be difficult to convince those in Washington, D.C. that this data requirement is important, this data field should remain in the logbook at this time.

Dave Flannagan illustrated how the logbook/reporting requirements are administratively designed to provide important data to managers and for enforcement.

Recordkeeping Requirements Reporting Requirements Reporting Requirements



Ron Hegge commented that discard data ultimately may be desirable from every vessel if the Council implements a management plan that administers individual vessels target catch and bycatch. Mr. Hegge also requested that the Technical Team investigate a State regulation requiring vessel captains to sign fish tickets. Peter Craig said he understands that processors have been authorized to sign fish tickets on behalf of the vessel captain, but will research this question further for the committee.

Joe Terry presented a general summary of the types of effort data needed from the fleet.

For: trawl vessels	-	crew size, duration time of haul, number of hauls
pot vessels	-	crew size, soak time, number of sets and pot lifts
longline vessels	-	crew size, soak time, number of sets and skates.

This information is valuable for stock assessment (i.e., catch per unit of effort analysis) and economic analysis. Dr. Terry described how these data are recorded in the logbook and made available to observers when requested.

Dave Fraser commented that effort may change depending on the target species. Haul time could differ from day to day if a fisherman is targeting on cod and then pollock for example. Catch and effort data would have to be provided in sufficient detail to distinguish hauls from one another.

Dr. Terry continued his summary by discussing management needs for value and price data. Currently these data are required on fish tickets. In some transactions, prices are known and ADF&G can step up its efforts to increase compliance with these regulations. This type of information is generally lacking from the catcher/processor sector. It should be possible to tabulate this information by month, for either monthly or annual submissions to NOAA. Dr. Terry concluded his report by mentioning that cost data could be provided by periodic surveys of the industry.

Phil Chitwood mentioned how his company is already providing value/price data in an annual summary to ADF&G.

John Peterson noted that fish ticket data are exvessel and that catcher/processor data would present value in terms of a "sales-based estimate."

Oscar Dyson asked why management couldn't use basic exvessel data and apply it to groundfish tonnages taken/processed at-sea? This and other questions should be addressed in the amendment package.

Mr. Dyson then suggested that the Council consider phasing in the economic data aspect of the program.

Steve Davis explained the importance of developing a single, comprehensive data gathering program. The Council at various times has commented that the existing program is inadequate and that it contains built-in inefficiencies. An improved data gathering program that takes the best of the current system

and combines it with a domestic observer program is their long term goal. Should the Council in June determine there are insufficient funds or other administrative obstacles preventing full implementation of the program this year, it can prioritize its data requirements and develop a phased-in schedule for the rest of the package.

Mr. Dyson and Mr. Peterson agreed that this approach seemed reasonable.

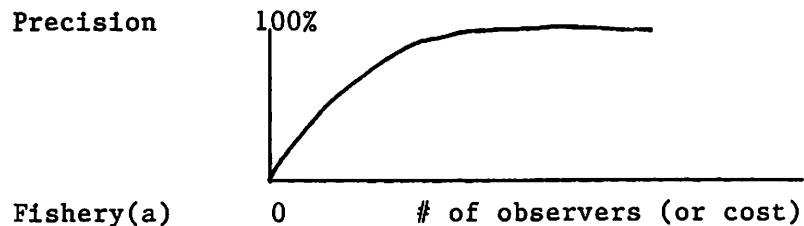
Phil Chitwood commented that the Technical Team should look at some way of combining the fish tickets with the weekly report submitted by catcher/processors. He believes there is unnecessary duplication with these two reports.

Part B. Domestic Observer Program Requirements

Dr. Low presented an overview of the Technical Team's draft observer program (Attachment 3). As with Part A of the comprehensive data gathering program (the logbook/reporting requirement section), the observer part is designed to help provide inseason management, stock assessment, economic, and other biological data needs. For example, the Technical Team believes that observers provide the best method of collecting catch weight, species composition, discard estimates, biological specimens, vessel characteristics, and effort data. He noted that the lowest common denominator, statistically, is to develop an observer program that will provide statistically reliable bycatch estimates. A program that satisfies this particular need will easily provide reliable information for other management needs. Dr. Low then summarized the draft alternatives for the Committee.

The Committee discussion quickly focused on the degree of observer coverage. Dr. Low presented information showing that roughly 50% of the groundfish fleet is under 50' in length and it is likely that these vessels may not be able to take observers. One of the alternatives being developed would framework the program so that the Council and Secretary could vary levels of observer coverage as statistical reliability and funding priorities change.

Dr. Eggers and Dave Carlile described a mathematical procedure which could be utilized in producing graphs showing the trade-offs between precision and dollar costs for different fisheries. These illustrations would be useful to the Council in determining desirable coverage and its costs.



Larry Cotter mentioned that he believes the Committee should focus on all vessels taking observers above a certain size. An option could be to eliminate certain fishery categories (e.g., mid-water pollock) and concentrate available observers on those vessels/fisheries that take bycatch. Another option could be to develop a minimum level of coverage for all fisheries, and once that minimum is met, concentrate surplus observers to those fisheries the Council is interested in. Members of the Technical Team agreed to factor this comment into its draft.

Dave Fraser commented that he wants to see developed a data system that is used to manage the groundfish fishery. In the DAP world, catch capacity far exceeds processing capacity, therefore discards of groundfish need to be a top priority of an observer program.

John Peterson agreed and noted the substantial waste of groundfish that is likely occurring. Without a better understanding as to the magnitude of the discards, the Council could be facing an overfishing situation in the near future. He believes this topic could become a major issue soon.

Paul Clampitt mentioned that another observer function should be to collect data from daily logbooks and transfer logbooks. It's important to improve the monitoring of at-sea transfer of product.

III. FUNDING

Oscar Dyson introduced this subject by noting that funding has always been a basic problem in any data gathering program.

John Peterson presented four possible funding alternatives:

1. Voluntary funding programs.
2. Obtain a direct appropriation from the Federal government.
3. Amend the Magnuson Act [Sec. 303(b)(2)] to require the payment of fees (or cost recovery funds) by the users for a data program. Such a collection of fees should be evenly distributed across all segments of the industry.
4. Retention and sale of prohibited species as a possible source of funds.

As mentioned previously, the fishing industry is nursing an explosive issue: the wastage of fishery resources. A halibut retention program for example, would begin to address this issue while providing a source of funds. If could be identified in the market as trawl or longline bycatch halibut. Observers would be required to monitor these catches.

Larry Cotter agreed that resource wastage is a major problem, one that the Bycatch Committee has been attempting to address in part. He added another funding alternative:

5. Mandatory observer requirements, whereby the users pay observer costs directly.

Mr. Cotter also described efforts by several fishermen's associations (both in the U.S. and Canada) to generate funds from their membership for an observer program.

Ron Hegge supports mandatory contribution toward an observer program. He is opposed to using bycatch for funding. He believes that this product could have an adverse impact on the market and could provide an incentive for targeting.

Paul Clampitt mentioned that his association is self-assessing a fee for use in funding a domestic observer program.

Henry Mitchell added that state fishermen (herring and salmon) should also participate in this funding effort. These fishermen are also interested in bycatch. The broad base in funding sources would likely require a broad focus in use of observers.

Dale Evans added that the question "who pays?" is an important question that needs to be addressed in the amendment package.

IV. AMENDMENT PREPARATION

Steve Davis reviewed proposals on the amendment package to date, and from his perspective:

It appears that the first half of the comprehensive program, Part A, the Recordkeeping/Reporting requirements, is on track and pretty well developed. In view of the Committee's discussion of the observer program, Part B will require additional development and analysis. Mr Davis presented three options for presenting the amendment to the Council:

1. In April present only Part A and a status report on Part B. Part A would go out to public review with final action in June. Part B would come to the Council when the Committee finds it ready.
2. Hold back Part A until Part B is fully developed and analyzed. Submit both parts as a single program to the Council when ready.
3. In April present a single data program with Parts A and B. Part B may require further development, but at a minimum, a general description of the observer program and a general analyses can be provided for public review. In June the Council will receive the final amendment package when Part B will be more fully developed and analyzed. At that time the Council can determine whether to submit the entire data program for Secretarial review or prioritize various elements in light of public comment, budget and administrative concerns, and need for further analysis.

Mr. Davis recommended that the Committee select option 3 so that a single comprehensive data gathering package can remain on track. The Committee favored this approach and the Technical Team was so directed.

V. FINAL COMMENTS

Henry Mitchell recommended that the Technical Team include discard and prohibited species reporting fields in the logbooks. The full Committee agreed that at a minimum it should be presented to the Council as an option.

Dale Evans mentioned that funding options and other observer options (i.e. 0-100% coverage) should be included in the April amendment package.

Larry Cotter volunteered to prepare a discussion paper on funding alternatives for the Committee.

Oscar Dyson directed staff to schedule the next meeting of the Committee for Monday evening, 7:00 p.m., April 10 during Council week. The Committee will meet to review the draft amendment package and discuss funding alternatives.

The Committee adjourned at 4:00 p.m.

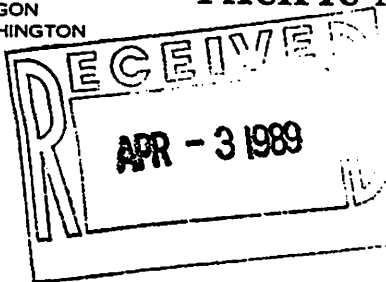
AGENDA C-6(b)
APRIL 1989

MEMBER STATES

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CALIFORNIA
IDAHO
OREGON
WASHINGTON

PACIFIC MARINE FISHERIES COMMISSION

EXECUTIVE DIRECTOR
GUY N. THORNBURGH
TREASURER
G. L. FISHER



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2000 S.W. FIRST AVENUE
PORTLAND, OREGON 97201-5346
PHONE (503) 294-7025

M E M O R A N D U M

DATE: March 27, 1989
TO: Clarence Pautzke, NPFMC
Ted Evans, Alaska Factory Trawler Assn.
Contributors
FROM: Pam Kahut, PMFC *Pam*
SUBJECT: Pledges for North Pacific Data Collection Program

Attached is a listing of individuals/associations we have received funds from for the North Pacific Data Collection Program.

Feel free to call if you have any questions.

cc: Guy Thornburgh, PMFC

3-27-89

Funds Received for Pledges
on North Pacific Data Collection Program

<u>Agency/Assn</u>	<u>Amount</u>
Funds collected at NPFMC meeting	
Tom Casey	\$ 150
Paul MacGregor	150
Oscar Dyson	100
Bob Alverson	100
John Peterson	100
Linda Kozak	100
Ted Evans	<u>100</u>
	\$ 800
Alaska Longline Fisherman Assn. Box 1229, Sitka, AK 99835	\$5,000
Alaska Seafood Producers Inc. 4385 Yaquina Bay Rd. Newport, OR 97365	\$1,000
Venture Fisheries 4385 Yaquina Bay Rd. Newport, OR 97365	\$1,000
John R. Gilbert 11025 Lakeside Ave., NE Seattle, WA 98125	\$ 200
Alyeska Seafoods Inc. P.O. Box 275 Unalaska, AK 99685	\$10,000
Wards Cove Packing Company P.O. Box C-5030 Seattle, WA 98105-0030	\$10,000

COMMERCIAL FISHERIES

NEWS RELEASE



ALASKA DEPARTMENT
OF FISH & GAME

STATE OF ALASKA
Department of Fish and Game
Don W. Collinsworth, Commissioner

Westward Region
211 Mission Road
Kodiak, AK 99615

Ken Parker, Director
Division of Commercial Fisheries

Contact: Peter Craig
Groundfish Coordinator

IMMEDIATE RELEASE

Date: March 31, 1989

ADF&G DOMESTIC OBSERVER PROGRAM

The Alaska Department of Fish and Game is again pleased to announce that supplementary funding for ADF&G's domestic observer program has been provided by several groups.

The International Pacific Halibut Commission contributed \$30,000 to the program in 1988 and \$60,000 in 1989. These funds have been used to increase observer coverage of bottom trawl and longline fisheries.

The Alaska Fisheries Development Foundation provided a \$35,000 grant to ADF&G to increase observer coverage of Kodiak's developing flatfish fishery at Eagle Fisheries Inc. Eagle Fisheries will continue this program by providing approximately \$24,000 later this year.

Until a major domestic observer program becomes a reality, such cooperation and coordination is essential and much appreciated.

ALASKA GROUND FISH

SHORESIDE PROCESSOR PRODUCT TRANSFER LOG

National Marine Fisheries Service
 P.O. Box 21668, Juneau, AK 99802
 Telex: RCA 45-377 NMFS AKR JNU
 Rapicom: 907-586-7131
 Telephone: 907-586-7229

Page #	
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Representative _____ Phone Number _____ Fax or Telex Number _____

Plant Name _____ Alaska State Processor Code _____

A. Name of other agent involved in transfer (if a vessel, list port of landing in Part C, below).

B. Date and Time of Product Transfer

Start: Date _____ Time _____ (GMT)

Finish: Date _____ Time _____ (GMT)

C. Intended designation of agent receiving product (including port of landing of vessel receiving product transfer):

D. Products and quantities offloaded:

SPECIES	PRODUCT CODE	NO. OF CARTONS	*CARTON WT. KG OR LBS	SPECIES	PRODUCT CODE	NO. OF CARTONS	*CARTON WT. KG OR LBS

*Net weight of one carton, in kilograms or pounds (indicate which).

ALASKA GROUND FISH

FLLOATING PROCESSOR PRODUCT TRANSFER/OFFLOADING LOG

National Marine Fisheries Service
 P.O. Box 21668, Juneau, AK 99802
 Telex: RCA 45-577 NMF5 AKR JNU
 Rapicom: 907-586-7131
 Telephone: 907-586-7229

Page #	Receive	Offload

Representative

Phone Number

Fax or Telex Number

Vessel Name

Federal Permit Number

Call Sign

A. Other vessel involved in transfer (if landed, list port of landing):

Name of other vessel Federal Permit Number Call Sign

B. Date and Time of Product Transfer

Start: Date _____ Time _____ (GMT)

Finish: Date _____ Time _____ (GMT)

C. Position Transferred

Latitude: _____ N Longitude: _____ W,E

D. Intended port of landing of vessel receiving product:

E. Products and quantities offloaded:

SPECIES	PRODUCT CODE	NO. OF CARTONS	*CARTON WT. KG OR LBS	SPECIES	PRODUCT CODE	NO. OF CARTONS	*CARTON WT. KG OR LBS

April 7, 1989

REPORT NO. 1 - INDUSTRY/NMFS OBSERVER PROGRAM

The NOAA/Industry Matching Funds Domestic Observer Program was initiated by the Alaska Factory Trawler Association (AFTA) as a program to help "bridge the information gap caused by the marked decrease in the joint venture trawl fisheries and the absence of observed fisheries in the line and pot fisheries." AFTA contributed \$100,000 to the program and invited other industry organizations to contribute. AFTA also pledged to match up to \$400,000 on a dollar per dollar basis as industry associations contributed money in excess of the initial \$100,000. The following associations and individuals responded by contributing funds to the program: Alaska Longline Fisherman Association, Alaska Seafood Producers, Inc., Venture Fisheries, John R. Gilbert, Tom Casey, Paul MacGregor, Oscar Dyson, Bob Alverson, John Peterson, Linda Kozak, and Ted Evans. The National Marine Fisheries Service (NMFS) contributed an additional \$125,000, bringing the total amount contributed to approximately \$230,000. The funds provided by NMFS were available almost immediately; the funds contributed by industry will be made available to NMFS as a gift. The process for accepting the gift is underway.

Our estimate for the total cost of an observer month is \$7,500, which includes observer salary, benefits, travel and NMFS program administration, data management and sampling costs. On this basis, the program should provide enough funds for approximately 30 observer months of observer sampling. Participation in the program by vessel owners is on a voluntary basis.

Observers for the program are being provided through the NMFS observer contract with Frank Orth & Associates, Inc. of Bellevue, WA. Four observers provided by Frank Orth & Associates, Inc. were briefed in a four-day training session conducted by the Northwest and Alaska Fisheries Center's Observer Program during the week of March 6 for observing on domestic trawlers and longline vessels. AFTA helped insure the placement of those first observers by providing the names of three vessels owned by AFTA members that were willing to take observers. Final scheduling arrangements were made and observer Gary Henry boarded the Northern Eagle March 11th, Nicole Buxton boarded the Royal King March 17th, and Craig Hayslip boarded the U.S. Enterprise March 17th. All three vessels are catcher/processors currently fishing in the Bering Sea. The fourth observer, Martin Loefflad, is presently in Dutch Harbor where arrangements are being made to have him observe on a number of vessels making shoreside deliveries to processing plants in Dutch Harbor. Two more observers will be hired and briefed during the week of April 10th.

A letter from NMFS Alaska Regional Director Steven Pennoyer is

being sent to participants in the Alaska groundfish fishery to explain the program and request the participation of vessel owners in allowing observers aboard their vessels. To date, approximately 125 copies of the letter have gone out to the owners of trawlers, longline vessels, fishing associations, and contributors to the program. NMFS plans to make follow-up phone calls to the recipients of the letters to arrange additional vessels for observers.

The Center's Observer Program will be providing periodic reports on the progress of the program. If you would like to receive a copy of this report please contact Ms. Angela Luis of the Observer Program (telephone number 206-526-4195). Any vessel owner wishing to participate in the program should contact either Ms. Luis of the Observer Program or Ms. Claire Armistead of Frank Orth & Associates, Inc.

SALTWATER INC.

540 L Street, Suite 202 Anchorage, Alaska 99501
Phone (907) 276-3241 Fax (907) 258-5999

April 6, 1989

John Peterson, NPFMC Chair
Oscar Dyson, NPFMC Data Gathering Committee Chair
Council Family

Dear John, Oscar, and Council Family,

It appears that observers are coming to the domestic fisheries in the North Pacific. I know that you and many others have been working to find funding and to design a data plan which will provide the Council and others with appropriate information to make management decisions. Because those are big issues I fear that another big issue -the administrative structure of the program - is receiving less attention.

The way the observer program is administered will have a tremendous impact on its cost and effectiveness. In addition, the administrative design involves significant policy issues about the roles of different agencies and organizations. For those reasons I urge the Council family to think about how the program should be structured. Believe me, the forces are already in motion to design it. If the Council and the industry wants to have some influence, you need to act now.

The following ideas are meant to get the discussion going, not be the Rosetta stone. They assume that funding and a good data plan exist. Once those problems are solved, the critical factors for a good observer program seem to be:

- 1) the observers and data must be credible
- 2) the program must be professionally run
- 3) the program must be cost effective (designed to maximize the amount of money going to data collection rather than overhead or empire building).

With that in mind here are some ideas to consider....

1. Establish one umbrella observer program for the North Pacific.

Last time I counted there were 10 different observer programs operating off Alaska. That is wasteful, confusing, and certainly not leading to a useful data base. Why not standardize reporting procedures, training, compensation, insurance, and have one observer program capable of collecting data on marine mammals, sublegal crab, bycatch, and all the other data questions before us?

2. Standardize reporting procedures following the fish ticket model.

One of the reasons we have so many programs right now is because of a lack of coordination between agencies and turf battles. I think the administrative structure currently used for fish ticket data might provide a solution which is workable, agreeable, and cost effective. Under the "fish ticket model", NMFS is in charge of reporting

requirements and procedures, and ADF&G provides field support under contract to NMFS. If we applied this model to an observer program, observers would get off boats, be debriefed at the nearest ADF&G field office or Anchorage, the data would be computerized by ADF&G, and flashed to the NWAFC.

This model saves NMFS the cost of additional field people, and it also saves the costs of flying all of the observers back to Seattle to organize their data with their contractor, and then be debriefed at NWAFC. In addition, it gets the data quickly and with the least handling into the hands of the managers at NMFS and ADF&G.

3. Standardize training and compensation for observers.

The agencies involved in the various observer programs should, with industry help, determine a standard curriculum necessary to train these "all purpose" observers. Once the curriculum is established let various groups (Universities, Sea Grant, NMFS, ADF&G or private companies) compete through an RFP process to provide the training. That competitive process, rather than just assuming it should go to one group or another, will assure some accountability for both costs and quality. The same applies to the actual employing of the observers - recruiting, screening, hiring, paying, insuring, and deploying - let it go out for competitive bid to ensure some accountability.

To be successful this program will have to attract good people. They should be well paid, and the pay should be standardized to ensure fairness. Ideally, the program will help all of us by providing at-sea experience for people who will then go on to contribute in industry, fish management, and academia.

4. Make Anchorage the point-of-hire.

I smile as I write this thinking of the eyebrows it will raise. As we all know, the foreign observers point-of-hire was Seattle. That means observers were paid starting in Seattle and for their plane ticket to Anchorage (roughly \$400 roundtrip). Whether observers are coming from Des Moines or Shaktoolik, and whether they are flying to Port Moller or the Pribilofs, they will have to fly through Anchorage. (The exception will be observers who live in Kodiak or Dutch Harbor or some other port town.) Let's assume that 20 observers are deployed each month, if you deploy them from Anchorage as opposed to Seattle, you immediately save about \$100,000 each year in air fare. Why not?

I hope these ideas provide some food for thought.

Best Regards,



Nancy Munro
President